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In Plain Sight: A Rapid Review of the International Literature and a National Estimate of the Prevalence of Women Who Use Substances and Experience Domestic Violence in Ireland.

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Abstract

According to the World Health Organization, violence against women is a major public health problem as well as a violation of women's human rights. This research aimed to understand the unique needs, internationally, of women who experience both substance use and domestic violence and to provide the first estimate of the hidden prevalence nationally in Ireland, based on figures from 2020.

A well-defined rapid literature review was conducted. A defined rapid review utilises the standard systematic methodology and also adheres to the Preferred Reporting Items for SysteMAmatic reviews checklist (PRISMA). For the national prevalence estimation, indirect estimation techniques using benchmarks and multipliers, as recommended by the European Monitoring Centre for Drugs and Drug Addiction, were used.

Within the review a total of 4,136 articles were originally retrieved from the databases. Following further detailed screening using strict inclusion and exclusion criteria, 14 articles of sufficient quality and relevant content were deemed eligible. The review found that women who use substances and experience domestic violence suffer additional depression and Post-Traumatic Stress Disorder. They have additional challenges with sexual wellbeing, infectious diseases, and reproductive health. Fears were also expressed about the perpetuation of domestic violence intergenerationally. Motherhood, pregnancy, and loss of care of children was also a constant fear and a barrier to accessing services.

A national minimum multiplier of 3% (95% CI of 2.15% to 3.85%) derived from a European general population survey was applied. The benchmark of women who use substances was derived from the EMCDDA informed general population survey on substance use in Ireland. The first estimates of the minimum scale of the hidden prevalence revealed that in Ireland, in 2020, at least 11,000 women suffered the duality of hidden domestic violence and personal substance use within that year alone. Furthermore, at least 48,000 of women who used substances in 2020 had experienced these challenges in their lifetime.

Women who endure violence in their homes and who use substances are unseen and their needs unknown. They are forced to experience a duality of secrecy for the protection of themselves and their children. This research provides the first minimum estimate of national prevalence, and the review provides evidence on the need for accessible, targeted, and specific interventions.

Based on these findings, a range of recommendations at the individual, community, service, and policy levels have been provided.

1.0 Background and Introduction

The SAOL Project is a community centered initiative whose mission, in its 26-year operation to date, is to improve 'the lives of women affected by addiction and poverty.' Understanding, tending to, and advocating for the needs specific to women who use drugs, are integral aspects in the move towards achieving this goal. SAOL offers non-judgmental and vital help and support to women, and their children, anywhere along their journey with addiction. A growing issue observed by SAOL has been the number of women seeking support for domestic abuse and/or violence and, out of this, the DAVINA (Domestic Abuse Violence Is Never Acceptable) Project began. The project aims to understand the particular needs of women who experience substance use as well as domestic violence, how they may be uniquely impacted by the duality of their situation, and to offer recommendations on how to better serve these women, and their children (SAOL, 2021).

There are many types of abuse against women which fall under the umbrella of domestic violence. These acts can be in the form of physical assault, emotional abuse, financial or coercive control. While conventionally domestic violence was synonymous with physical abuse, this class of violence goes beyond physical assault and aggression. Furthermore, the term perpetrator can be extended to include not only the woman's spouse or intimate partner, but also anyone who has a close relationship or lives with the woman (Cosc, The National Office for the Prevention of Domestic Sexual and Gender Based Violence, 2010). Domestic violence describes a pattern of abusive and controlling behaviour but also includes isolated events. While in Ireland there is currently no criminal offence of Domestic Abuse, the umbrella term allows this offence to be charged under several violent crimes (Cosc, The National Office for the Prevention of Domestic Sexual and Gender Based Violence, 2010). The below figure outlines the types of domestic abuse.

Figure 1: A summary of domestic abuse typologies according to TUSLA Website (TUSLA, 2021)

In 2017, the World Health Organisation (WHO) alongside the United Nations (UN), established an inter-agency working group (VAW-IAWGED) to monitor and measure violence against women on a global scale (WHO, 2021). While this has improved access to data, caution must be used when interpreting certain results. Victim blaming in certain countries discourages women from reporting violence against them, particularly sexual violence, suggesting that figures may be higher than is formally reported. The WHO (2021) reported that, of the 3.9 billion women in the world, 755 million accounting for 20% of the female population, have experienced or been subjected to intimate partner violence at least once since the age of 15. The highest prevalence of violence against women was documented in Oceania; followed by regions of Asia and Sub-Saharan Africa, with the lowest rates in Europe, followed by Australia, New Zealand, and Southeast Asia. Despite this low rate, the prevalence of women aged 15-49 in this region who have ever experienced any form of intimate partner violence amounted to 21% (WHO, 2021). Internationally, an increase in the reporting of domestic violence was seen during the Covid 19 pandemic (WHO, 2021). On a national scale, in Ireland, this increase was registered by Women's Aid who reported seeing a 43% increase in contacts made to their organisation in comparison with the previous year (Women's Aid, 2020). While the Dublin Rape Crisis Centre saw a 5% decrease in the number of contacts to their organisation, the uptake of appointments offered was significantly higher than previous years (Dublin Rape Crisis Centre, 2020).

In Europe women make up 25% of individuals with a substance use issue, and 20% of those seeking and entering treatment (Arpa, 2017). Alongside this, women with substance use issues are more likely to experience stigma, have fewer social supports and have suffered violence, including, and not limited to physical, sexual, emotional, or coercive control, and are less likely to receive treatment for their substance use (Arpa, 2017). There are several reasons why women are less likely to enter treatment for their addiction, including and not limited to shame, stigma, fear of losing parental custody, and, for those experiencing domestic abuse alongside having a substance use issue, inability to seek treatment as a result of their partners' control (The Women's Health Council, 2007). In Ireland, though there are several organisations that assist women with domestic violence and substance use separately, there is a limited number of resources and services that support women who are experiencing both issues simultaneously. In the UK, the Stella Project and Toolkit were launched to support women affected by the dual issues of domestic abuse and substance use, while concurrently guiding service providers in how best to assist these women (AVA, 2007). Despite there being several studies on domestic violence, there is limited research on women who have a substance use issue alongside experiencing domestic violence. Additionally, there is a deficient amount of research determining substance use and domestic violence in LGBTQI relationships (Rivera et al., 2015). It is clear that research to determine the prevalence of and explore the dual issues of women experiencing domestic violence and substance use, is urgently needed.

1.1 Aim and Objectives

On receiving funding from Rethink Ireland, SAOL launched the DAVINA project which intends to bridge the gap between domestic violence and addiction services. SAOL identified that many women who accessed their services have also experienced domestic violence. As a result, this study was commissioned to explore the prevalence and co-occurrence of domestic violence among women who use substances.

Using pre-existing international literature, the aim of this study was to identify and describe the occurrence of domestic violence within the population of women who use substances and to estimate, for the first time, the hidden prevalence of this challenge in Ireland.

The key objectives of this study were to:

- To identify and describe the experience of domestic violence and substance use among women

- To explore women's access to services
- To provide the first estimate of the prevalence of women in Ireland who use substances and have experienced domestic violence
- To identify the gaps in the research and establish where there is greatest need for further research

2.0 Methodological Approach

This section provides a detailed description of the methodological approach used for the rapid literature review and the hidden estimates of prevalence.

2.1 Rapid Review Methodology

A rapid literature review was deemed appropriate as it uses the well-respected systematic review methodology and adheres to the Preferred Reporting Items for SysteMAtic reviews checklist (PRISMA). Rapid reviews comply with systematic review processes, but they are simplified in order to produce the information in a shorter time span (Tricco et al., 2015). While there is currently no universally accepted definition of a rapid review in the literature (Haby et al., 2016), its purpose is to condense the methodology of a systematic review to ascertain the literature and evidence in a timely fashion (Schofield et al., 2021). See appendix 1 for the process and protocol used for the current rapid review. The library databases of PubMed, Academic Search Complete, EMBASE, CINAHL and PsycInfo were used to identify relevant literature for this review (see appendix 2 for search terms). All articles were imported into EndNote 20 and exported to COVIDENCE for screening procedures.

The search terms and eligibility criteria focused on the four concepts of 'Women', 'Domestic Violence', 'Addiction' and 'Access to Services'. With regards to the screening process of the literature, this was conducted by three reviewers. Reviewer 1 conducted the Title and Abstract Screening; both reviewers one and two completed the full-text screening. Finally, conflicts were resolved by a third reviewer. The PRISMA Flow Chart (Appendix 3) outlines how many articles were screened, read by full text, and finally, the definitive number used in the rapid review.

2.1.1 Inclusion criteria for articles were:

- Dual issues of substance use and domestic violence experienced by women
- Best practices and outcomes for women who have issues with substance use and also experience domestic violence.

2.1.2 Exclusion criteria for articles were:

- Articles only reporting on domestic violence
- Articles only focusing on substance use
- Articles reporting on the perpetrator's substance use and not the woman's

2.1.3 The process for deciding which articles to include

The researchers conducted a title and abstract screening of articles to determine the eligibility of the articles for inclusion in the review. Title and abstract screening were guided by the Population, Exposure, Outcome, Study Type (PEOS) framework and was finalised in consultation with the research team and the DAVINA coordinator. For this review the specific PEOS were:

- **Population:** Women, aged 18 or over, who use substances
- **Exposure:** Experienced domestic violence
- **Outcomes:**
    - ***Primary****: Dual issues of substance use and domestic violence experienced by women*
    - ***Secondary****: Best practices for women who have issues with substance use and also experience domestic violence.*
- **Study Type:** Qualitative, quantitative, and mixed-methods study designs

Further eligibility criteria ensured that the content of the included studies was relevant to the research questions. All attempts were made to obtain full texts of selected articles, by searching the web, engaging with the librarian collaborator, or contacting the author if necessary. The latter two steps were not required due to the considerable collection and resources of the library at Trinity College Dublin which enhanced this process. The selection process followed the recommendations in the PRISMA checklist and has been mapped using the PRISMA flow diagram (see appendix 3).

2.1.4 The data recording process

A data charting form was used to electronically capture relevant information from each included study. The key data points which were recorded are presented below:

- Author(s)
- Year of publication
- Origin/country of origin (where the study was published or conducted)
- Aims/purpose
- Study population and sample size
- Study design
- Methodology/methods
- Main findings on:
    - dual issues of substance use and domestic violence experienced by women

- best practices for women who have issues with substance use and also experience domestic violence

In addition, key findings that related to the research questions and relevant to the DAVINA project and SAOL team included:

- Barriers and enablers to providing care to this cohort of women
- Appropriate interventions and care pathways that are currently being implemented
- Facilitating access to services
- Effective engagement within and between services and women who use substances and experience domestic violence
- Relevant information and evidence on existing services to planning and provision of a new service.

It was imperative that validated instruments used to record and measure the reliability and validity of the included studies were identified. Key points recommended by Joanna Briggs (JBI) Reviewer's Manual include the demographic, social, economic and health, wellbeing, and justice related outcomes for participants (Peters et al., 2020). Additional data points are based upon the practical experience of Prof Comiskey and her team in conducting evidence reviews. Once the validity and reliability of the key texts were measured and agreed upon by the team, a narrative synthesis approach was taken to summarise the data. A narrative synthesis involves amalgamating findings from multiple studies using description and narration to explain the research (Popay et al., 2006). This was deemed suitable for the rapid review approach taken for this project.

2.1.5 Assessing the quality and methodological rigour of the articles

To assess the quality and methodological rigour of articles, the team used the Joanna Briggs Institute's (JBI) critical appraisal tools which can assist in assessing the trustworthiness, relevance, and results of published papers (Peters et al., 2020). A copy of the scale is provided in Appendix 4. Each study was independently critically appraised, and quality assessed by two individual members of the research team. It is also important to note the School of Nursing and Midwifery within Trinity College Dublin is a recognised Johanna Briggs accredited School and is known for its expertise in systematic and other reviews.

2.2 Prevalence Estimation Methodology

As case finding, retrospective record review, and counting are not possible for hidden phenomena, indirect statistical approaches for estimating prevalence have been developed. One such method is the benchmark multiplier method which is recommended by the European Monitoring Centre for Drugs and Drug Addiction for the estimation of hidden phenomena (EMCDDA, 2004). The method was included in the first estimates of the hidden prevalence of heroin use in Dublin in 1996 (Comiskey, 2001, Comiskey and Barry, 2001). The method has been applied recently in Ireland to estimate the unknown number of children with parents who use drugs (Galligan and Comiskey, 2019) and to estimate the hidden number of asymptomatic COVID-19 cases in the early stage of the epidemic (Comiskey et al., 2021).

In the context of drug use, the total population of people who use drugs, given by T is unknown (partly hidden population). Given a sample of size B of the population in question (benchmark) and the probability, c, for someone of this unknown population to be member of the sample, the total population T can be estimated using the formula:

$$T = B / c$$

Where B is some of the number of identified people who use drugs (sample or benchmark) and c is a parameter giving the probability of being a person who uses drugs (unknown target population) to be a member of the identified sample B. In one application B may be the number of people who use drugs and are known to be in treatment and c may be the proportion of people who are in treatment. For example, if we have 10,000 people known to be in treatment and if we know that half (50% or 0.50) of the people who use drugs are in treatment then the true number of people who use drugs can be estimated to be T = 10,000 / 0.50 = 20,000.

In the current study, T is the total number or prevalence of women who experience domestic violence and use substances, B is the benchmark of the known number of women who uses substances as derived from a general population survey on substance use in the time period under study and the multiplier, c, is the rate of domestic violence experienced by women who use substances. While this rate may be unknown among the population of women who use substances in Ireland it is known for the general population of all women and this rate can be used as a first and likely a minimum estimate.

3.0 Rapid Review Findings

A total of 4,136 articles were retrieved from the database searches of which 990 duplicates were removed, resulting in 3,146 articles for title and abstract screening. Following the title and abstract screening, 2,383 articles were removed. The full text of the remaining articles was further assessed, of which 14 articles were deemed eligible for inclusion (see appendix 3 for a detailed breakdown). The findings from the 14 eligible studies are provided in the narrative synthesis section below.

3.1 Narrative synthesis of findings

In total five key topics were identified, and these were:

1. mental health and trauma,
2. infectious disease and reproductive health,
3. motherhood and associated trauma,
4. barriers and enablers to accessing services, and
5. integration of services.

A table is provided which summarises all studies included in the rapid review, and a discussion of the key topics are presented.

Table 1: A summary of the eligible studies

Author	Title	Year	Country	Population (n)	Study Design
Bender, Annah K	Health care experiences of rural women experiencing intimate partner violence and substance abuse	2016	United States of America	27 providers and clients	Qualitative
Beydoun, H. A et al	Relationship of Physical Intimate Partner Violence with Mental Health Diagnoses in the Nationwide Emergency Department Sample	2017	United States of America	81,386,155Weighted Discharges	Cross sectional study
Edmond, T; et al.	Use of mental health services by survivors of intimate partner violence	2013	United States of America	50 women	Qualitative
Bernstein, M.; et al.	Intimate partner violence experienced by HIV-infected pregnant women in South Africa: a cross-sectional study	2016	South Africa	623 consecutive HIV-infected pregnant women initiating lifelong antiretroviral therapy	Cross sectional study
Bennett, L. W. et al	The effects of violence acuity and door to service	2010	United States of America	128 women	Longitudinal
Sciff M., et al.	Childhood sexual abuse, post-traumatic stress disorder, and use of heroin among female clients in Israeli methadone maintenance treatment programs	2010	Israel	104 female clients from 4 methadone clinics	Cross sectional
Engstrom, M. et al.	Childhood sexual abuse characteristics, intimate partner violence exposure, and psychological distress among women in methadone treatment	2012	United States of America	416 women	Cross sectional
Stone, R. et al.	"He Would Take My Shoes and All the Baby's Warm Winter Gear so We Couldn't Leave": Barriers to Safety and Recovery Experienced by a Sample of Vermont Women with Partner Violence and Opioid Use Disorder Experiences	2021	United States of America	33 women who experienced both intimate partner violence and opioid use	Qualitative
Fedele, K. M. et al.	The impact of comorbid diagnoses on the course of posttraumatic stress disorder symptoms in residents of battered women's shelters	2018	United States of America	147 residents of battered women's shelters	Longitudinal
Fallot, R D; et al.	The Trauma Recovery and Empowerment Model: A Quasi-Experimental Effectiveness Study	2011	United States of America	251 women with histories of physical/sexual abuse, mental illnesses and substance use	Quasi-Experimental
Sutherlan d, A. et al	Abuse experiences, substance use, and reproductive health in women seeking care at an emergency department	2013	United States of America	145 adult women were recruited from an Emergency Department	Cross-sectional
Tirado-Muñoz et al	Psychiatric comorbidity and intimate partner violence among women who inject drugs in Europe: a cross-sectional study	2018	Austria, Catalonia, Italy, Poland, and Scotland	226 women aged 18 or above who used substances in the previous 6 months	Cross-sectional
Torchalla, I. et al.	"Like a lot happened with my whole childhood": violence, trauma, and addiction in pregnant and postpartum women from Vancouver's Downtown Eastside	2015	Canada	27 women accessing harm reduction services for pregnant and postpartum women	Qualitative
Schäfer, I. et al.	Are experiences of sexual violence related to special needs in patients with substance use disorders? A study in opioid-dependent patients	2014	Germany	3,531 opioid dependent patients	Cross Sectional

3.1.1 Mental health and trauma

Mental health and trauma were identified as a key topic from the review. Due to the lack of services for women who experience domestic violence, women attempting to cope with, or flee from, an abusive relationship had little or no formal support to address the issues of Post-Traumatic Stress Disorder (PTSD), depression, or their own substance use attendant with their experiences of victimisation (Bender, 2016). Edmond et al. (2013) reported that women with PTSD or depression used a significantly larger number of mental health services than the women without either condition. More than half of the women had PTSD, clinical depression, or both, and yet most of those women had not received any mental health treatment to alleviate their distress. The study by Bernstein and colleagues found that 47% of women reported levels of alcohol use during the past 12 months consistent with hazardous drinking, and 3 women reported illicit drug use; women who reported intimate partner violence in the past year were more likely to use illicit drugs and to score above the threshold for hazardous alcohol use, psychological distress, and depression (2016). Physical intimate partner violence was also positively associated with intentional self-harm, suicide, intentional self-inflicted injury, anxiety, and drug related and mood disorders (Beydoun et al., 2017). Fedele et al. (2018) found that substance use disorder is associated with a significantly worse course of domestic violence related PTSD symptoms in survivors who seek shelter. More specifically, survivors with current substance use disorder demonstrated less improvement in PTSD symptoms over the six months after they left shelter as compared to women without substance use disorder. There is a complex interplay between victimisation, drug use, and psychological distress among women in substance use treatment and the necessity of treatment approaches that can effectively address these co-occurring concerns (Engstrom et al., 2012, Tirado-Munoz et al., 2018).

There is a growing body of research on trauma among people who use substances, and this is supported by the early study of Schiff et al. (2010). The findings suggest that people who use substances have suffered multiple traumas throughout their lives and are prone to re-victimization as adults. Although substance-dependent female clients suffered multiple traumatic events including domestic violence, it is childhood sexual abuse that was found to have the most devastating effects including psychosocial and interpersonal problems such as low self-esteem, isolation, inability to trust, sexual revictimization, risky sexual behaviour. It was also reported that PTSD among those females who experienced childhood sexual abuse is associated with more frequent use of heroin at a 1-year follow-up. In this study, all the women were victims of childhood sexual abuse, and many also endured other traumatic events. According to Sutherland and colleagues (2013), 53.3% of women who experienced childhood sexual abuse were more likely to report alcohol misuse in the past year compared with women who did not experience childhood sexual abuse (40.7%). While 34% of the

women who experienced childhood sexual abuse reported experiencing physical violence in the past year. Yet those who experienced PTSD symptoms were more likely to be frequent users of heroin than those who did not experience PTSD symptoms, after controlling for all other traumatic events they have experienced (Schiff et al., 2010). Torchalla and colleagues found that complex patterns exist between drug use and trauma among women seeking harm reduction services where women have experienced multiple, and often severe, early childhood adversities in the form of both single traumatic events and chronic stressors; the distress resulting from these adversities led the women to self-medicate their distress. Once regular substance use was established, they entered a vicious cycle of engaging in high-risk behaviours and situations to secure drug supply, resulting in more trauma exposure and a lifestyle that was characterised by gendered risks, ongoing adversities, and violence. All these conditions mutually intensified and maintained each other and interfered with natural, healthy resolution of trauma, PTSD symptoms and substance use (Torchalla et al., 2015).

3.1.2 Infectious diseases and reproductive health

Three studies discussed the link between domestic violence, substance use, pregnancy and infectious disease. Bernstein et al. (2016) found that not disclosing pregnancy or not agreeing on the pregnancy was associated with experiencing intimate partner violence. It was also found that approximately 40% of the women in this study disclosed their HIV status to their partner. Despite this, no differences were observed in intimate partner violence for women who had a known diagnosis of HIV in comparison to women who received a diagnosis in the current pregnancy. While nearly 60% of the women with HIV did not disclose their diagnosis to their partner, the authors concluded that a HIV diagnosis is not a specific relationship stressor. It was also found that women who experienced childhood sexual abuse had statistically significant higher number of lifetime sex partners, were younger when they first had intercourse and experienced more pain during sexual intercourse. In addition, women who experienced abuse were more likely to have been treated for gonorrhoea, trichomoniasis, and bacterial vaginosis. Tirado-Muñoz et al. (2018) also found that there was an association between sharing needles and syringes and lifetime psychiatric comorbidity.

3.1.3 Motherhood and associated trauma

One of the key topics that was identified in the review was motherhood. The study by Schiff and colleagues (2010), found that motherhood was a protective factor for refraining from illicit drug use because of potential loss of child custody. Some of the female clients with PTSD in this study were mothers who raised their minor children at home. Bender (2016) investigated the healthcare

experiences of rural women experiencing intimate partner violence and substance abuse and they interviewed both women and service providers. Interestingly, the result from the service providers' perspective suggests that women who use substances were not reticent to disclose abuse of any kind out of fear that the authorities or child welfare system would get involved, while the women in study did not report having the same experience. In fact, the women who were using drugs described their healthcare encounters negatively. One participant who was admitted to hospital due to injuries as a result of intimate partner violence was released without anyone at the hospital talking to her about intimate partner violence or providing information about the nearby women's shelter (Bender, 2016).

Schafer et. al. (2014) found that women who experienced domestic violence were more likely to have underaged children and to have more than one child. Together with the fact that the children of women who experience domestic violence were much less likely to live with their mothers (34% vs. 60%), it suggests that child-welfare is another important issue associated with a history of sexual violence among female patients with opioid dependence (Schafer et al., 2014). Torchalla and colleagues (2015) found that the women in their study experienced distress over the possibility of their children being apprehended by the child welfare system. The mothers' perspective on the issue was that the process was unfair and wrong. The apprehension of their children may cause additional trauma in adulthood for these women. The women also discussed their concern around generational trauma and how they feared that they would pass on the trauma from one generation to the next. This suggests that the women want to address their trauma, however, they also expressed hesitancy towards seeking trauma specific support (Torchalla et al., 2015). Torchalla et. al. suggests that trauma specific support must be integrated into harm reduction services. The study also recommends that healthcare providers and policy makers should provide comprehensive and integrated treatment that addresses both substance use and trauma within the same service in order to meet the needs and requirements of the women who use substances and experience domestic violence (Torchalla et al., 2015). More recently the study by Stone et al. (2021) also confirmed the need for integrated treatment. The participants in the study identified the need for trauma-informed care and medium-term housing options that are affordable for women who use substances and experience domestic violence in order to live with their children while transitioning out of residential care facilities or from abusive relationships. therefore, it is important that integrated services are available to accommodate the needs of women with dependent children (Stone et al., 2021).

3.1.4. Barriers and enablers of accessing services

A number of studies have highlighted various barriers to accessing services for women who use substances and experience domestic violence. Bender (2016) found the attitudes and beliefs of healthcare providers towards this cohort of women resulted in unpleasant clinic and hospital appointments and many of the women felt they did not get the help they needed. However, Beydoun et al. (2017) found that healthcare providers, particularly those working in emergency department settings, can serve as an important point of contact for women who experience physical intimate partner violence. Although physical intimate partner violence is common among patients presenting to the emergency department, screening and identification of signs of domestic violence by healthcare workers was infrequent. Increased awareness of the connection between domestic violence and mental health conditions may lead to better referrals or co-ordination of care. Edmond et al. (2013) noted that practitioners working with women who experienced domestic violence should assess for PTSD and depression and be prepared to either treat each condition or provide effective mental health referrals. The high rates of PTSD, depression, substance use, and co-occurring disorders among women who experienced domestic violence strongly suggests that the service community needs to recognise the importance of including mental health care as part of treatment protocols within their agency programs (Edmond et al., 2013).

According to Bender (2016), practitioners in the US had negative attitudes towards the women who did not have health insurance. Two thirds of the women in this study in the US did not have health insurance, meaning their ability to access mental health or substance use treatment was out of financial reach and, in the most extreme case, alcohol abuse coupled with a lack of health insurance prevented one participant from visiting a doctor for 22 years. Increasing mental health services and expanding healthcare coverage to ensure access to mental and behavioural treatment is sorely needed. Within healthcare education and clinical settings, adopting specific protocols for the assessment of substance use and trauma - along with training to understand the dynamics of both, and their frequent co-occurrence - could improve healthcare providers identification of and response to these patients (Bender, 2016).

In relation to enablers of access to services, the study by Bennett and O'Brien (2010) conducted among women who use substances, found that once-only screening for intimate partner violence by staff at intake was found to be inadequate to capture the long-term effects of domestic violence. However, they found that healthcare professionals were more likely to improve services for women if they adopted a broader view of the effects of domestic violence. That is, to provide ongoing assessment and intervention to address domestic violence as part of their regular treatment (Bennett and O'Brien, 2010).

Another possible enabler identified by Stone et al. (2021) was changing social norms through media campaigns that encourage acceptance of women who use substances and experience domestic violence. Reflecting on the stigma and secrecy surrounding both domestic violence and substance use, many participants called for increased public education and awareness raising, starting with children as part of their school education to reduce this stigma and secrecy around domestic violence, and improve outreach by service providers to their communities.

3.1.5 Integration of services

A number of studies called for the integration of services to assist women experiencing domestic violence and substance use disorder. Fallot et al. (2011) reported that, given the prevalence and powerful impact of interpersonal violence in the lives of women and the special challenges faced by women with co-occurring mental health and substance use disorders, there is a need for effective interventions that are engaging, that can be implemented with fidelity in common mental health settings, and that facilitate recovery for the women. The findings from Tirado-Muñoz et al. (2018) highlighted the need to integrate screening instruments for psychiatric comorbidity in drug treatment and harm reduction services, especially for women, to increase detection, reduce the severity of psychiatric comorbidity, and improve treatment outcomes for both disorders. To achieve that, screening instruments should be implemented routinely. Similarly, Torchalla et al. (2015) noted that innovative models of care are needed on the micro-level which are aimed at increasing the women's well-being and resilience, supporting them in their capacity as caregivers, improving their economic and social position and, ultimately, helping them to retain custody of their children. It is also necessary to shift the focus from the individual to include environmental, social, economic and policy factors on multiple levels, and from issues of drug use and reduction of drug-related harms to include issues of gendered vulnerabilities and human rights.

Engstrom et al. (2012) reported that integrated treatment approaches may lead to positive outcomes for women, including improvements related to substance use, mental health and violence exposure. Screening, assessment and inter- or intra-agency referral for assistance related to victimisation, PTSD and other psychological distress should be routinely available and systematically evaluated in substance use treatment programs. Additionally, routine assessment of financial circumstances, including financial dependence on one's partner and poverty, should be included to identify potential risk factors of domestic violence and to address women's basic needs. The findings highlight the complex intersections between victimisation, drug use, and psychological concerns and the need for routine availability and evaluation of multifaceted interventions for women in substance use treatment.

Similarly, Sutherland et al. (2013) suggest that the emergency department may be the first entry point into the health care system for women who are survivors of childhood sexual abuse and are either at risk of or are experiencing health consequences associated with childhood sexual abuse, such as sexually transmitted infections, alcohol and substance use. Therefore, assessment of a woman's lifetime violence history, including childhood sexual abuse, enables providers to screen for risk and address potential psychosocial and physical consequences. When asking about a history of domestic violence by an intimate partner and current safety, nurses can also inquire about abuse during childhood. Incorporating childhood trauma into violence screening will establish opportunities for patient disclosure of sensitive information. Obtaining this information will also elicit a more thorough history that can be used when developing a comprehensive plan of care. Increased awareness and screening of lifetime violence, including childhood sexual abuse, is a necessary first step in identifying women who may need ongoing and long-term follow up care to address abuse issues that are contributing to risky behaviours and negative health outcomes.

Fedele et al. (2018) found that the supportive and safe environment of shelter (e.g., case management, support services, companionship with other survivors of intimate partner violence in shelter, monitored environment) may help to decrease PTSD symptoms, in particular with women with substance use disorder, as they may have less access, means, or desire to use substances while in shelter. The Fedele et al. (2018) study highlights the need to go beyond standard shelter services to address co-occurring substance use disorder-PTSD more effectively in survivors of intimate partner violence. Dual substance use disorder-PTSD treatment may help to prevent relapse and increase the longevity of symptom reduction.

3.2 Summary of Rapid Review

To summarise, 14 studies were deemed eligible for inclusion in the rapid review. A narrative synthesis was conducted, and five key topics were identified from the review. The topics were mental health and trauma, infectious disease and reproductive health, motherhood and associated trauma, barriers and enablers of accessing services, and integration of services.

In relation to mental health and trauma, PTSD, depression, intentional self-harm, suicide, intentional self-inflicted injury, anxiety, and substance use disorders (Bernstein et al., 2016, Beydoun et al., 2017), were some of the factors associated with domestic violence by an intimate partner. Hazardous alcohol drinking and psychological distress was also found to be prevalent among women who experience domestic violence (Bernstein et al., 2016). Schiff et al. (2010) found that women who use substances suffered from multiple traumas throughout their lifetime and as a result they

were more likely to experience re-victimisation as an adult. In addition, it was reported that not only did childhood sexual abuse led to sexual re-victimisation, but it also led to psychosocial and interpersonal problems such as low self-esteem, isolation, inability to trust, risky sexual behaviour, and PTSD (Schiff et al., 2010).

Research showed that there is a link between domestic violence, substance use, pregnancy and infectious disease. In addition, women who have experienced abuse were more likely to have been treated for gonorrhea, trichomoniasis, and bacterial vaginosis (Sutherland et al., 2013). Lastly, Tirado-Muñoz et al. (2018) also found that there was an association between sharing needles and syringes and lifetime psychiatric comorbidity.

Trauma-related issues were discussed again in the context of motherhood. The women in the Torchalla et al. study (2015) discussed their concern around generational trauma and how they feared that they would pass on the trauma from one generation to the next. The women wanted to address their trauma, however, they also expressed hesitancy towards seeking trauma specific support. The study suggested that trauma specific support must be integrated into harm reduction services (Torchalla et al., 2015).

The attitudes and beliefs of healthcare providers was one of the main barriers for women accessing services (Bender, 2016). It was also reported that emergency departments often failed to screen for signs of domestic violence and as a result there was a failure to refer women to appropriate services (Beydoun et al., 2017), such as domestic violence services as well as mental health and substance use services (Edmond et al., 2013). In the US, the lack of health insurance was also a key barrier to accessing appropriate services as many of the services were out of financial reach (Bender, 2016).

Healthcare professionals who provided ongoing assessments and interventions to address domestic violence as part of regular treatment, were more likely to improve their services for women who experienced domestic violence by an intimate partner (Bennett and O'Brien, 2010). Changing social norms through media campaigns that encourage acceptance of women who use substances and experience domestic violence was found to be an important enabler for accessing services along with increased public education and awareness raising among school-aged children (Stone et al., 2021).

Finally, numerous studies called for more integration of services for women experiencing domestic violence and substance use disorder. Tirado-Muñoz et al. (2018) highlighted the need for services to integrate screening processes for psychiatric comorbidity in drug treatment and harm reduction services. Torchalla et al. (2015) noted that innovative models of care are needed on the micro-level aimed at increasing the women's well-being and resilience, supporting them in their capacity as caregivers, improving their economic and social position and, ultimately, helping them to retain custody of their children. Engstrom et al. (2012) found that integrated treatment approaches can lead to positive outcomes for women, including improvements related to substance use, mental health, and violence exposure.

4.0 Hidden Prevalence Findings

Data was extracted from multiple sources to construct an overall picture of the incidence of domestic violence among women who use substances. The study followed a top-down process. Firstly, figures on the number of women in Ireland were obtained from the Central Statistics Office (Central Statistics Office, 2021) database. Although the CSO only collects census data every 5 years, the organisation publishes population estimates by age group and gender for the years between each census, therefore data for 2020 was available.

An estimate of the number of women in Ireland with experience of drug and alcohol use are published cyclically by the Health Research Board (HRB). The 2019–20 Irish National Drug and Alcohol Survey suggested that alcohol use disorder "was more common among male than female drinkers, (24.8% versus 15.1%)" (Mongan et al., 2021),while the prevalence of illicit drug use was estimated at 4.7% of the female population over 15 (Mongan et al., 2021). The proportions published in this report were used in conjunction with the 2020 census data to estimate the number of women in Ireland who used either illicit drugs or have an alcohol use disorder. According to O'Neill et al. (2020) 23.1% of people in treatment for an alcohol use disorder also reported polydrug use, using at least one other drug, in the prior year. However, the data did not include a gender breakdown, therefore an estimate of 23.1% was applied to the number of women who used illicit drugs to adjust for the possibility of double counting of the overall prevalence of substance use, either alcohol or drug use, among women.

A comprehensive report on the prevalence of domestic violence in Ireland was conducted by National Crime Council (NCC), in association with the Economic and Social Research Institute (ESRI) in 2005 among a representative sample of over 3,000 adults, (Women, n = 1542), (Watson and Parsons, 2005). The report estimated that approximately 15% of women and 6% of men have experienced "severely abusive behaviour of a physical, sexual or emotional nature from an intimate partner at some time in their lives" (Watson and Parsons, 2005), representing 213,000 women and 88,000 men. While 3% of those women experienced domestic abuse in the year prior to the ESRI survey. As of the 18th of November 2021, the World Health Organisation also calculate the rate of domestic violence in Ireland in the preceding year to be at 3% in their Global Database on violence against women report, the same national estimate as the 2005 ESRI report (WHO, 2021). The WHO

data is based on a European wide survey conducted by the Fundamental Rights Agency (European Union Agency For Fundamental Rights, 2015), of a sample of approximately 1500 women in each of the 28 member states of the European Union. These data suggest that the rate of domestic violence in Ireland has remained relatively static over the years, between 2005 and 2012, when the data was collected. A further source of data on the incidence of domestic violence is the An Garda Siochana annual reports (An Garda Siochana, 2020). Within the reports the force provides information on the number of calls they receive for domestic disputes. The data collated for the years 2016 to 2020 shows the level of reported domestic incidents has increased by 44% over the five years. However, a consistent theme throughout the Garda annual reports published between 2016 and 2020 suggests that the force believes the actual number of domestic incidents is much higher than what is reported to the Garda. Given the lack of more recent research, the ESRI and WHO prior year estimate of 3% was used as a point prevalence rate of domestic violence in Ireland for 2020 and provided an estimate of the multiplier, *c*, within the benchmark multiplier method.

Finally, to calculate the number of women in Ireland with experience of substance use and domestic violence in 2020 for the previous year, the multiplier of 3% was applied to the benchmark *b*, the number of women who used substances in the prior year, (see Fig 2). As both the National Crime Council/ESRI and the FRA reports provide an estimate for the general population of women who experience domestic violence, which could be viewed as low when applied to some segments of the population, a 95% confidence interval was calculated with both upper and lower multiplier estimates. A lifetime prevalence estimate defined as women over 15 who "have experienced severely abusive behaviour of a physical, sexual or emotional nature from a partner at some time in their lives" (Watson & Parsons, 2005, p. 24.) is also provided in Figure 3 below.

Discrepancies in how different organisations report their data presented a challenge. The CSO report population data by gender in age groups of 5 years, for example, age 15 to 19; 20 to 24: the HRB report data from 15 to 64, and from 15 years upwards, while the ESRI /FRA estimation for domestic violence at 3% was based on an age range 20 to 74. Therefore, the age range for population and drug use data was based on females aged 15 and older, and a point estimate for experiencing domestic violence within the last year of 3% was applied to the substance use data set with a 95% confidence interval. This interval was calculated using the sample size of 1542, reported by Watson and Parsons (2005).

The results are provided in Figure 2 and 3 below.

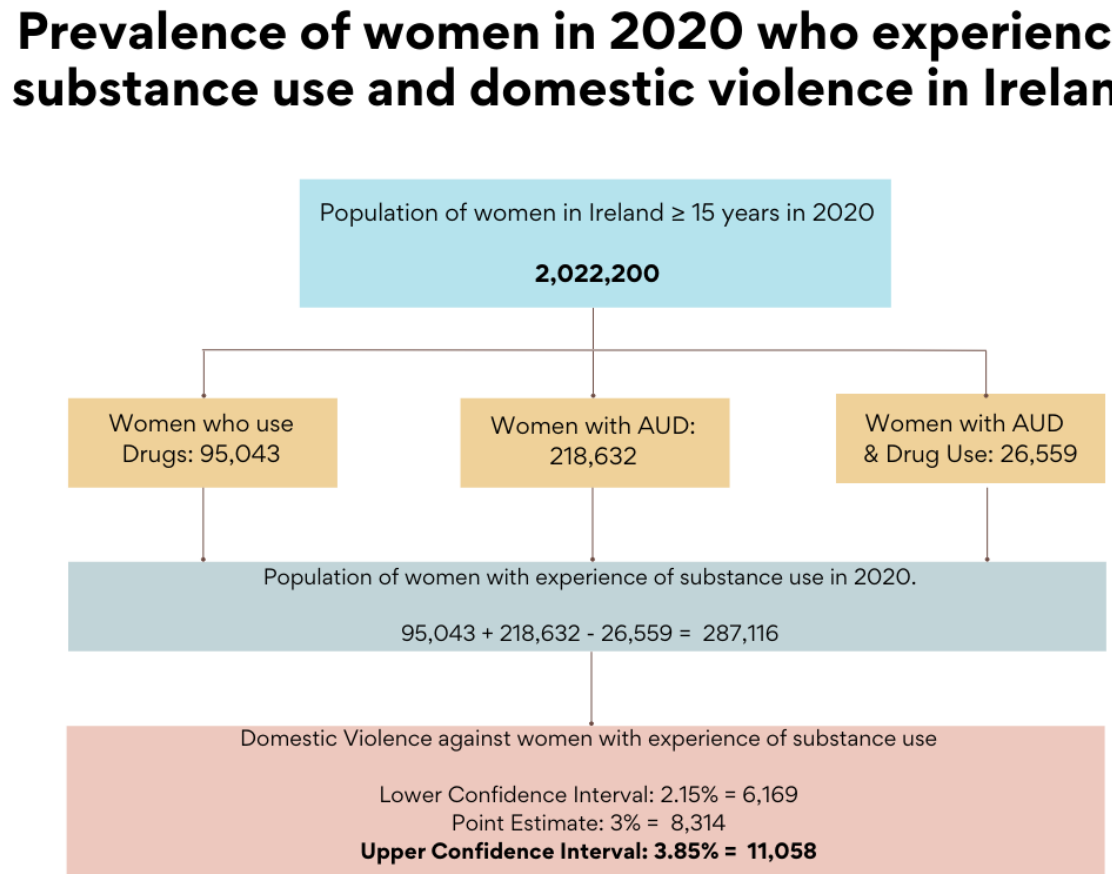

Figure 2: Prevalence of women in Ireland who experienced substance use and domestic violence within the last year in 2020

From figure 2 we can see that, based on the benchmark multiplier estimation method, a 95% confidence interval for the estimate of the prevalence ranged from 6,169 to 11,058. Given the limitation that the multiplier was derived from the general population, it is appropriate to assume that this multiplier was a serious underestimate. World Health Organisation research (WHO, 2021) has identified that women of lower socioeconomic status experience higher rates of domestic violence and international treatment outcome and other studies have shown that women who use drugs are at risk of lower socioeconomic status (Cox and Comiskey, 2009). Given these additional considerations the upper limit of the confidence interval is deemed a more appropriate yet still a highly conservative estimate.

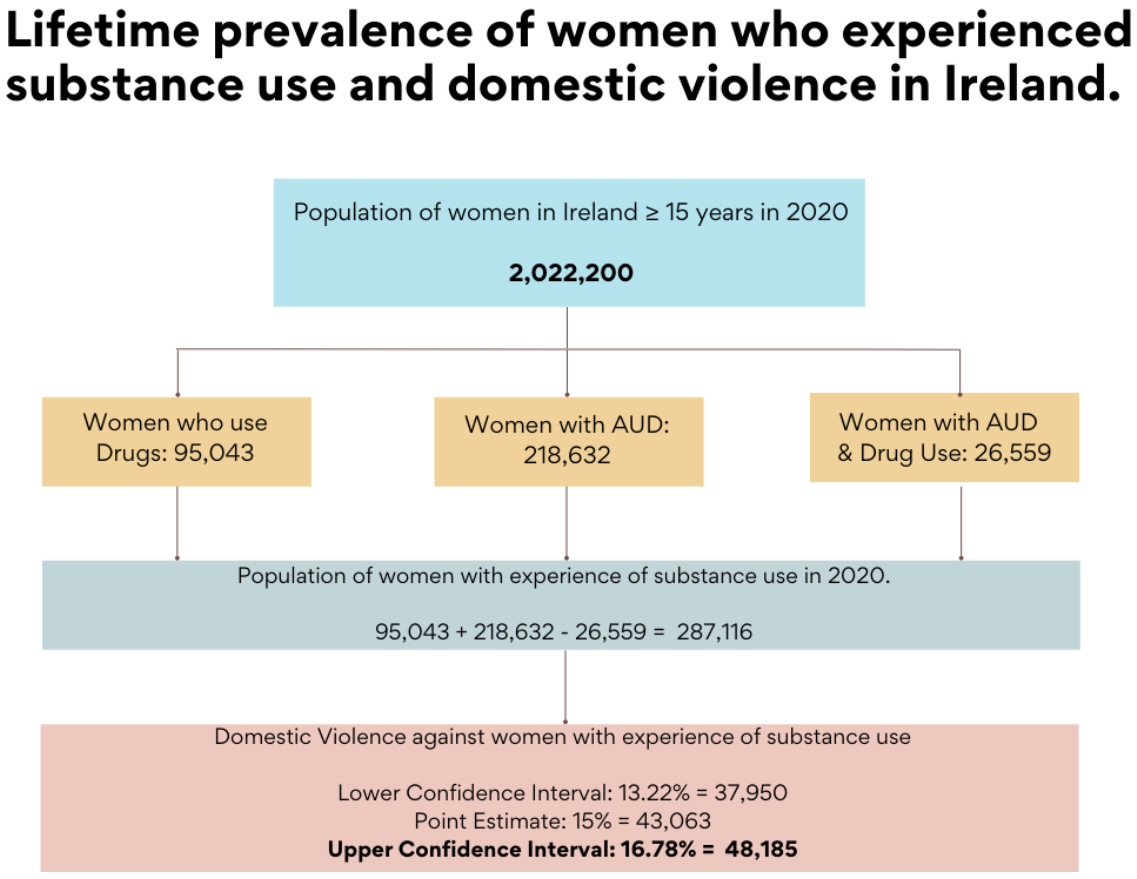

Figure 3: Lifetime prevalence of women in 2020 in Ireland who experienced substance use in 2020 and have ever experienced domestic violence

Unlike figure 2, figure 3 is based on lifetime prevalence of women in Ireland who experienced substance use in 2020 and domestic violence within their adult lifetimes. The benchmark multiplier estimation is based on a 15% point estimate, which was derived from the Watson and Parsons (2005). The lower and upper confidence intervals ranged from 37,950 to 48,185 women.

We conclude therefore that at least 11,000 women in 2020, aged over 15 living in Ireland, and who use substances have experienced domestic violence within the last year. However, based on the lifetime prevalence, the number of women experiencing substance use in 2020 and domestic violence during their lifetime could be significantly greater, as seen in figure 3 and is conservatively estimated to be at least 48,000 women.

5.0 Discussion

The aim of this study was to identify and describe, from the international literature, the occurrence of domestic violence experienced by women who use substances, and to estimate, within Ireland, for the first time, the hidden prevalence of this challenge. From the rapid review, the topics of mental health and trauma, infectious disease and reproductive health, motherhood and associated trauma, barriers and enablers of accessing services, and integration of services, were identified from the 14 articles that were eligible for inclusion. Overall, the narrative synthesis highlighted the importance of mental health and trauma among women who use substances and have experienced domestic violence, in particular the impact of PTSD, depression, suicidal ideation, self-harm, and anxiety (Bernstein et al., 2016, Beydoun et al., 2017). A pattern of re-victimisation among women who experienced childhood sexual abuse was also evident and strongly suggests that women who use substances, and have suffered multiple traumas, are more likely to experience domestic violence as an adult (Schiff et al., 2010). While childhood sexual abuse was reported by 104 women in this study, 66.3% of the women experienced non-sexual violence by a relative, alongside 53.8% of women experiencing violence by a non-family member. This highlighted that women suffering from multiple traumas as a result of domestic violence, whether it be in childhood or adulthood, are vulnerable to re-victimisation and substance use as adults. Furthermore, the study by Sutherland et al., recognised childhood sexual abuse as one of the most significant predictors of re-victimisation in later life. Much of the literature discusses the correlation between a history of trauma and a subsequent increased risk of substance use, often to manage the feelings of distress associated with these experiences. It was observed by the authors of one study that the women become trapped into a vicious cycle of substance use in order to cope with the trauma of physical and sexual abuse they experience by family members, strangers or both (Schiff et al., 2010). In another study, adolescents who had been subjected to childhood sexual abuse were 3 times more likely to consume a greater quantity of alcohol than those who did not have this experience. While other studies on mothers living in poverty show that histories of abuse were linked with drug use severity (Sutherland et al., 2013, Torchalla et al., 2015). Trauma, abuse and neglect are risk factors for both substance use disorder and re-victimisation in later life.

The review also highlighted the link between domestic violence, substance use, pregnancy and infectious disease. Sutherland et al. (2013) reported that women who have experienced abuse were more likely to have been treated for gonorrhoea, trichomoniasis, and bacterial vaginosis (Sutherland et al., 2013).

Trauma was discussed again in the context of motherhood and how the women feared that they would pass on the trauma from one generation to the next. The findings also discussed the fear and unfairness that the women felt with regards to possibly losing their children to welfare services which leads to additional trauma (Torchalla et al., 2015). The study specifically reported that women described the trauma of losing their child to welfare services as unfair and wrong and one even described it as *"losing him, was my biggest, downfall. Cause I was clean when I lost him. And, to lose a child after raising him for two years has absolutely destroyed me"* (Torchalla et al., 2015).

The findings from the review brought light to the negative attitudes and beliefs of healthcare providers towards women who use substances and who have experienced domestic violence. This was shown to be a significant barrier to accessing services for women (Bender, 2016). It was also found that there was a failure to refer women to appropriate services due to the inadequate screening for signs of domestic violence (Beydoun et al., 2017). Another barrier that was identified was the lack of health insurance among the women and, as a result, many of the services were out of financial reach (Bender, 2016).

The implementation of ongoing assessments and interventions specific to domestic violence as part of regular treatment were found to be an important factor for improved services for women who use substances (Bennett and O'Brien, 2010). While changing social norms through media campaigns that encourage acceptance of women who use substances and experience domestic violence was found to be an important enabler for accessing services along with increased public education and awareness raising among school-aged children (Stone et al., 2021).

Finally, numerous studies called for more integration of services for women experiencing domestic violence and substance use disorder. Tirado-Muñoz et al. (2018) highlighted the need for services to integrate screening processes for psychiatric comorbidity in drug treatment and harm reduction services. Engstrom et al. (2012) found that integrated treatment approaches can lead to positive outcomes for women, including improvements related to substance use, mental health and violence exposure.

Although all of the articles that met the criteria for this study address both domestic violence and substance use experienced by women, and the co-occurring nature of both issues, it is worthy to note that there is limited research that looks specifically at women who use substances and

experience domestic violence concurrently, and there are even fewer services which offer treatment for both domestic violence and substance use, despite the great need for such services.

6.0 Recommendations

Recommendations from both the qualitative findings within the literature, and the national quantitative findings are provided.

Drawing upon the international literature, while taking into consideration the limitations, recommendations are provided relating directly back to the findings on the personal needs of the women, as well as the wider needs in terms of access, implementation, and integration of services. Findings from the literature are also used to inform the recommendations on data capture and ongoing prevalence estimation which will have implications for both national and international services.

In terms of addressing mental health and trauma, the literature clearly highlighted poorer outcomes for women who experienced domestic violence in terms of treatment for their substance use, PTSD and ongoing victimisation and risky lifestyles. This was further compounded by either single or chronic past adverse childhood experiences. While it is now recognised that trauma informed harm reduction services are essential when working with people who use substances, this may hold even greater truth when discussing the needs of women who endure the dual challenges of domestic violence and substance abuse**. The need for additional, enhanced, and targeted trauma informed services cannot be underestimated. These will need to go above and beyond existing trauma informed approaches, and additional training and facilities may be required to achieve this.**

In terms of infectious diseases and reproductive health, the literature found that women who were sexually abused as children or suffered domestic violence, experienced increased sexual health challenges and increased risk of contracting infectious diseases and infections as they entered adulthood. This finding reemphasises the importance of monitoring current and past sexual wellbeing as an integrated part of harm reduction substance use services. **It is recommended that past adverse childhood or early sexual experiences, plus current sexual health, be an ongoing facet of monitoring and evaluation of client wellbeing in addiction services. This includes the emphasis on training, as required, in terms of ongoing treatment adherence for infectious diseases.**

The literature demonstrated that women who use substances and suffer domestic violence were more likely to be mothers, and to be mothers with young children. They endured the additional fear of the loss of their children, and they found that their experiences with the health and social care systems were unfair, with professionals often blind to the violence they have suffered. Women

feared for the future of themselves and their children and the risk of repeated intergenerational violence. Access to safe transitional housing was a primary need for this population Given these findings, **it is recommended that ongoing professional development in the signs and symptoms of domestic violence, as well as in offering empathetic, non-stigmatising care, be provided to front line health and social services.**

Furthermore, it is also recommended that informative, non-judgmental education should be provided in community settings including schools. The schools-based education should not only target teachers but also identify the needs of children perhaps within existing 'Healthy Schools' models and programs. This would add value to existing programs and be cost efficient in terms of resourcing. It is recommended that this option be explored with the Department of Education.

At the individual level of basic needs and in the interest of preventing intergenerational trauma, **it is recommended that increased transitional housing be specifically allocated for women with children, who use substances and whose homes are unsafe as a result of domestic violence or the threat of it.**

The literature identified the necessity for effective interventions that are engaging, that can be implemented uniformly across comparable mental health settings, and that facilitate recovery for the women. Models of care need to be both innovative and address an individual's needs. Such models should focus on increasing the resilience of and supporting women in their care. **At the individual level it is recommended that a review of evidence-based interventions targeting women be undertaken and a pilot intervention be evaluated for efficacy and fidelity of implementation in a range of settings**.

The literature also emphasised the necessity to shift the focus of responsibility from the individual to include environmental, social, economic and policy factors on multiple levels, and within issues of harm reduction to include issues of gendered vulnerabilities and human rights. **It is recommended that a policy review be undertaken to ensure that health, social, drug and other relevant policies, including strategies for children, are fit for purpose in terms of integrated services and the upholding of the human rights of women who use substances and endure violence in their homes.**

The literature highlighted the importance of adequate, systematic, and regular assessment for the screening of domestic violence, not just at initial assessment stages, but across the span and duration of service provision. The lack of relevant and specific data observed within the national prevalence estimation process also highlighted this gap in knowledge. **It is therefore recommended**

that an evidence review of appropriate screening instruments be completed and an evidence informed screening and assessment tool be chosen or developed and piloted in a range of practice settings to ensure it is fit for purpose.

To ensure that the voices of women who experience these issues are central to any development work it **is also recommended that any reviews or pilots be co-created with women and that qualitative work is conducted in parallel to the qualitative measurement, monitoring, and evaluation.**

To address the immediate gap in knowledge within the Irish data, **it is recommended that the initial and subsequent National Drug Treatment Reporting System and the European-wide Treatment Demand Indicator include summary questions on current or past domestic violence.**

Finally, given the scale of the prevalence estimate derived for Ireland, **it is recommended that a retrospective analysis or audit of national service data be conducted to improve on this initial estimate, and an immediate policy, co-created with women, children, and relevant services, be developed to address the comorbidity of substance use and domestic violence.**

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Appendix 1: Parameters used for the Rapid Review

Table 2: Parameters Applied to Rapid Review

Parameter	**Comments**
Limiting the number of questions	Yes
Limiting the scope of questions	Yes
Searching fewer databases	No
Limited use of grey literature	No
Restricting the types of studies included (e.g., English only)	Limit to previous 10 years (2010-present)
Relying on existing systematic reviews	Yes
Eliminating or limiting hand searching of reference lists and relevant journals	Scan Articles
Narrow period for article retrieval	Run 2 searches
Using non-iterative search strategy	Do not change strategy
Eliminating consultation with experts	Limiting to the team provided
Limiting full-text review	Do full text review
Limiting dual review for study selection, data extraction and/or quality assessment.	Need 2 reviewers
Limiting data extraction	Want interventions and dual models of care for domestic violence and substance use
Limiting risk of bias assessment or grading	No
Minimal evidence synthesis	No
Providing minimal conclusions or recommendations	No, conclusions and recommendations need to be detailed
Limiting external peer review	Johanna-Briggs Institute (JBI) Critical Appraisal tools will be used

Appendix 2: Search Terms and Database Results

Table 3: Key concepts for search strategy

Concept 1: Domestic Violence
Concept 2: Women
Concept 3: Addiction

Concept 4: Access to services

Table 4: PubMed Database Search Terms and Results

Database	Terms	Results	Totals
PubMed	S1: “Domestic Violence” [Mesh]	47265	
	S2: “Domestic Abuse” OR “Domestic Violence” OR “Intimate Partner Abuse” OR “Intimate Partner Violence” OR “abusive relationship” OR “Controlling relationship” OR “Emotional abuse” OR “Financial Abuse” OR “Coercive control” OR “Physical Abuse” OR “emotional abuse” OR “Isolation” OR “Intimidation” OR “Sexual Abuse” OR “family violence” OR "LGBTQ+ family violence" OR "PARENT abuse" OR "SIBLING abuse" OR "VICTIMS of domestic violence"	1270273	
	S4: "Battered Women"[Mesh]	2688	
	S5: “Woman” OR “Women” OR “Abused Wom*” OR “Married Wom*” OR “Battered Wom*” OR “Single Wom*” OR “Female” OR "Daughters" OR "Female Criminal Offenders" OR "Mothers" OR "Sisters" OR "Widows" OR "Wives" OR "Working Women"	9737842	
	S6: "Behavior, Addictive"[Mesh] OR "Alcoholism"[Mesh]	88640	
	S7: Addict OR Addicted OR Addict* OR Dependent OR Dependency OR Depend* OR “Substance Depend*” OR “Substance Use” OR “Substance Misuse” OR “Substance Abuse” OR “Alcoholism” OR “Alcohol-related disorders” OR “Addiction Medicine” OR “Opioid-Related Disorders” OR “Narcotic-Related Disorders” OR “Drug Addiction” OR "PSEUDOADDICTION" OR “Opiates” OR “Substance-related disorders” OR “Chemical Depend*” OR “Drug Addiction” OR “Drug Depend*” OR “Drug Habituation” OR “Alcohol Addiction” OR “Alcohol Dependence Syndrome” OR “Alcohol Depend*”	2741510	
	S8:"Health Services Accessibility"[Mesh]	120137	
	S9: ‘Access to Health Care’ OR ‘Access to Health Services’ OR ‘Care barrier’ OR ‘Direct Access’ OR ‘Health Service’ OR ‘Direct Access’ OR ‘Health Care Accessibility’ OR ‘Health Service Access’ OR ‘Health Service Accessibility’ OR ‘Health Services Access’ OR ‘Support Services’ Or ‘support services access’ OR ‘Healthcare inequalities’ OR ‘Healthcare Disparity’	2957660	
	S9: S1 OR S2	1295271	
	S10: S3 OR S4	9737842	
	S11: S5 OR S6	2741510	
	S12: S7 OR S8	2957660	
	S13: S9 AND S10 AND S11 AND S12	3694	

	2010-Present	2094	
	English Language	2008	2008

Table 5: PsycInfo: Database Search Terms and Results

PsycInfo	S1: MM “Domestic Violence”	10600	
	S2: “Domestic Abuse” OR “Domestic Violence” OR “Intimate Partner Abuse” OR “Intimate Partner Violence” OR “abusive relationship” OR “Controlling relationship” OR “Emotional abuse” OR “Financial Abuse” OR “Coercive control” OR “Physical Abuse” OR “emotional abuse” OR “Isolation” OR “Intimidation” OR “Sexual Abuse” OR “family violence” OR "LGBTQ+ family violence" OR "PARENT abuse" OR "SIBLING abuse" OR "VICTIMS of domestic violence"	103595	
	S3: MM “Human Females”	52099	
	S4: “Woman” OR “Women” OR “Abused Wom*” OR “Married Wom*” OR “Battered Wom*” OR “Single Wom*” OR “Female” OR "Battered Females" OR "Daughters" OR "Female Criminal Offenders" OR "Mothers" OR "Sisters" OR "Widows" OR "Wives" OR "Working Women"	1264309	
	S5: MM "Addiction" OR MM "Alcoholism"	35097	
	S6: Addict OR Addicted OR Addict* OR Dependent OR Dependency OR Depend* OR “Substance Depend*” OR “Substance Use” OR “Substance Misuse” OR “Substance Abuse” OR “Alcoholism” OR “Alcohol-related disorders” OR “Addiction Medicine” OR “Opioid-Related Disorders” OR “Narcotic-Related Disorders” OR “Drug Addiction” OR "PSEUDOADDICTION" OR “Opiates” OR “Substance-related disorders” OR “Chemical Depend*” OR “Drug Addiction” OR “Drug Depend*” OR “Drug Habituation” OR “Alcohol Addiction” OR “Alcohol Dependence Syndrome” OR “Alcohol Depend*”	559487	
	S7: DE “Integrated Services”	3543	
	S8: ‘Access to Health Care’ OR ‘Access to Health Services’ OR ‘Care barrier’ OR ‘Direct Access’ OR ‘Health Service’ OR ‘Direct Access’ OR ‘Health Care Accessibility’ OR ‘Health Service Access’ OR ‘Health Service Accessibility’ OR ‘Health Services Access’ OR ‘Support Services’ Or ‘support services access’ OR ‘Healthcare inequalities’ OR ‘Healthcare Disparity’	290037	
	S9: S1 OR S2	103595	
	S10: S3 OR S4	1264309	
	S11: S5 OR S6	559487	
	S12: S7 OR S8	291246	
	S13: S9 AND S10 AND S11 AND S12	838	
	2010-Present	431	

	English Language	421	421

Table 6: CINAHL Database Search Terms and Results

CINAHL	S1: (MH “Domestic Violence”)	9711	
	S2: “Domestic Abuse” OR “Domestic Violence” OR “Intimate Partner Abuse” OR “Intimate Partner Violence” OR “abusive relationship” OR “Controlling relationship” OR “Emotional abuse” OR “Financial Abuse” OR “Coercive control” OR “Physical Abuse” OR “emotional abuse” OR “Isolation” OR “Intimidation” OR “Sexual Abuse” OR “family violence” OR "LGBTQ+ family violence" OR "PARENT abuse" OR "SIBLING abuse" OR "VICTIMS of domestic violence"	73477	
	S3: (MH “Woman+”)	112	
	S4: “Woman” OR “Women” OR “Abused Wom*” OR “Married Wom*” OR “Battered Wom*” OR “Single Wom*” OR “Female” OR "Battered Females" OR "Daughters" OR "Female Criminal Offenders" OR "Mothers" OR "Sisters" OR "Widows" OR "Wives" OR "Working Women"	2265359	
	S5: (MM "Substance Dependence") OR (MM "Alcoholism”)	19704	
	S6: Addict OR Addicted OR Addict* OR Dependent OR Dependency OR Depend* OR “Substance Depend*” OR “Substance Use” OR “Substance Misuse” OR “Substance Abuse” OR “Alcoholism” OR “Alcohol-related disorders” OR “Addiction Medicine” OR “Opioid-Related Disorders” OR “Narcotic-Related Disorders” OR “Drug Addiction” OR "PSEUDOADDICTION" OR “Opiates” OR “Substance-related disorders” OR “Chemical Depend*” OR “Drug Addiction” OR “Drug Depend*” OR “Drug Habituation” OR “Alcohol Addiction” OR “Alcohol Dependence Syndrome” OR “Alcohol Depend*”	344945	
	S7: (MM "Shared Services, Health Care")	450	
	S8: ‘Access to Health Care’ OR ‘Access to Health Services’ OR ‘Care barrier’ OR ‘Direct Access’ OR ‘Health Service’ OR ‘Direct Access’ OR ‘Health Care Accessibility’ OR ‘Health Service Access’ OR ‘Health Service Accessibility’ OR ‘Health Services Access’ OR ‘Support Services’ Or ‘support services access’ OR ‘Healthcare inequalities’ OR ‘Healthcare Disparity’	361881	
	S9: S1 OR S2	73477	
	S10: S3 OR S4	2265536	
	S11: S5 OR S6	344945	
	S12: S7 OR S8	361881	
	S13: S9 AND S10 AND S11 AND S12	609	
	2010-Present	387	
	English Language	377	377

Table 7: EMBASE Database Search Terms and Results

EMBASE	S1: 'domestic violence'/exp	67453	
	S2: “Domestic Abuse” OR “Domestic Violence” OR “Intimate Partner Abuse” OR “Intimate Partner Violence” OR “abusive relationship” OR “Controlling relationship” OR “Emotional abuse” OR “Financial Abuse” OR “Coercive control” OR “Physical Abuse” OR “emotional abuse” OR “Isolation” OR “Intimidation” OR “Sexual Abuse” OR “family violence” OR "LGBTQ+ family violence" OR "PARENT abuse" OR "SIBLING abuse" OR "VICTIMS of domestic violence"	1023897	
	S3: 'female'/exp	10683683	
	S4: “Woman” OR “Women” OR “Abused Wom*” OR “Married Wom*” OR “Battered Wom*” OR “Single Wom*” OR “Female” OR "Battered Females" OR "Daughters" OR "Female Criminal Offenders" OR "Mothers" OR "Sisters" OR "Widows" OR "Wives" OR "Working Women"	11329401	
	S5: 'addiction'/exp	344013	
	S6: Addict OR Addicted OR Addict* OR Dependent OR Dependency OR Depend* OR “Substance Depend*” OR “Substance Use” OR “Substance Misuse” OR “Substance Abuse” OR “Alcoholism” OR “Alcohol-related disorders” OR “Addiction Medicine” OR “Opioid-Related Disorders” OR “Narcotic-Related Disorders” OR “Drug Addiction” OR "PSEUDOADDICTION" OR “Opiates” OR “Substance-related disorders” OR “Chemical Depend*” OR “Drug Addiction” OR “Drug Depend*” OR “Drug Habituation” OR “Alcohol Addiction” OR “Alcohol Dependence Syndrome” OR “Alcohol Depend*”	3719920	
	S7: 'health care access'/exp/mj	11991	
	S8: ‘Access to Health Care’ OR ‘Access to Health Services’ OR ‘Care barrier’ OR ‘Direct Access’ OR ‘Health Service’ OR ‘Direct Access’ OR ‘Health Care Accessibility’ OR ‘Health Service Access’ OR ‘Health Service Accessibility’ OR ‘Health Services Access’ OR ‘Support Services’ Or ‘support services access’ OR ‘Healthcare inequalities’ OR ‘Healthcare Disparity’	631708	
	S9: S1 OR S2	1049574	
	S10: S3 OR S4	11357027	
	S11: S5 OR S6	3742655	
	S12: S7 OR S8	639858	
	S13: S9 AND S10 AND S11 AND S12	935	
	2010-Present	600	
	English Language	589	589

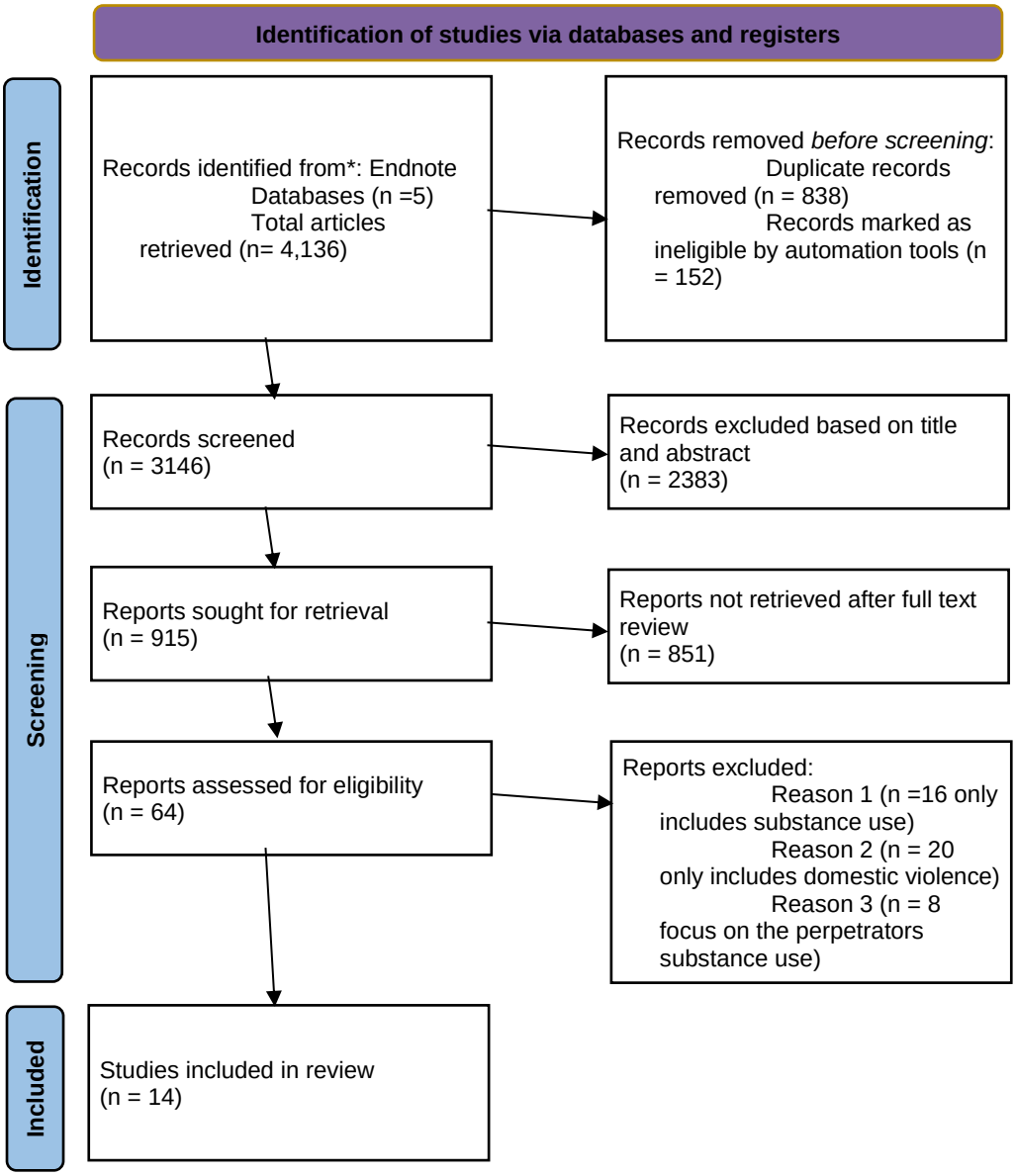
Table 8: Academic Search Complete Database Search Terms and Results

Academic Search Complete	S1: DE "DOMESTIC violence"	16888	
	S2: “Domestic Abuse” OR “Domestic Violence” OR “Intimate Partner Abuse” OR “Intimate Partner Violence” OR “abusive relationship” OR “Controlling relationship” OR “Emotional abuse” OR “Financial Abuse” OR “Coercive control” OR “Physical Abuse” OR “emotional abuse” OR “Isolation” OR “Intimidation” OR “Sexual Abuse” OR “family violence” OR "LGBTQ+ family violence" OR "PARENT abuse" OR "SIBLING abuse" OR "VICTIMS of domestic violence"	260889	
	S3: DE “WOMEN”	49846	
	S4: “Woman” OR “Women” OR “Abused Wom*” OR “Married Wom*” OR “Battered Wom*” OR “Single Wom*” OR “Female” OR "Battered Females" OR "Daughters" OR "Female Criminal Offenders" OR "Mothers" OR "Sisters" OR "Widows" OR "Wives" OR "Working Women"	1894414	
	S5:DE “ADDICTIONS”	5690	
	S6: Addict OR Addicted OR Addict* OR Dependent OR Dependency OR Depend* OR “Substance Depend*” OR “Substance Use” OR “Substance Misuse” OR “Substance Abuse” OR “Alcoholism” OR “Alcohol-related disorders” OR “Addiction Medicine” OR “Opioid-Related Disorders” OR “Narcotic-Related Disorders” OR “Drug Addiction” OR "PSEUDOADDICTION" OR “Opiates” OR “Substance-related disorders” OR “Chemical Depend*” OR “Drug Addiction” OR “Drug Depend*” OR “Drug Habituation” OR “Alcohol Addiction” OR “Alcohol Dependence Syndrome” OR “Alcohol Depend*”	2579186	
	S7: DE “Health Services Accessibility”	38554	
	S8: ‘Access to Health Care’ OR ‘Access to Health Services’ OR ‘Care barrier’ OR ‘Direct Access’ OR ‘Health Service’ OR ‘Direct Access’ OR ‘Health Care Accessibility’ OR ‘Health Service Access’ OR ‘Health Service Accessibility’ OR ‘Health Services Access’ OR ‘Support Services’ Or ‘support services access’ OR ‘Healthcare inequalities’ OR ‘Healthcare Disparity’	1114220	
	S9: S1 OR S2	260889	
	S10: S3 OR S4	1894414	
	S11: S5 OR S6	2579186	
	S12: S7 OR S8	1114220	
	S13: S9 AND S10 AND S11 AND S12	1028	
	2010-Present	773	
	English Language	761	761

Table 9: Total number of articles exported and eligible for screening

Total Articles exported into Endnote			4155
	Duplicates removed	857	3298
Total Articles transferred to Covidence			3298
	Duplicates Removed	152	
Total Articles for screening			**3146**

Appendix 3: PRISMA Flow Diagram



Appendix 4: Joanna Briggs Institute (JBI) Critical Appraisal Tool

JBI Critical Appraisal Checklist for Cohort studies

Reviewer: Sadie Lavelle Cafferkey Date: 20.01.2022

Author: Fedele K. M., Johnson N. L., Caldwell J. C., Shteynberg Y., Sanders S. E., Holmes S. C., Johnson, D. M.
Year: 2018 Record Number: #881

	Yes	No	Unclear	Not applicable
Were the two groups similar and recruited from the same population?	□	□	□	□
Were the exposures measured similarly to assign people to both exposed and unexposed groups?	□	□	□	□
Was the exposure measured in a valid and reliable way?	□	□	□	□
Were confounding factors identified?	□	□	□	□
Were strategies to deal with confounding factors stated?	□	□	□	□
Were the groups/participants free of the outcome at the start of the study (or at the moment of exposure)?	□	□	□	□
Were the outcomes measured in a valid and reliable way?	□	□	□	□
Was the follow up time reported and sufficient to be long enough for outcomes to occur?	□	□	□	□
Was follow up complete, and if not, were the reasons to loss to follow up described and explored?	□	□	□	□
Were strategies to address incomplete follow up utilized?	□	□	□	□
Was appropriate statistical analysis used?	□	□	□	□

Include □ Exclude □ Seek further info □

JBI Critical Appraisal Checklist for Qualitative Research

Reviewer: Sadie Lavelle Cafferkey Date: 17.01.2022

Author: Bender, A. K. Year: 2016 Record Number: #262

	Yes	No	Unclear	Not applicable
Is there congruity between the stated philosophical perspective and the research methodology?	□	□	□	□
Is there congruity between the research methodology and the research question or objectives?	□	□	□	□
Is there congruity between the research methodology and the methods used to collect data?	□	□	□	□
Is there congruity between the research methodology and the representation and analysis of data?	□	□	□	□
Is there congruity between the research methodology and the interpretation of results?	□	□	□	□
Is there a statement locating the researcher culturally or theoretically?	□	□	□	□
Is the influence of the researcher on the research, and vice- versa, addressed?	□	□	□	□
Are participants, and their voices, adequately represented?	□	□	□	□
Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	□	□	□	□
Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	□	□	□	□

Include a□ Exclude □ Seek further info □

JBI Critical Appraisal Checklist for analytical CROSS-SECTIONAL studies

Reviewer: Sadie Lavelle Cafferkey Date: 19.01.2022 Year: 2017 Record Number: 281

Author: Beydoun, H. A., Williams, M., Beydoun, M. A., Eid S. M., Zonderman A. B.

	Yes	No	Unclear	Not applicable
Were the criteria for inclusion in the sample clearly defined?	□	□	□	□
Were the study subjects and the setting described in detail?	□	□	□	□
Was the exposure measured in a valid and reliable way?	□	□	□	□
Were objective, standard criteria used for measurement of the condition?	□	□	□	□
Were confounding factors identified?	□	□	□	□
Were strategies to deal with confounding factors stated?	□	□	□	□
Were the outcomes measured in a valid and reliable way?	□	□	□	□
Was appropriate statistical analysis used?	□	□	□	□

Overall appraisal: Include □ Exclude □ Seek further info □

JBI Critical Appraisal Checklist FOR QUALITATIVE Research

Reviewer: Sadie Lavelle Cafferkey Date: 19.01.2022

Author: Edmond T., Bowland S., Yu M. Year: 2013 Record Number: #810

	Yes	No	Unclear	Not applicable
Is there congruity between the stated philosophical perspective and the research methodology?	☐	☐	☐	☐
Is there congruity between the research methodology and the research question or objectives?	☐	☐	☐	☐
Is there congruity between the research methodology and the methods used to collect data?	☐	☐	☐	☐
Is there congruity between the research methodology and the representation and analysis of data?	☐	☐	☐	☐
Is there congruity between the research methodology and the interpretation of results?	☐	☐	☐	☐
Is there a statement locating the researcher culturally or theoretically?	☐	☐	☐	☐
Is the influence of the researcher on the research, and vice- versa, addressed?	☐	☐	☐	☐
Are participants, and their voices, adequately represented?	☐	☐	☐	☐
Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	☐	☐	☐	☐
Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	☐	☐	☐	☐

Overall appraisal: Include □ Exclude □ Seek further info □

JBI Critical Appraisal Checklist for Cohort studies

Reviewer: Sadie Lavelle Cafferkey Date: 20.01.2022 Author: Bennett L. W., O'Brien P. Year: 2010 Record Number: #268

	Yes	No	Unclear	Not applicable
Were the two groups similar and recruited from the same population?	□	□	□	□
Were the exposures measured similarly to assign people to both exposed and unexposed groups?	□	□	□	□
Was the exposure measured in a valid and reliable way?	□	□	□	□
Were confounding factors identified?	□	□	□	□
Were strategies to deal with confounding factors stated?	□	□	□	□
Were the groups/participants free of the outcome at the start of the study (or at the moment of exposure)?	□	□	□	□
Were the outcomes measured in a valid and reliable way?	□	□	□	□
Was the follow up time reported and sufficient to be long enough for outcomes to occur?	□	□	□	□
Was follow up complete, and if not, were the reasons to loss to follow up described and explored?	□	□	□	□
Were strategies to address incomplete follow up utilized?	□	□	□	□
Was appropriate statistical analysis used?	□	□	□	□

Overall appraisal: Include □ Exclude □ Seek further info □

JBI Critical Appraisal Checklist FOR ANALYTICAL CROSS-SECTIONAL studies

Reviewer: Sadie Lavelle Cafferkey Date: 20.01.2022

Author: Engstrom M., El-Bassel N., Gilbert L. Year:2012 Record Number: #845

	Yes	No	Unclear	Not applicable
Were the criteria for inclusion in the sample clearly defined?	□	□	□	□
Were the study subjects and the setting described in detail?	□	□	□	□
Was the exposure measured in a valid and reliable way?	□	□	□	□
Were objective, standard criteria used for measurement of the condition?	□	□	□	□
Were confounding factors identified?	□	□	□	□
Were strategies to deal with confounding factors stated?	□	□	□	□
Were the outcomes measured in a valid and reliable way?	□	□	□	□
Was appropriate statistical analysis used?	□	□	□	□

Overall appraisal: Include □ Exclude □ Seek further info □

JBI Critical Appraisal Checklist FOR ANALYTICAL CROSS-SECTIONAL studies

Reviewer: Sadie Lavelle Cafferkey Date: 20.01.2022

Author: Bernstein M., Phillips T., Zerbe A., McIntyre J. A., Brittain K., Petro G., Abrams E. J., Myer L. Year:2016
Record Number: #275

	Yes	No	Unclear	Not applicable
Were the criteria for inclusion in the sample clearly defined?	□	□	□	□
Were the study subjects and the setting described in detail?	□	□	□	□
Was the exposure measured in a valid and reliable way?	□	□	□	□
Were objective, standard criteria used for measurement of the condition?	□	□	□	□
Were confounding factors identified?	□	□	□	□
Were strategies to deal with confounding factors stated?	□	□	□	□
Were the outcomes measured in a valid and reliable way?	□	□	□	□
Was appropriate statistical analysis used?	□	□	□	□

Overall appraisal: Include □ Exclude □ Seek further info □

JBI Critical Appraisal Checklist for analytical **cross-sectional studies**

Reviewer: Sadie Lavelle Cafferkey Date: 20.01.2022

Author: Sciff M., Levit S. & Cohen-Moreno R. Year:2010 Record Number: #2599

	Yes	No	Unclear	Not applicable
Were the criteria for inclusion in the sample clearly defined?	□	□	□	□
Were the study subjects and the setting described in detail?	□	□	□	□
Was the exposure measured in a valid and reliable way?	□	□	□	□
Were objective, standard criteria used for measurement of the condition?	□	□	□	□
Were confounding factors identified?	□	□	□	□
Were strategies to deal with confounding factors stated?	□	□	□	□
Were the outcomes measured in a valid and reliable way?	□	□	□	□
Was appropriate statistical analysis used?	□	□	□	□

Overall appraisal: Include □ Exclude □ Seek further info □

JBI Critical Appraisal Checklist for analytical **cross sectional studies**

Reviewer: Sadie Lavelle Cafferkey Date: 20.01.2022

Author: Sutherland M. A., Fantasia H. C., McClain N. Year:2013 Record Number: #2864

	Yes	No	Unclear	Not applicable
Were the criteria for inclusion in the sample clearly defined?	□	□	□	□
Were the study subjects and the setting described in detail?	□	□	□	□
Was the exposure measured in a valid and reliable way?	□	□	□	□
Were objective, standard criteria used for measurement of the condition?	□	□	□	□
Were confounding factors identified?	□	□	□	□
Were strategies to deal with confounding factors stated?	□	□	□	□
Were the outcomes measured in a valid and reliable way?	□	□	□	□
Was appropriate statistical analysis used?	□	□	□	□

Overall appraisal: Include □ Exclude □ Seek further info □

JBI Critical Appraisal Checklist for analytical **cross sectional studies**

Reviewer: Sadie Lavelle Cafferkey Date: 20.01.2022

Author: Tirado-Muñoz J., Gilchrist G., Fischer G., Taylor A., Moskalewicz J., Giammarchi C., Köchl B., Munro A., Dąbrowska K., Shaw A., Di Furia L., Leeb I., Hopf C., Torrens M. Year:2017 Record Number: #2948

	Yes	No	Unclear	Not applicable
Were the criteria for inclusion in the sample clearly defined?	□	□	□	□
Were the study subjects and the setting described in detail?	□	□	□	□
Was the exposure measured in a valid and reliable way?	□	□	□	□
Were objective, standard criteria used for measurement of the condition?	□	□	□	□
Were confounding factors identified?	□	□	□	□
Were strategies to deal with confounding factors stated?	□	□	□	□
Were the outcomes measured in a valid and reliable way?	□	□	□	□
Was appropriate statistical analysis used?	□	□	□	□

Overall appraisal: Include □ Exclude □ Seek further info □

JBI Critical Appraisal Checklist for analytical cross-sectional studies

Reviewer: Sadie Lavelle Cafferkey Date: 20.01.2022

Author: Schäfer I., Gromus L., Atabaki A., Pawils S., Verthein U., Reimer J., Schult, B., Martens M. Year:2014
Record Number: #2594

	Yes	No	Unclear	Not applicable
Were the criteria for inclusion in the sample clearly defined?	□	□	□	□
Were the study subjects and the setting described in detail?	□	□	□	□
Was the exposure measured in a valid and reliable way?	□	□	□	□
Were objective, standard criteria used for measurement of the condition?	□	□	□	□
Were confounding factors identified?	□	□	□	□
Were strategies to deal with confounding factors stated?	□	□	□	□
Were the outcomes measured in a valid and reliable way?	□	□	□	□
Was appropriate statistical analysis used?	□	□	□	□

Overall appraisal: Include □ Exclude □ Seek further info □

JBI Critical Appraisal Checklist FOR QUALITATIVE Research

Reviewer: Sadie Lavelle Cafferkey Date: 19.01.2022

Author: Stone R., Campbell J. K., Kinney D., Rothman E. F. Year: 2021 Record Number: #2826

	Yes	No	Unclear	Not applicable
Is there congruity between the stated philosophical perspective and the research methodology?	□	□	□	□
Is there congruity between the research methodology and the research question or objectives?	□	□	□	□
Is there congruity between the research methodology and the methods used to collect data?	□	□	□	□
Is there congruity between the research methodology and the representation and analysis of data?	□	□	□	□
Is there congruity between the research methodology and the interpretation of results?	□	□	□	□
Is there a statement locating the researcher culturally or theoretically?	□	□	□	□
Is the influence of the researcher on the research, and vice- versa, addressed?	□	□	□	□
Are participants, and their voices, adequately represented?	□	□	□	□
Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	□	□	□	□
Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	□	□	□	□

Overall appraisal: Include □ Exclude □ Seek further info □

JBI Critical Appraisal Checklist for Qualitative **Research**

Reviewer: Sadie Lavelle Cafferkey Date: 19.01.2022

Author: Torchalla I., Linden I. A., Strehlau V., Neilson E. K., Krausz M. Year: 2015 Record Number: #2963

	Yes	No	Unclear	Not applicable
Is there congruity between the stated philosophical perspective and the research methodology?	□	□	□	□
Is there congruity between the research methodology and the research question or objectives?	□	□	□	□
Is there congruity between the research methodology and the methods used to collect data?	□	□	□	□
Is there congruity between the research methodology and the representation and analysis of data?	□	□	□	□
Is there congruity between the research methodology and the interpretation of results?	□	□	□	□
Is there a statement locating the researcher culturally or theoretically?	□	□	□	□
Is the influence of the researcher on the research, and vice- versa, addressed?	□	□	□	□
Are participants, and their voices, adequately represented?	□	□	□	□
Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	□	□	□	□
Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	□	□	□	□

Overall appraisal: Include □ Exclude □ Seek further info □

JBI CRITICAL APPRAISAL CHECKLIST FOR QUASI-EXPERIMENTAL STUDIES

Reviewer: Sadie Lavelle Cafferkey Date: 20.01.2022

Author: Fallot R.D., McHugo G.J., Harris M., Xie, H. Year: 2011 Record Number #872

	Yes	No	Unclear	Not applicable
Is it clear in the study what is the 'cause' and what is the 'effect' (i.e., there is no confusion about which variable comes first)?	□	□	□	□
Were the participants included in any comparisons similar?	□	□	□	□
Were the participants included in any comparisons receiving similar treatment/care, other than the exposure or intervention of interest?	□	□	□	□
Was there a control group?	□	□	□	□
Were there multiple measurements of the outcome both pre and post the intervention/exposure?	□	□	□	□
Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed?	□	□	□	□
Were the outcomes of participants included in any comparisons measured in the same way?	□	□	□	□
Were outcomes measured in a reliable way?	□	□	□	□
Was appropriate statistical analysis used?	□	□	□	□

Overall appraisal: Include □ Exclude □ Seek further info □