



## REVIEW ARTICLE OPEN ACCESS

# Barriers and Enablers for Adolescents Accessing Substance-Use Treatment: A Systematic Review and Narrative Synthesis

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**Correspondence:** Philip D. James ([jamesp1@tcd.ie](mailto:jamesp1@tcd.ie); [philipjames91@gmail.com](mailto:philipjames91@gmail.com))**Received:** 18 December 2023 | **Revised:** 17 May 2024 | **Accepted:** 31 May 2024**Funding:** Philip D. James completed this study as part of their PhD which is funded by a scholarship from the School of Nursing & Midwifery, Trinity College Dublin. No other funding was received.**Keywords:** adolescent | barriers and enablers | health services accessibility | literature review | narrative review | referral and consultation | substance-related disorders

## ABSTRACT

Substance use is a persistent concern for adolescents in many countries due to the significant negative impact on mental, physical and social outcomes. US research indicates that while 4.1% of 12–17-year-olds require treatment, <10% of those who require it access it. This paper summarises the literature available on the barriers and enablers to those under 18s attending substance use treatment to inform policy and practice. Using a systematic approach, we searched six databases for studies which reported barriers and enablers to those aged 18 and under accessing substance use treatment. Thirty-two papers met the inclusion criteria and we present the findings using a narrative synthesis. Only one paper identified explored this topic in Europe. Barriers and enablers are presented across four themes: (1) individual factors, (2) societal factors, (3) Gateway Providers and (4) treatment service factors. Mental health nurses, especially those working with young people, should be aware that adolescents are unlikely to perceive their substance use as problematic and rely on adults to access treatment. Access appears more difficult for females and socially marginalised youth. Various professionals direct young people towards treatment, but clear protocols are needed to encourage them to intervene, which could be an opportunity for nurses to be innovative and lead in this area. Services perceived as adolescent-specific, youth-friendly and flexible encourage attendance while the cost of treatment, including time off work and transport, function as barriers.

## 1 | Introduction

Substance use (SU) is a common phenomenon among adolescents with rates varying by substance and country. Among 15-year-olds, Iceland has one of the lowest rates of last month drunkenness at 6% while Denmark has the highest at 34%, and past month cannabis use among 15-year-olds is particularly low in Central Asia, but the average is 6% worldwide and many Western countries, including Canada, Bulgaria, Poland and Italy, have rates approximately double the average

(Charrier et al. 2024). Australia has seen considerable reductions in SU by 14–17-year-olds, with 9.2% reporting illicit SU in the past year, down from 23% in 2001 (Australian Institute of Health and Welfare 2020). In Ireland, Dooley et al. (2019) found that 49% of final-year school students drink problematically, with 4% possibly alcohol dependent (Dooley et al. 2019). The European School Project on Alcohol and other Drugs (ESPAD) is carried out across Europe every 4 years with school-going 16-year-olds. Cannabis is the most frequently used illicit substance in the EU; 19% of 16-year-olds have used

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cannabis, and some 4% are at high risk of cannabis-related problems (The ESPAD Group 2020b).

With these rates of rates, it appears that substance use disorders (SUD) exist at comparable rates to many mental health disorders in this age group. Sacco et al. (2022) completed a systematic review of prevalence studies of mental health disorders among children and adolescents in Europe and reported that anxiety disorders were most prevalent (7.9%), followed by Attention Deficit-Hyperactivity Disorder (2.9%), Oppositional Defiant Disorder (1.9%) and depressive disorders (1.7%) with no studies on rates of SUDs identified. Use of illicit substances is correlated with increased levels of depression, poorer well-being and a nine-fold increase in suicide attempts compared to those who never used (McMahon et al. 2017). Alcohol use is also associated with both affective and behavioural disorders (Lynch et al. 2006; McMahon et al. 2017). Among adults treated for dual diagnosis, in 72% of cases, the non-SUD preceded the SUD (Guldager, Linneberg, and Hesse 2012).

While there is considerable research on the prevalence of SU and related disorders in the general population, data are sparse regarding SUD among young people attending Child and Adolescent Mental Health Services (CAMHS). In the UK, 8.5% of 16- and 17-year-olds referred to a CAMHS service reported alcohol misuse and 19.5% problematic drug use with higher rates among those with mood disturbance and self-harm (Price and Theodosiou 2011). In Kenya, 30% of referrals to CAMHS were for SUD making it the most prevalent presentation (Wanjiru Kamau et al. 2017). In Australia, Bell et al. (2011) examined SU and mental health presentations to an emergency department by under 18s and reported that only 17.3% had SU alone, and 33.5% had comorbid SU and mental health problems, meaning that just over half the presentations were substance related. Such findings suggest that SU is a feature of many adolescent presentations to CAMHS and further research suggests that it is the clinical characteristic associated with the most service usage (Edbrooke-Childs et al. 2023).

Those who meet the criteria for an SUD in the past year are typically considered in need of treatment (SAMHSA 2022a). However, problematic SU includes those who meet the criteria for an SUD as well as others who may not meet the criteria but may be experiencing harm. As treatment is effective for both groups, it is recommended that adolescent SU ought to be identified and treated as soon as possible (National Institute on Drug Abuse 2014). For this review, tobacco or nicotine use was excluded as they are typically not treated in substance use treatment (SUT) services. SUT refers to specific interventions aimed at helping someone address difficulties connected with their use of a substance, excluding tobacco (SAMHSA 2022a). With adolescents, this typically means psychosocial interventions but, in some instances, may also involve medical care including viral screening or medications. Reviews of outcome research indicate that treatments incorporating family, motivational and cognitive behavioural principles appear to be effective (Hogue et al. 2014; Tanner-Smith, Wilson, and Lipsey 2013). Treatment appears to ameliorate many of the negative effects of SU (Leslie et al. 2016) and young people often speak positively of their experience of treatment (James, Comiskey, and Smyth 2019).

In 2017, the Substance Abuse and Mental Health Services Administration (SAMHSA) in the US reported that 4.1% of US

adolescents aged 12–17 required Substance Use Treatment (SUT) yet only 8.8% of those received treatment (SAMHSA 2018). Four years later, 7.6% of 12–17-year-olds required treatment while only 3.5% received treatment indicating increasing demand and declining uptake (SAMHSA 2022a). Not recognising a need for treatment is the norm with over 96% of those with an SUD not perceiving they needed treatment regardless of age (SAMHSA 2022a). By comparison, during the same period, the rate of adolescents with a Major Depressive Episode receiving treatment remained constant at approximately 40%, a rate almost 12 times greater than those with an SUD (SAMHSA 2022a).

Such low levels of SUT uptake are concerning as intervening before adolescents are dependent, is effective (Carney and Myers 2012; National Institute on Drug Abuse 2014) and early initiation of SU is associated with various negative outcomes (Hall et al. 2016). Three-quarters of adults entering SUT in the US commenced use as a child (Strashny 2013). Reviews have previously been carried out looking at the barriers to attendance at youth mental health services but these have either excluded SU (Anderson et al. 2017; O'Brien et al. 2016) or include samples that extend well into adulthood (Anderson et al. 2017; Brown et al. 2016; O'Brien et al. 2016). Hence, their applicability to under 18s attending SUT is dubious.

In summary, SU and related harms are common among those aged under 18 and more common among teenagers with mental health problems. Despite this, relatively few access treatment. The aim of this review was to summarise the literature on the barriers and enablers of under 18s accessing SUT to inform policy and mental health nursing practice.

## 2 | Methods

### 2.1 | Design

A systematic review with a narrative synthesis was undertaken and the Preferred Reporting System Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Page et al. 2020) were followed in the preparation of this report.

### 2.2 | Search Strategy

Six databases (CINAHL, EMBASE, ERIC, Medline, PsycINFO and Web of Science Core Collection) were systematically searched. In addition, the Journal of Child and Adolescent Substance Abuse was hand-searched. Searches were conducted using search terms based on population (under 18s), treatment (for SU), access (healthcare access/referral) and barriers or enablers using Medical Subject Headings (MeSH) and Boolean operators as appropriate (see Table 1). The searches were originally carried out in 2022 but in redrafting the paper, the searches were updated and cover 2002–2023 inclusive.

### 2.3 | Inclusion and Exclusion Criteria

Table 2 outlines the inclusion and exclusion criteria. It became apparent that many studies focus on adolescents aged 18 and

**TABLE 1** | Search terms.

| Concept                             | Key term/MeSH term                                                                                                 | Title and abstract keyword search                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Adolescents                         | Database-specific keyword/<br>term for adolescent                                                                  | Teen* OR Young Adult* OR Youth* OR Young Person*<br>OR Young People* OR High School Student* OR<br>Pubescent OR Puberty* OR Juvenile* OR Under-age*                                                                                                                                                                                               |
| Substance-Use Disorder<br>Treatment | Database-specific keyword/term<br>for substance-use disorder                                                       | Substance Use Disorders OR Alcohol Abuse OR<br>Alcoholism OR Substance* OR Drug* OR Cannabis*<br>OR Narcotic* OR Marijuana* OR Cocaine* Ecstasy<br>OR MDMA OR Heroin OR Opiate* OR Drink* Near 2<br>Recover* OR Rehab* Treat* OR Counsel* OR Advice*<br>OR Psycho-social* OR Therap* AND Program* OR<br>Service* OR Model* OR Framework* OR Guid* |
| Health Service Access/<br>Referral  | Database-specific keyword/term for<br>Health Service Access/Accessibility<br>OR referral/referral and consultation | Access* OR Entrance OR Entry OR Admitt* OR Refer*                                                                                                                                                                                                                                                                                                 |
| Barriers and enablers               | No database-specific keywords                                                                                      | Barrier* OR Obstacle* OR Challenge* OR<br>Enabl* OR Facilitat* OR Motivat*                                                                                                                                                                                                                                                                        |

**TABLE 2** | Inclusion and exclusion criteria.

|                        | Inclusion                                                                                        | Exclusion                                                                  |
|------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Study design           | Qualitative or quantitative<br>Mixed methods                                                     | Opinion pieces/commentaries<br>Non-research articles<br>Systematic reviews |
| Population             | Under 18s<br>Under 18s and over 18 where data were<br>presented separately on minors.            | Over 18s exclusively                                                       |
| Condition              | Substance use disorder<br>Substance dependence<br>Substance abuse<br>Alcohol or illicit drug use | Nicotine or tobacco dependence                                             |
| Phenomenon of interest | Referral to substance use treatment<br>Barriers or enablers of treatment<br>attendance/referral  |                                                                            |
| Geographic location    | Worldwide                                                                                        | None                                                                       |
| Language               | English                                                                                          |                                                                            |
| Publication type       | Peer reviewed                                                                                    | Dissertations<br>Reports                                                   |
| Publication date       | 2002–2023                                                                                        |                                                                            |

under. As 18-year-olds may still be in secondary school, their inclusion with minors is appropriate and so we included such studies which added six studies to our review. The primary focus was on adolescents using substances regardless of whether they were diagnosed with or met the criteria for an SUD.

## 2.4 | Study Selection

The initial search yielded 4371 articles following the removal of duplicates (see Figure 1). One author (Author 1) screened these abstracts against the eligibility criteria, and 4191 articles were removed. The remaining 180 articles underwent full-text screening by two reviewers (Author 1 and Authors 2/3). There

were no disagreements regarding which studies should be included or excluded. Thirty-two of the 180 articles met the criteria and were included in the review. The other 148 studies were excluded for several reasons including, specific under 18s data not reported (45), not addressing barriers or enablers (38), adult population (31), not a study (16), poster abstract (17) and not reporting SU separately from mental health findings (1).

## 2.5 | Data Extraction and Synthesis

Narrative synthesis is an appropriate approach when a review includes both quantitative and qualitative findings or when other methods of review are not possible such as

# PRISMA 2020 flow diagram for new systematic reviews which included searches of databases and registers only

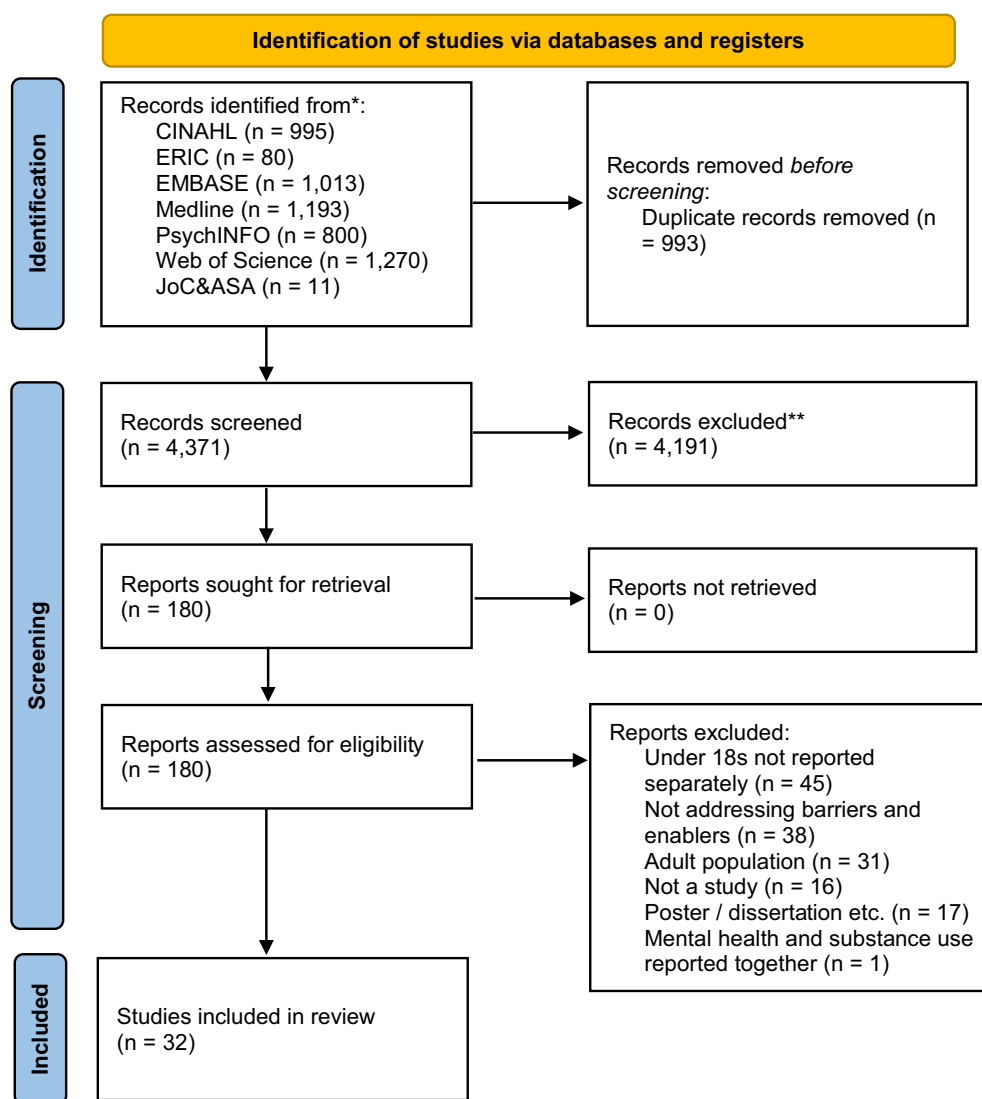


**FIGURE 1** | PRISMA flow diagram (adapted from Page et al. 2020).

when studies using disparate designs are included (Popay et al. 2006). Thomas and Harden's (2008) guide to thematic synthesis guided the process with the results section of each paper taken as the data for analysis. Step one involved familiarisation with the data by rereading the articles and extraction of data into a spreadsheet and step two involved generating initial codes within the spreadsheet using an inductive approach. Step three entailed entering the results section from each paper into NVivo software, where line-by-line coding was completed (Thomas and Harden 2008). The final two stages involved the reviewing and refining of these codes into their final format by the creation of a thematic map and finally the writing up of the report.

Appraisal tools from the Joanna Briggs Institute (JBI) were used for qualitative, cross-sectional, quasi-experimental, randomised- and case-controlled studies (Aromataris and Munn 2020). As there is no JBI tool for mixed methods studies, the Mixed Methods Appraisal Tool was used for appraising these studies (Hong, Gonzalez-Reyes, and Pluye 2018). For

surveys, the Quality of Survey Studies in Psychology (Q-SSP) (Protogerou and Hagger 2020) was used, and in some instances, this was used in conjunction with the JBI tool and both are reported.

## 3 | Results

### 3.1 | Characteristics of the Studies

Most studies were completed in the USA (n=23) followed by Australia (n=4), Canada (2) and one each from France, Lebanon and South Africa. However, study areas were distributed across health (10), SU services (9), education (8), justice (4) and a general population survey (1). Most studies were quantitative (n = 20), followed by qualitative (n = 8) and mixed methods (n = 4). Diverse samples were employed including adolescents (both in SUT and general population), parents, healthcare professionals, school staff, probation officers (POs) and SUT providers. The varied methodologies were reflected

in the contrasting objectives of the studies with just under half specifically addressing barriers and enablers. The studies addressing barriers and enablers were not homogenous, some looked at barriers to screening and referral while others focused on parents' or adolescents' perception of barriers to help-seeking or attending services. An overview of the studies is included in Table 3. Eleven studies assessed factors associated with treatment referral or entry objectively, either using a large general population sample or statistically assessing factors associated with referral or entry to treatment. Additional emphasis should be placed on these studies, and they are highlighted using bold text in Table 3.

### 3.2 | Quality Appraisal

No studies were excluded based on quality, but the quality scores are reported with meeting 70% of the criteria taken as an indicator of good quality. Nineteen studies (59%) scored >70%, while seven (22%) scored below. Twelve studies (37.5%) were assessed using two tools (Q-SSP and a JBI tool), and one study was deemed to be of poor quality and five of good quality on both tools used. The other six (19%) were deemed of poor quality by one tool but good quality by the other providing an ambiguous signal of quality. These scores are summarised in Table 4.

## 4 | Findings

The synthesised data from the 32 studies on the barriers and enablers for adolescents accessing SUT were placed into four broad themes: (1) individual factors, (2) societal factors, (3) gateway providers (including three subthemes: medical, educational and criminal justice) and (4) treatment service factors. The findings are summarised in Table 5.

### 4.1 | Individual Factors

Individual factors related to accessing SUT by adolescents include race or ethnicity, age, gender and motivation. Many studies have identified race as a factor in treatment but the mechanism by which it affects treatment attendance is unclear. For example, treatment providers in Massachusetts reported that non-White clients were less likely to be able to afford treatment, have health insurance coverage and more likely to require an interpreter (Acevedo et al. 2020). In Canada, providers noted that some cultures have strong anti-SU values which may act as barriers to accessing treatment (Ali et al. 2022). In another study, incentive to change SU varied with ethnicity and was largely accounted for by Black youth reporting less fear of going to jail (Breda and Heflinger 2004). Race appears to impact how adolescents are handled by courts (Belenko et al. 2022; Breda 2005; Pullmann and Heflinger 2009). For example, 23% of White offenders were referred to treatment compared to only 9% of Black offenders (Breda 2005) and White offenders were 44% more likely to be referred to SUT compared to those from minority backgrounds (Pullmann and Heflinger 2009). Those from ethnic minorities are also less likely to access treatment following intervention from medical practitioners (Sterling et al. 2017). Parents' higher

educational level and White ethnicity also predict access to treatment (Cheng and Lo 2010; Lo and Cheng 2013; Mensinger et al. 2006; Wu et al. 2011).

Age has been reported as a factor with older teens more likely to have received specialist SUT (Lo and Cheng 2013) but more studies suggest age has no impact (Breda and Heflinger 2004; Cheng and Lo 2010; Pullmann and Heflinger 2009; Sterling et al. 2017). Males are more likely to receive SUT (Cheng and Lo 2010) although females appear more open to seeking help (Lubman et al. 2018). However, other studies suggest gender is not relevant (Lo and Cheng 2013; Sterling et al. 2017) and motivation to change is similar among males and females in treatment (Breda and Heflinger 2004).

Motivation to change SU has been identified as a significant factor in adolescents accessing treatment, by service providers (Acevedo et al. 2020; Mensinger et al. 2006), medical staff (Alayan et al. 2021; Harris et al. 2016; Stanhope et al. 2018; Stern et al. 2007), parents (Carney et al. 2021; O'Brien and Hudson-Breen 2023) and adolescents (Elkington et al. 2020; Wu et al. 2011) but is typically low among teens referred to SUT (Breda and Heflinger 2004). Only 4.9% of opiate-using and 10.9% of opiate-dependent teens perceive a need for treatment with Black adolescents less likely than other races to report a need (Wu et al. 2011). A more recent study examined the effect of three variables (relationship problems, being arrested and physical health problems) on accessing treatment across different age groups and found that being arrested in the previous year greatly increased the odds of accessing treatment compared to the other two variables (Kusiak and Johnson 2024). The most endorsed barriers to seeking professional help for alcohol problems according to teens were embarrassment and a desire for self-reliance (Lubman et al. 2017).

Finally, the level of SU by adolescents is also a factor with poly-substance use associated with increased motivation to change (Breda and Heflinger 2004) and likelihood of receiving treatment (Bukstein et al. 2005). Clinical impairment also appears to increase motivation to change while cannabis use decreases motivation (Breda and Heflinger 2004).

### 4.2 | Societal Factors

Parents describe being unsure how to respond to adolescent SU and needing support (Carney et al. 2021; Stern et al. 2007). Adolescents report not having a parent to bring them to and support them in treatment as a barrier (Elliott and Larson 2004) and caregivers report that this is more challenging in single-parent households (Carney et al. 2021). Young people in single-parent households do not attend as many appointments (Mensing et al. 2006) but are as likely to be referred for treatment by a court as those living with both parents (Breda 2005). Only 10% of young people see parents as a main source of help for SU (Lubman et al. 2017) and a program designed to increase teens' willingness to seek help from professionals unfortunately led to reductions in intentions to seek help from family members (Lubman et al. 2018). Four qualitative studies with professionals reported that parents' SU is frequently a barrier to accessing treatment as the parents

TABLE 3 | Overview of studies included in the review.

| Author/country                  | Study design        | Quality appraisal                                                                                                                                                        | Description                                                                                                                                                                                                                                                                 | Barriers and facilitators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acevedo et al. (2020)<br>USA    | Qualitative         | 7/10 on JBI <sup>a</sup><br>Information on philosophy and culture missing                                                                                                | Interviews with 19 substance treatment providers (25 invited) in Massachusetts to get views on barriers and facilitators on retaining adolescents in treatment.                                                                                                             | <i>Barriers:</i> transportation, cost (including insurance), poor parental support, parental SU problems, language barriers, poor motivation, younger age, trauma and mental health difficulties.<br><i>Enablers:</i> longer open hours, meeting in community locations, flexibility, incentives such as snacks, interpreters, pleasant facilities, engagement with other services, high motivation.                                                                                                                                                                                                                                            |
| Alayan et al. (2021)<br>Lebanon | Quantitative/Survey | 75% on the Q-SSP <sup>b</sup><br>4/4 on JBI <sup>c</sup><br>Four items not applicable                                                                                    | Questionnaires were completed by nurses ( <i>n</i> = 90), doctors ( <i>n</i> = 32) and other primary care staff ( <i>n</i> = 17) with a response rate of 23%. The questionnaire asked about their attitude towards and role in SBIRT as well as barriers to implementation. | <i>Barriers to SBIRT:</i> adolescents not being truthful (66.9%), adolescent being punished (56.4%), lack of time (47.4%), lack of training (46.6%) and lack of staff (36.1%). Adolescents do not want to come back for appointments (76.3%) and are embarrassed to be seen in the clinic (66.1%).<br><i>Reasons for not referring to treatment:</i> unable to afford cost (60.5%), adolescent not interested in treatment (57%) and lack of local treatment programmes (54.7%).<br><i>Enablers of SBIRT:</i> government recommendations, training opportunities, financial resources, expert support and recommendations by professional body. |
| Ali et al. (2022)<br>Canada     | Mixed methods       | 7/15 or 46.6% on the MMAT <sup>d</sup><br>The qual and quant good individually but there was little reporting of quant results and inadequate integration of components. | A study of treatment providers to identify ways to improve support to young with SU issues in Ontario. One hundred and six SU treatment-providing organisations were invited, and 54 (51%) took part in a survey and 16 of these took part in follow-up interviews.         | <i>Barriers:</i> legal status of cannabis and alcohol normalises their use and makes young people less likely to seek help, lack of knowledge of risks and social acceptability. Stigma and negative attitude of parents makes young people less likely to talk to them. Internalised shame of drug use.<br><i>Enablers:</i> more outreach to schools, improved education in school. Normalising conversations around drugs and alcohol.                                                                                                                                                                                                        |
| Belenko et al. (2022)<br>USA    | Quantitative—RCT    | 8/13 on JBI <sup>g</sup><br>Allocation not blind                                                                                                                         | Multisite RCT seeking to increase identification of SU and access to treatment by justice-involved youth ( <i>n</i> = 14012). Comparisons were made between 18 pairs of matched sites randomised to either core or enhanced conditions.                                     | <i>Barriers: non-White youth were less likely to be referred to treatment</i><br><i>Enablers: those who tested positive for substances, had a substance-related charge, were placed in detention or other more intensive supervision were more likely to be referred to treatment.</i>                                                                                                                                                                                                                                                                                                                                                          |

(Continues)

TABLE 3 | (Continued)

| Author/country                      | Study design                        | Quality appraisal                                                                                                                                     | Description                                                                                                                                                                                                                                                                                                                                          | Barriers and facilitators                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Berridge et al. (2018)<br>Australia | Qualitative                         | 8/10 on JBI <sup>a</sup>                                                                                                                              | Examined perceived barriers and enablers to seeking help for SU problems by interviewing 34 teens aged 12–16 from two schools in Melbourne.                                                                                                                                                                                                          | Three overlapping themes identified which reflected barriers and enablers: approachability, confidentiality and approachability and expertise.<br><i>Barriers</i> : less likely to go to seek help from someone perceived as judgemental, would tell their parents or lacked expertise.<br><i>Enablers</i> : more likely to access help when they perceived the help source as supportive and understanding, keeping things confidential and having expertise. |
| Breda (2005)<br>USA                 | Quantitative—cross-sectional        | 7/8 on JBI <sup>c</sup>                                                                                                                               | Explores whether ethnicity plays a role in court referral to SU treatment by examining numerous variables for 36 000 youth up to age 18 who were before 98 courts in a US state in 1997.                                                                                                                                                             | <i>Barriers</i> : Blacks (9%) were less likely than whites (23%) to be referred when charged with a drug- or alcohol-related offence.<br><i>Enablers</i> : a prior record of offending or being before the court on a drug- or alcohol-related offence increases the chance of being referred.                                                                                                                                                                 |
| Breda and Heflinger (2004)<br>USA   | Quantitative—cross-sectional survey | 42% of the Q-SSP <sup>b</sup><br>Data reused from previous studies and data collection unclear.<br>5/7 on JBI <sup>c</sup><br>One item not applicable | 249 adolescents aged 12–18 who were admitted to publicly funding SU treatment completed various measures during an interview. They sought to examine the incentives to change and what factors may affect them.                                                                                                                                      | <i>Barriers</i> : about half the young people had low or moderately low levels of incentive to change. Cannabis users have a lower incentive to change than alcohol or polysubstance users. Blacks appear to be less affected by extrinsic factors.<br><i>Enablers</i> : incentive to change is related to the amount of adversities youth experience due to their SU—the more adversities the more likely they are to desire and recognise a need for change. |
| Bukstein et al. (2005)<br>USA       | Quantitative                        | 5/8 on JBI <sup>c</sup><br>Data on sampling and setting absent                                                                                        | Examined mental health- and substance-related variables that may predict treatment utilisation. 393 adolescents aged 12–18 were recruited from a variety of services in Pittsburgh between 1991 and 2005 as part of a larger study. Data analysed were from the baseline assessment and the 1-year follow-up and involved a range of questionnaires. | <i>Barriers</i> : there appear to be few mental health or SU variables related to entering SU treatment.<br><i>Enablers</i> : the number of drug groups used was the only SU predictor of entering treatment. Conduct disorder increased access but was not statistically significant.                                                                                                                                                                         |

(Continues)

TABLE 3 | (Continued)

| Author/country                                | Study design                 | Quality appraisal                                                                                                                                                                          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Barriers and facilitators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carney et al. (2021)<br>South Africa          | Qualitative                  | 9/10 on JBI <sup>a</sup><br>No discussion of philosophical perspective.                                                                                                                    | Focused on the experience of caregivers of substance-using teens including support required and barriers to accessing support. 21 caregivers (19 months, 2 grandmothers) of adolescents who were using substances but not receiving treatment were interviewed in three focus groups. They were purposively recruited from an economically disadvantaged, ethnically integrated community in 2017.                                                                                                                                                                            | <i>Barriers:</i> cost of treatment, adolescent having to want treatment, normalisation of SU<br><i>Enablers:</i> police arrests provide an opportunity to intervene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Cheetham et al. (2019)<br>Australia           | Quantitative—survey          | 68% on the Q-SSP <sup>b</sup><br>Lost marks in the data collection section as little info on attrition, validity of instruments and demographics were included.<br>7/8 on JBI <sup>c</sup> | Examined stigmatising attitudes towards alcohol misuse and impact on help-seeking among 2447 students with a mean age of 14.9. Students were presented with vignettes of young people with alcohol and depression problems and completed the General Help-Seeking Questionnaire and a scale measuring stigmatising attitudes.                                                                                                                                                                                                                                                 | <i>Barriers:</i> young people were more likely to perceive those with alcohol problems as weak and more dangerous compared to those with depression. Those with a weak, not sick attitude are less willing to help peers with alcohol problems.<br><i>Enablers:</i> perceptions of dangerousness increased intentions to encourage help-seeking from formal sources.                                                                                                                                                                                                                                                                                                                                                                           |
| Cheng and Lo (2010)<br>USA                    | Quantitative—cross-sectional | 3/8 on JBI <sup>c</sup><br>44% on the Q-SSP <sup>b</sup><br>Lost most marks as using 20-year-old secondary data so little info on data collection.                                         | <b>Secondary analysis of data gathered in 1989 from interviews with 1288 pairs of young people (9–17 years) and a caregiver.</b><br>They examined the effect of adolescents' mental health or SU disorder and dual diagnosis had on their utilisation of SU and mental health services.<br><br>Examined the feasibility and sustainability of providing SBIRT interventions within a school setting. Over a 16-week period, 248 students were screened, and data were provided on detection rates, uptake of referrals and practical issues related to organisational issues. | <b><i>Barriers:</i> being diagnosed with an SU only reduced service utilisation. Lack of insurance coverage.</b><br><b><i>Enablers:</i> criminal justice involvement increased change of service utilisation. Being white and increased parental education increased the odds of getting treatment. Parental history of service usage increased treatment utilisation. Parents or adolescent views on the need for treatment had no impact.</b><br><br><i>Barriers:</i> recouping money from insurance companies was difficult.<br><i>Enablers:</i> school screening appears acceptable to students and parents; of 105 positive screens only one refused a brief intervention and of 998 enrolled students only five parents refused consent. |
| Curtis, McLellan, and Gabellini (2014)<br>USA | Quantitative                 | 4/5 on JBI <sup>c</sup><br>Three items not applicable.                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

(Continues)

TABLE 3 | (Continued)

| Author/country                   | Study design        | Quality appraisal                                                                                                                                                                   | Description                                                                                                                                                                                                                                                                           | Barriers and facilitators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Elkington et al. (2020)<br>USA   | Qualitative         | 8/10 on JBI <sup>a</sup>                                                                                                                                                            | Examined factors affecting uptake and retention of SU treatment by youth on probation. Interviews and focus groups with 58 participants—10 young people and caregivers, 27 SU treatment providers and 11 probation officers in New York State.                                        | <i>Barriers:</i> lack of specific services for adolescents, treatment alongside adults, treatment providers policies such as probation officers unable to refer, wait times, lack of convenient appointment times. Challenges within parent-child relationship include breakdown, parents unwilling or unable to be involved, shame and blame and denial or minimisation of adolescents' SU problem.                                                                                                                                                                                                                                                                    |
| Elliott and Larson (2004)<br>USA | Mixed methods       | 12/15 or 80% on the MMAT <sup>d</sup>                                                                                                                                               | Explored perceived healthcare needs, foregone care, barriers to care and associated risk factors in a sample of 15–17-year-olds. 1948 completed the questionnaire and nine focus groups ( $n = 71$ ) were completed in the follow-up.                                                 | <i>Barriers:</i> 11% of the sample perceived they needed SU treatment. Of those who perceive they need it, SU treatment (53%) and counselling (57%) were the care most likely to not be received. Five factors were identified as barriers to care: anxiety/fear, lack of access (transport, cost, no time), self-reliance, unsupportive parent and helpless/hopeless.                                                                                                                                                                                                                                                                                                  |
| Fortin et al. (2022)<br>France   | Quantitative—survey | 80% on the Q-SSP <sup>b</sup><br>7/8 on JBI <sup>c</sup>                                                                                                                            | To assess the barriers and expectations of 12–17-year-olds regarding the identification and management of their substance use by their general practitioner. 277 young people participated, 41% of whom had used a substance in the past year.                                        | <i>Barriers:</i> Those at risk were concerned about feeling judged or having the GP tell their parents about their SU<br><i>Enablers:</i> Young people perceive their GP as caring and competent to address SU and take time to do so. Using a questionnaire was perceived as a useful way to raise the topic of SU                                                                                                                                                                                                                                                                                                                                                     |
| Harris et al. (2016)<br>USA      | Quantitative—survey | 4/6 on JBI <sup>c</sup><br>Two items not applicable.<br>72% on the Q-SSP <sup>b</sup><br>Lost marks for lack of info on tool, its validity or data collectors, including conflicts. | Examined perceived barriers to implementing discussing SU with adolescents and getting them to engage with interventions. Surveys were sent to 111 school-based health centres and 51 programme directors from the sponsoring organisation. 40% ( $n = 65$ ) returned questionnaires. | <i>Barriers:</i> time constraints (42.6%), students not being honest (42.6%), lack of training (27.8%), not knowing where to refer (22.2%) and uncertainty about the effectiveness of treatment ( $n = 20.4\%$ ) were barriers to screening. Students not interested in treatment (46.4%), transportation (35.7%), lack of adolescent-specific services (33.9%), unaware of services (28.6%), treatment cost (26.8%) and having to inform parents (23.2%) were barriers to referring students to SU services.<br><i>Enablers:</i> only 2% perceived it was someone else's responsibility to complete and only 3.7% perceived it as less important than other screening. |

(Continues)

TABLE 3 | (Continued)

| Author/country                           | Study design                  | Quality appraisal                                                                                                                                                                        | Description                                                                                                                                                                                                                                                                                                                                                              | Barriers and facilitators                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hunter, Godley, and Godley (2014)<br>USA | Quantitative—quasi-experiment | 8/9 on JBI <sup>e</sup>                                                                                                                                                                  | Examined the feasibility of providing Adolescent Community Reinforcement Approach (ACRA) treatment to adolescents with SU disorders in school. They compared adolescents receiving the same treatment approach in school ( $n = 492$ ) and clinic ( $n = 2276$ ) settings on a variety of measures including intake characteristics, implementation quality and outcome. | <i>Barriers:</i> school-based samples were less likely to receive the parent components of treatment<br><i>Enablers:</i> school-based treatment was more likely to reach girls and young people earlier in their substance-using careers as well as those with less                                                                                                                                        |
| Kristman-Valente et al. (2022)<br>USA    | Qualitative                   | 3/10 on JBI <sup>a</sup><br>No philosophical perspective or methodology was named.<br>No statement locating researchers culturally or theoretically, or their influence on the research. | Focus group interviews with 11 paediatric primary care providers to discuss implementing SBIRT for adolescent cannabis use in their clinics.                                                                                                                                                                                                                             | <i>Barriers:</i> 7 themes identified—1, time limitations; 2, billing/reimbursement; 3, confidentiality issues; 4, resource constraints and training needs; 5, concern for other substances (alcohol and vaping); 6, patient and parents ambivalence to cannabis use; 7, provider ambivalence towards cannabis.                                                                                             |
| Kusiak and Johnson (2024)<br>USA         | Quantitative—survey           | 84% on the Q-SSP <sup>b</sup><br>8/8 on JBI <sup>c</sup>                                                                                                                                 | Used data from the 2019 National Survey on Drug Use and Health with a sample of 56136 people. The effect of three potential motivators (physical health, social relationships and criminal justice involvement) was examined across three age groups (12–17, 18–25 and 26+).                                                                                             | <i>Barriers:</i> 10.3% of 12–17-year-olds who needed treatment received it<br><i>Enablers:</i> Being arrested was the biggest predictor of treatment access, followed by relationship problems. Experiencing physical health problems had no statistically significant effect on odds of entering treatment.                                                                                               |
| Levy et al. (2020)<br>USA                | Quantitative—survey           | 73% on the Q-SSP <sup>b</sup><br>2/6 on JBI <sup>c</sup><br>2 items not applicable—outcome and condition measurement.                                                                    | Examined the use of SBIRT practices among paediatricians in Massachusetts with a postal survey sent to 25% of the paediatricians in the state (620) with a final sample of 160.                                                                                                                                                                                          | <i>Barriers:</i> lack of time (38%), limited opportunity to talk to patients without parents present (29%) and unsure how to respond to screening results (10%) were the major barriers to screening and brief interventions. Adolescent refusal to return (68%), confidentiality (44%), limited access/knowledge of treatment (40%), lack of expertise (36%) were the barriers to referral and follow-up. |

(Continues)

TABLE 3 | (Continued)

| Author/country                    | Study design                        | Quality appraisal                                                                                                                                                                                                                                                                                         | Description                                                                                                                                                                                                                                                                                                                                                            | Barriers and facilitators                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lo and Cheng (2013)<br>USA        | Quantitative—<br>survey             | 72% on the Q-SSP <sup>b</sup> Lost<br>marks related to data<br>collection items—for<br>example, not into<br>on data collectors or<br>date of collection.<br>5/8 on JBI <sup>c</sup><br>One item not<br>applicable. As<br>secondary data<br>use some info was<br>unclear such as<br>confounding variables. | Examined social and psychological<br>factors behind adolescents' receipt<br>of SU treatment using data from<br>17727 adolescents aged 12–17<br>who completed the 2007 National<br>Survey on Drug Use in Health.                                                                                                                                                        | <i>Barriers:</i> non-whites were less likely to<br>receive specialist SU treatment. Only<br>0.6% perceived a need for treatment and a<br>specialist but not specialist treatment.                                                                                                                                                                                                                                                                                                                 |
| Lubman et al. (2017)<br>Australia | Quantitative—<br>survey             | 58% on the Q-SSP <sup>b</sup><br>Lost most of its marks<br>due to lack of info<br>on data collection.<br>5/7 on JBI <sup>c</sup><br>One item not applicable<br>Unclear info on<br>confounding variables.                                                                                                  | Examined adolescents' ability to<br>recognise symptoms of depression and<br>alcohol misuse, barriers to help-seeking<br>and intentions to help a peer seek help.<br>An online survey was completed in<br>class by 2456 adolescents aged 14–15.                                                                                                                         | <i>Barriers:</i> males (37%) were less likely to seek help<br>than females (57.8%) and less likely to have helped<br>a friend seek help (66.9% v 44.3%). Males were also<br>less likely to perceive a need for professional help.<br><i>Enablers:</i> more young people reported being likely<br>to seek professional help for an SU problem (45%)<br>than a depression problem (41.2%) but most were<br>unsure or unlikely to seek professional help.                                            |
| Lubman et al. (2018)<br>Australia | Quantitative—<br>Quasi-experimental | 5/6 on JBI <sup>c</sup><br>Three items not<br>applicable                                                                                                                                                                                                                                                  | Examined the effectiveness of<br>MAKINGtheLINK programme, a<br>school-based intervention aimed at<br>addressing barriers and enablers of<br>help-seeking for SU problems. 247<br>students, aged 12–15, from three<br>schools in Victoria, completed the 3-h<br>programme and completed measures<br>on help-seeking barriers before,<br>after and at 6 weeks follow-up. | <i>Barriers:</i> following the programme intentions to<br>seek help from family decreased and remained<br>lower at follow-up. There was an improvement<br>in confidence in help-seeking at follow-up.<br><i>Enablers:</i> the programme reduced perceived barriers<br>to help-seeking. Intentions to seek help from<br>professional sources increased initially but returned<br>to preintervention levels at follow-up except for school<br>counsellors and SU professionals which remained high. |

(Continues)

TABLE 3 | (Continued)

| Author/country                               | Study design                   | Quality appraisal                                                                                                                                                                               | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Barriers and facilitators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mensinger et al. (2006)<br>USA               | Quantitative—<br>correlational | 50% on the Q-SSP <sup>b</sup><br>Lost marks due to lack of<br>info on data collection—<br>secondary use of data<br>from the Cannabis Youth<br>Treatment Project.<br>8/8 on the JBI <sup>b</sup> | Examined the perceived barriers to<br>treatment of 600 adolescents aged<br>13–18 who were participating in the<br>Cannabis Youth Treatment study. The<br>participants completed barriers to<br>treatment questionnaire as part of their<br>follow-up after completing treatment.                                                                                                                                                                                                               | <i>Barriers:</i> four dimensions of barriers to participating<br>in treatment; practical obstacles, treatment readiness,<br>treatment relevance and treatment compatibility<br>all explained variations in attendance. Patients<br>from minority, lone parent families and with more<br>severe symptoms are less likely to attend.<br><i>Enablers:</i> treatments of shorter duration<br>are more likely to retain patients.                                                                                                                                                   |
| Monico et al. (2021)<br>USA                  | Qualitative                    | 5/10 on JBI <sup>a</sup><br>No philosophy or qual<br>approach named and<br>little info addressing bias.                                                                                         | Interviews with 20 primary care<br>staff from seven sites in Baltimore,<br>Maryland and was part of a<br>larger study on the introduction<br>of SBIRT. This study examined<br>barriers and facilitating factors<br>to implementing SBIRT.                                                                                                                                                                                                                                                      | <i>Barriers:</i> lack of time was a challenge in screening.<br>Providing interventions or referrals were less<br>likely to be seen as part of their role. Having to<br>hand the client over to another professional to<br>complete the SBIRT makes declining more likely<br><i>Enablers:</i> there were generally favourable attitudes<br>towards primary care staff screening for SU.                                                                                                                                                                                         |
| O'Brien and<br>Hudson-Breen (2023)<br>Canada | Qualitative                    | 10/10 on JBI <sup>a</sup>                                                                                                                                                                       | Phenomenological study with 18<br>parents who availed of a system<br>which allows for adolescents to<br>be detailed for up to 15 days for<br>stabilisation of their substance use.                                                                                                                                                                                                                                                                                                             | <i>Barriers:</i> Lack of motivation from the young person<br>is a barrier and they are given a choice in entering<br>treatment even though they are not adults. It is hard to<br>find treatment providers, particularly those that treat<br>substance use and mental health together. Waiting<br>lists and programme costs can be significant.                                                                                                                                                                                                                                 |
| Pullmann and<br>Heflinger (2009)<br>USA      | Quantitative—<br>correlational | 10/10 on JBI <sup>f</sup>                                                                                                                                                                       | Examined the role various factors<br>play in the referral of youth<br>from courts to SU treatment,<br>particularly focusing on rurality<br>in Tennessee. Three data sets<br>were used, all youths processed<br>by courts in 1997, a breakdown<br>of counties to give data on<br>county demographics such as<br>socioeconomic breakdown, level<br>of SU treatment available etc.,<br>and a survey of courts in the area<br>which provided data on 93 of the<br>95 counties and 96 of 98 courts. | <i>Barriers:</i> widely varying rates of referral from<br>courts, ranging from 0 to 28% and averaging<br>4.4%. Rural courts tend to have less contact with<br>and a less favourable view of SU services. White<br>youths were 44% more likely to be referred to<br>treatment but this varied across counties.<br><i>Enablers:</i> rurality does not appear to effect the<br>rate of referral to SU treatment, particularly<br>when the court and treatment providers have<br>better relations. More contact between court and<br>treatment providers increases referral rates. |

(Continues)

TABLE 3 | (Continued)

| Author/country                | Study design         | Quality appraisal                                                                                                                     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                         | Barriers and facilitators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stanhope et al. (2018)<br>USA | Mixed methods        | 11/15 or 73% on the MMAT <sup>d</sup><br>Qual and quant components had separate focuses—quant on SBIRT delivery and qual on barriers. | Examined the implementation of SBIRT across 27 community mental health organisations working with adolescents. A qualitative questionnaire was completed where the team led every 3 months for the 18-month duration of the study. Here they were asked to narratively outline the progress and barriers in implementing SBIRT. Thus the report discusses barriers to implementation and at what stage of the implementation process they occurred. | Barriers: the most common barrier was policy and incentives, particularly related to Medicaid / insurance reimbursement and ensuring policies suited external funders. Some state rules require staff completing SBIRT to be SU professionals. Practical barriers revolved around adapting the model to fit into the current system, including electronic records and confidentiality.                                                                                                                                  |
| Sterling et al. (2017)<br>USA | Quantitative—<br>RCT | 10/11 on JBI <sup>g</sup><br>Two items not applicable.                                                                                | Randomised 52 paediatricians to three arms; paediatrician only arm (POA) where they delivered SBIRT, embedded behavioural health clinician arm (EBHCA) where paediatricians screened and referred any positive screens to an in-house specialist and usual care (UC).                                                                                                                                                                               | <b>Barriers: black patients were less likely to initiate treatment. POA referrals were less likely to initiate treatment than UC.</b><br><b>Enablers: of those who screened positive and were referred to specialist treatment, the EBHCA were almost four times as likely to initiate treatment compared to POA. All three arms tended to refer more females and younger clients.</b>                                                                                                                                  |
| Stern et al. (2007)<br>USA    | Qualitative          | 7/10 on the JBI <sup>a</sup><br>Lost marks as no philosophy named.<br>Items to gauge risk of bias not addressed.                      | Examined the feasibility of delivering a brief motivational interviewing intervention to adolescents in primary care. Data were gathered through small feedback sessions with adolescents, parents and staff as well as pilot testing of the intervention with adolescents.                                                                                                                                                                         | <b>Barriers:</b> staff believe young people are unlikely to be truthful and concerned about how to navigate confidentiality with parents present. Staff are also concerned about having time to complete an intervention. Adolescents were concerned about being judged negatively and whether conversations would be confidential.<br><b>Enablers:</b> parents were concerned about SU and so were supportive of primary care staff providing an intervention. The teens were keen to have someone to discuss SU with. |

(Continues)

TABLE 3 | (Continued)

| Author/country             | Study design            | Quality appraisal                                                                                                                                                                                                                                        | Description                                                                                                                                                                                                                                                                                                                                      | Barriers and facilitators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wu et al. (2011)<br>USA    | Quantitative—<br>Survey | 79% on Q-SSP <sup>b</sup><br>Lost marks as used<br>previously gathered<br>data from a national<br>study so some info<br>on data collection<br>not reported.<br>6/7 on JBI <sup>c</sup><br>One item not<br>applicable.                                    | Used a subset of the 2005–2008<br>National Surveys on Drug Use and<br>Health—1788 teens aged 12–17<br>who met at least one criterion<br>for prescription opiate abuse or<br>dependence. The study examined<br>various aspects including trends<br>in treatment as well as perceived<br>barriers to accessing treatment.                          | <b>Barriers:</b> only 4.2% of opiate dependent and 0.5%<br>of those with opiate abuse perceived a need for<br>treatment. Blacks were less likely to perceive a<br>need for treatment or to access it. Young people<br>perceive the cost of treatment, practical issues such<br>as transport and time, stigma and unsure about<br>how to access help are barriers to treatment.<br><b>Enablers:</b> having health insurance, living<br>in a city, criminal justice involvement and<br>polysubstance use increased odds of accessing<br>treatment. Talking to guardians about<br>SU increased the odds of accessing it. |
| Yonek et al. (2022)<br>USA | Mixed methods           | 10/15 or 66% on<br>the MMAT <sup>d</sup><br>Scored well on the qual<br>and quant individually<br>but lost marks due to<br>lack of integration of the<br>methods. The authors<br>said that it was a multi-<br>methods rather than<br>mixed methods study. | A medical record review of 1588<br>adolescents aged 12–17 who completed<br>a health assessment tool mandated<br>by Medicaid covering SU during a<br>well-child visit at two centres in San<br>Francisco. Twelve semi-structured<br>interviews with practitioners explored<br>the implementation of SBIRT<br>including barriers and facilitators. | <b>Barriers:</b> lack of time, lack of knowledge on screening<br>and treatment, unclear care pathways, lack of privacy<br>to conduct screens confidentiality and a lack of<br>treatment services were the barriers identified.<br><b>Enablers:</b> practitioners favour the use of technology-<br>based tools to facilitate screens and to support<br>decision-making and referral. Providers see all visits<br>as an opportunity to address a range of psychosocial<br>issues including mental health and SU.                                                                                                        |

Note: Studies in bold objectively measured factors associated with referral to treatment.

Abbreviations: GP, general practitioner; JBI, Joanna Briggs Institute; RCT, randomised controlled trial; SBIRT, screening, brief interventions, and referral to treatment; SU, substance use.

<sup>a</sup>JBI Checklist for Qualitative Research.

<sup>b</sup>Quality Assessment Checklist for Survey Studies in Psychology (Q-SSP).

<sup>c</sup>JBI Appraisal Checklist for Analytical Cross-Sectional Studies.

<sup>d</sup>Mixed-Methods Appraisal Tool (MMAT).

<sup>e</sup>JBI Checklist for Quasi-Experiment Studies.

<sup>f</sup>JBI Checklist for Case-Control Studies.

<sup>g</sup>JBI Checklist for Randomised Controlled Trials.

**TABLE 4** | Study quality.

| Study                          | Joanna Briggs Institute | Mixed-methods appraisal tool | Quality of survey studies in psychology |
|--------------------------------|-------------------------|------------------------------|-----------------------------------------|
| Acevedo et al. (2020)          | 7/10                    |                              |                                         |
| Alayan et al. (2021)           | 4/8                     |                              | 75%                                     |
| Ali et al. (2022)              |                         | 46.6%                        |                                         |
| Belenko et al. (2022)          | 8/13                    |                              |                                         |
| Berridge et al. (2018)         | 8/10                    |                              |                                         |
| Breda (2005)                   | 7/8                     |                              |                                         |
| Breda & Heflinger (2004)       | 5/7                     |                              | 42%                                     |
| Bukstein et al. (2005)         | 5/8                     |                              |                                         |
| Carney et al. (2021)           | 9/10                    |                              |                                         |
| Cheetham et al. (2019)         | 7/8                     |                              | 68%                                     |
| Cheng & Lo (2010)              | 3/8                     |                              | 44%                                     |
| Curtis et al. (2014)           | 4/5                     |                              |                                         |
| Elkington et al. (2020)        | 8/10                    |                              |                                         |
| Elliott & Larson (2004)        |                         | 80%                          |                                         |
| Fortin et al. (2022)           | 7/8                     |                              | 80%                                     |
| Harris et al. (2016)           | 4/6                     |                              | 72%                                     |
| Hunter et al. (2014)           | 8/9                     |                              |                                         |
| Kristman-Valente et al. (2022) | 3/10                    |                              |                                         |
| Kusiak & Johnson (2024)        | 8/8                     |                              | 84%                                     |
| Levy et al. (2020)             | 2/6                     |                              | 73%                                     |
| Lo & Cheng (2013)              | 5/7                     |                              | 72%                                     |
| Lubman et al. (2017)           | 5/7                     |                              | 58%                                     |
| Lubman et al. (2018)           | 5/6                     |                              |                                         |
| Mensing et al. (2006)          | 8/8                     |                              | 50%                                     |
| Monico et al. (2021)           | 5/10                    |                              |                                         |
| O'Brien & Hudson-Breen (2023)  | 10/10                   |                              |                                         |
| Pullman & Heflinger (2009)     | 10/10                   |                              |                                         |
| Stanhope et al. (2018)         |                         | 73%                          |                                         |
| Sterling et al. (2017)         | 10/11                   |                              |                                         |
| Stern et al. (2007)            | 7/10                    |                              |                                         |
| Wu et al. (2011)               | 6/7                     |                              | 79%                                     |
| Yonek et al. (2022)            |                         | 66%                          |                                         |

Note: Green indicates studies scoring >70%. Red indicates studies scoring below 70%. Orange indicates studies that scored below 70% on one tool and >70% on the other.

tended to normalise and minimise SU (Acevedo et al. 2020; Ali et al. 2022; Elkington et al. 2020; Kristman-Valente et al. 2022). Interestingly, the one study which statistically examined this found that parents who attended SUT were more

likely to have their children access treatment which could be related to higher rates of SUD in this population or the parents' experience of treatment may normalise accessing such services (Cheng and Lo 2010).

**TABLE 5** | Summary of barriers and enablers.

| Barriers                                                                                       | Enablers                                         |
|------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Individual factors                                                                             |                                                  |
| • Ethnic minority                                                                              | • Male gender                                    |
| • Lack of insight or poor motivation                                                           | • Polysubstance use                              |
| • Cannabis use alone                                                                           | • Clinical Impairment                            |
| Societal factors                                                                               |                                                  |
| • Normalisation of substance-use (SU)                                                          | • Parental support                               |
| • Stigma                                                                                       |                                                  |
| • Parents unable to get time of work or childcare                                              |                                                  |
| Gateway providers                                                                              |                                                  |
| • Concerns about confidentiality/telling parents                                               | • Approachability of staff                       |
| • Lack of time                                                                                 | • Information on services available              |
| • Cost of carrying out assessment                                                              | • Speaking to adolescents alone                  |
| • Rarely identify SU problems                                                                  | • Assessment and intervention in schools         |
| • Lack of adolescent honesty                                                                   | • Criminal justice involvement                   |
| • Referrals being directed to social services or mental health services instead of SU services |                                                  |
| Treatment service factors                                                                      |                                                  |
| • No service available/lack of awareness                                                       | • Treatment being local and accessible           |
| • Cost of treatment/insurance cover                                                            | • Flexibility around missed or late appointments |
| • No smoking policies                                                                          | • Staff from ethnic minorities                   |
| • Treatment with adults                                                                        | • Interpreters available                         |
| • Services not perceived as effective                                                          |                                                  |

It has been suggested that normalisation of SU presents a challenge to adolescents recognising their SU problem (Ali et al. 2022; Carney et al. 2021; Elkington et al. 2020). In Canada, SUT providers described contradictory assertions that cannabis and alcohol are becoming normalised leading to increased use while at the same time, their use is stigmatised, deterring young people from seeking help (Ali et al. 2022). Two studies specifically identified cannabis legalisation as a barrier to adolescents recognising cannabis harms (Ali et al. 2022; Stanhope et al. 2018). Supporting this assertion are findings from Washington State, where cannabis is legal, where primary care doctors reported that one of the main barriers to screening for cannabis use in adolescents was ambivalence from parents, young people and doctors about whether cannabis was worth being concerned about (Kristman-Valente et al. 2022). Eight studies discussed stigma as a barrier to accessing treatment which is supported by adolescents' reluctance in seeking help for fear of punishment, anger or being judged (Berridge et al. 2018; Stern et al. 2007). Even teens who recognise they need treatment indicated not wanting others to find out (22%) and others having negative opinions of them (22%) as reasons not to access treatment (Wu et al. 2011). Teens in Australia perceived peers with alcohol problems as more dangerous and weaker compared to those with depression

(Cheetham et al. 2019; Lubman et al. 2017). Studies indicate that stigma regarding SU makes teens (Elliott and Larson 2004) and parents (Elkington et al. 2020) less likely to access SU treatment.

### 4.3 | Gateway Providers

The term 'gateway providers' has been used to describe the adults who direct a young person to services (Stiffman, Pescosolido, and Cabassa 2004). While many gateway providers may be formal referrers to treatment services, such as medical practitioners or probation officers, many more, such as youth workers, teachers and family members, provide informal advice and encouragement to young people which may direct them towards treatment. The gateway provider's knowledge of and attitudes towards the young person's SU and SUT services can be instrumental in getting the young person into treatment. This review identified three professional categories of gateway providers to adolescent SUT: medical, educational and criminal justice professionals. This section will discuss these three groups in turn but there are several topics that are applicable to all of them.

The approachability of staff is something that adolescents (Acevedo et al. 2020; Berridge et al. 2018) and parents (Carney et al. 2021; Stern et al. 2007) have identified as facilitators. Various factors affect how approachable people are perceived by adolescents including feeling judged (Stern et al. 2007) and how comfortable they feel talking to that person about SU (Acevedo et al. 2020). Approachability is inextricably linked with confidentiality which was discussed in 10 articles. Adolescents worry about how people will respond if they admitted to SU, including their family telling others (Berridge et al. 2018) and teachers or doctors notifying their parents (Berridge et al. 2018; Elliott and Larson 2004; Stern et al. 2007). Parents appear happy for professionals to discuss SU with their children and accept confidentiality as part of this (Carney et al. 2021; Stern et al. 2007). Confidentiality can be challenging as parents usually accompany their teen to medical appointments and professionals are unsure of the legal boundaries to confidentiality (Levy et al. 2020; Monico et al. 2021; Stanhope et al. 2018; Stern et al. 2007; Yonek et al. 2022). An additional concern is whether SBIRT or other SU interventions may appear on an insurance claim form, inadvertently breaching confidentiality (Kristman-Valente et al. 2022).

#### 4.3.1 | Medical

Healthcare professionals are vital to identifying and intervening in adolescent SU. A three-step model has been popularised over recent years consisting of screening, brief interventions and referral to treatment (SBIRT). Approaches to facilitate SBIRT include completing the screen prior to meeting the doctor and having a specialist available to complete brief interventions (Monico et al. 2021; Yonek et al. 2022). Health providers appear ambivalent about whether screening is important, particularly for substances that are seen as more acceptable such as cannabis (Kristman-Valente et al. 2022). Time to complete SBIRT is a

barrier (Kristman-Valente et al. 2022; Monico et al. 2021) and a handoff to another professional provides an opportunity for the adolescent to decline further participation (Monico et al. 2021). Three US studies on SBIRT implementation noted reimbursement for SBIRT can be complicated and act as a barrier (Curtis, McLellan, and Gabellini 2014; Kristman-Valente et al. 2022; Stanhope et al. 2018).

Medical practitioners report rarely seeing 'kids with full on addiction' (Yonek et al. 2022, 5) and are less likely to refer to SUT without a concurrent psychological emergency (Monico et al. 2021). In one study, just over 50% of primary care staff referred youth, with identified SU, to mental health services or a social worker and only 3.1% referred to specialist SUT (Alayan et al. 2021). While behavioural health clinicians make fewer referrals to SUT compared to paediatricians (13.9% vs. 21.6%), they had nearly four times the rate of initiation to treatment (Sterling et al. 2017). Training in SBIRT skills (Stanhope et al. 2018; Yonek et al. 2022) and an online resource of where to refer (Yonek et al. 2022) are recommended as approaches to facilitate better SBIRT implementation and therefore referrals to treatment. A survey of teenagers in France found that they reported positive experiences about talking to their family doctors about their SU but those with more SU were less comfortable and were worried about their doctor telling their parents (Fortin et al. 2022).

#### 4.3.2 | Educational

As young people remain in education until approximately age 16 in most Western countries, schools are frequently seen as ideal locations to identify those with SU issues. However, providing healthcare interventions within an educational setting is not without its challenges. SUT providers suggested training teachers to engage with students regarding SU and providing outreach to schools as possible ways of facilitating treatment engagement (Ali et al. 2022) while adolescents prefer to discuss SU with someone who has expertise and do not perceive teachers as having such expertise (Berridge et al. 2018). Compared to depression, students reported that they were less likely to encourage peers to seek help for alcohol from a teacher (36.1% vs. 59.3%) or a school counsellor (72.8% vs. 81.1%) even though school counsellors were the most endorsed help source for alcohol (Lubman et al. 2017). Addressing SU in school-based health centres has similar challenges to medical clinics, including concerns about time, confidentiality, students not being honest or thinking their use was unproblematic, and a lack of knowledge or availability of adolescent treatment facilities (Harris et al. 2016). A school-based program to increase help-seeking among teens for mental health and SU problems succeeded in increasing intentions to seek help from SU professionals and school counsellors, but intentions to seek help from teachers decreased (Berridge et al. 2018). When SBIRT was trialled in schools, they appear to identify more SU than paper-based surveys and <1% refused a brief intervention (Curtis, McLellan, and Gabellini 2014). Delivering cognitive behavioural interventions in schools was found to be more likely to engage females and adolescents earlier and with fewer psychosocial complications (Hunter, Godley, and Godley 2014). These findings suggest that those with SU problems can be identified earlier and successfully treated in schools.

#### 4.3.3 | Criminal Justice

Four of the studies specifically address the criminal justice context (Belenko et al. 2022; Breda 2005; Elkington et al. 2020; Pullmann and Heflinger 2009) and all were from the USA. However, other studies found external pressure to change SU increases motivation to change. The number of negative consequences of SU is the best predictor of incentive to change (Breda and Heflinger 2004). Police involvement increases the likelihood of attending treatment (Cheng and Lo 2010; Wu et al. 2011), and SU professionals perceive legal pressure as potentially helpful in accessing treatment (Acevedo et al. 2020) which has been supported by a large study (Belenko et al. 2022). Parents articulate how criminal justice involvement can be a useful opportunity to address SU as it provides an opportunity to discuss problems and perhaps seek help suggesting it can be a facilitator of treatment (Carney et al. 2021). However, parents and caregivers also express concern that in some instances the arrest leads to charges with no referral to treatment (Carney et al. 2021) or parents can disagree with the need for treatment (Elkington et al. 2020), which can both act as barriers to accessing treatment.

#### 4.4 | Treatment Service Factors

The cost of treatment is a significant barrier and includes additional costs such as time off work and transport costs (Acevedo et al. 2020; Alayan et al. 2021; Elkington et al. 2020; Elliott and Larson 2004; O'Brien and Hudson-Breen 2023). The cost barrier has been reported by parents (Carney et al. 2021; Elkington et al. 2020; O'Brien and Hudson-Breen 2023) and young people (Elliott and Larson 2004; Lubman et al. 2017). Seven studies, all from the USA, identified insurance coverage as a barrier to accessing treatment (Acevedo et al. 2020; Cheng and Lo 2010; Curtis, McLellan, and Gabellini 2014; Lo and Cheng 2013; Monico et al. 2021; Stanhope et al. 2018; Wu et al. 2011). Other practical issues can act as barriers including monolingualism and no smoking policies (Acevedo et al. 2020), parents' work or childcare schedules (Acevedo et al. 2020; Cheng and Lo 2010; Curtis, McLellan, and Gabellini 2014; Lo and Cheng 2013; Monico et al. 2021; Stanhope et al. 2018; Wu et al. 2011) and treatment not being available locally (Elliott and Larson 2004; Pullmann and Heflinger 2009; Stanhope et al. 2018; Yonek et al. 2022). Consequently, enablers to attendance include flexibility with lateness or missed appointments, having interpreters, and sending messages in between appointments to keep the adolescent engaged (Acevedo et al. 2020). Probation officers criticised some practices, such as treating adolescents alongside adults and parents being required to arrange the appointment (Elkington et al. 2020).

Those diagnosed with an SUD alone are less likely to access treatment (Cheng and Lo 2010) and primary care professionals often refer SU cases to social workers or mental health services (Alayan et al. 2021) leading one study on SBIRT to use referral to mental health or SU services as the outcome measure as 'families and paediatricians often prefer to have adolescent initially obtain care in psychiatry over addiction treatment, regardless of their symptoms' (Sterling et al. 2017, 50). Other barriers include professionals having no service available to refer adolescents to

(Alayan et al. 2021; Levy et al. 2020; Stanhope et al. 2018), unsure where to refer them to (Harris et al. 2016) or no clear care pathway from primary care to SU treatment (Yonek et al. 2022). Knowing how or where to refer or access appropriate treatment are barriers (Harris et al. 2016; Levy et al. 2020; Wu et al. 2011) and a training course to improve help seeking for SU appears to have modest effects on this (Berridge et al. 2018). A perception that services are unlikely to be helpful was also reported by several studies (Elkington et al. 2020; Elliott and Larson 2004; Harris et al. 2016; Wu et al. 2011). Parents in Canada reported that it was often difficult to identify appropriate treatment services and what services were available were fragmented, such as harm reduction, mental health and parent support being offered by different services (O'Brien and Hudson-Breen 2023).

As mentioned earlier, 11 studies objectively assessed factors associated with treatment referral or utilisation and so should be considered more robust. By far the strongest finding from these studies, which were all completed in the USA, is that white ethnicity is associated with increased referral to treatment, particularly by courts (Belenko et al. 2022; Breda 2005; Cheng and Lo 2010; Lo and Cheng 2013; Pullmann and Heflinger 2009; Sterling et al. 2017; Wu et al. 2011). Other factors strongly associated with accessing treatment include polydrug use (Bukstein et al. 2005; Wu et al. 2011), good parental support or relationship (Cheng and Lo 2010; Wu et al. 2011) and criminal justice involvement (Belenko et al. 2022; Cheng and Lo 2010; Wu et al. 2011).

## 5 | Discussion

The aim of this literature review was to examine the barriers and enablers of adolescents accessing SUT. Various individual, societal and service-level factors were identified along with factors related to specific gateway providers. Individual factors including being female and from an ethnicity minority appear to act as barriers while findings on age and ethnicity have mixed evidence. While gender appears to have mixed evidence regarding whether it is a barrier to accessing treatment or not, other evidence suggests it plays a role. For example, in Ireland, 7% of boys and 4.5% of girls are high-risk users of cannabis (The ESPAD Group 2020a), a rate one and a half times higher for boys. Yet, the rate of boys under 18s accessing cannabis treatment in Ireland is over five times greater than for girls (Health Research Board 2022). In the US, girls aged 12–17 have higher rates of SUD (10.0% vs. 7.1%) yet are less likely to receive treatment (0.3% vs. 0.4%) (SAMHSA 2022b). Moreover, when girls do access treatment, they present with more psychiatric and psychological comorbidities (Anderberg and Dahlberg 2018; Edokpolo et al. 2010; James, Smyth, and Apantaku-Olajide 2013). It therefore seems likely that males are more likely to access treatment and this gender disparity warrants further research.

Ethnicity appears to play a significant role in access to SUT. The finding that black offenders are less likely to be offered SUT by courts is mirrored in the adult population (Kan et al. 2023; Nicosia, MacDonald, and Arkes 2013; Sheeran and Heideman 2021). In Australia, under 18s from non-white ethnicities were less likely to be referred to mental health treatment by courts (Gaskin et al. 2022). Among adolescents, 11.4% with a past year SUD receive treatment but rates are significantly lower

for Black and Hispanic teens but higher for other ethnicities (Cummings, Wen, and Druss 2011). Counties with more Black, rural and uninsured residents are less likely to have treatment facilities (Cummings et al. 2014) suggesting treatment availability should be broadened. Culturally sensitive care, such as bilingual therapists, appears to improve outcomes (Steinka-Fry et al. 2017) but needs to be supported by schemes that address the cost barrier (Alegria et al. 2011).

Probably, the most pertinent individual-level barrier is the low level of problem recognition among under 18s, even when they have severe substance-related issues. For example, just over one in 10 opiate-dependent teens recognise, they need treatment (Wu et al. 2011). While low levels of problem recognition are common for clients with an SUD, adults are more likely to receive treatment than under 18s (SAMHSA 2022a).

Societal factors including lack of parental support, normalisation of SU and stigma all act as barriers. Concerns were raised that cannabis use is normalised, and meta-analysis suggests that legalisation of cannabis for recreational use, but not decriminalisation or medical use, is associated with increased use among young people (Melchior et al. 2019). This fits with Australian survey data which indicated that 4.2% of those who had not used cannabis would do so if it were made legal (Weatherburn et al. 2022) while analysis of last month cannabis use using ESPAD data found that changes in legal penalties for drug possession suggest laws have a deterrent effect (Smyth, Davey, and Keenan 2023). On the surface, this normalisation of substance use, and cannabis use in particular, appears at odds with the idea that stigma is a barrier to accessing treatment, but it is worth bearing in mind that in most cases, young people rarely seek treatment on their own and rarely see their SU as problematic. Several studies with parents indicate that their children were using substances for years before they became aware of it and parents typically search for more socially acceptable explanations (Choate 2011; Jackson and Mannix 2003). Reluctance to recognise their child has an SUD is understandable considering the evidence that parents experience a large degree of shame and embarrassment as a result (Groenewald and Bhana 2016; Smith and Estefan 2014; Usher, Jackson, and O'Brien 2007). Only 11% of parents would seek treatment for their adolescents' SU and this rises to a third when they perceive their child has a 'serious substance use problem' (Curtis et al. 2019, 180). It is therefore possible that normalisation tends to increase adolescent SU and subsequently, the need for treatment while also making them even less likely to perceive a need for treatment. At the same time, stigma acts as a barrier to their parents seeking help from treatment services. Parents face a myriad of difficult behaviours including aggression, running away and stealing (Groenewald and Bhana 2016; Usher, Jackson, and O'Brien 2007). Treatment programs that engage parents tend to produce larger effect sizes than those focusing on the adolescent alone (Kahyaoglu et al. 2021; Tanner-Smith, Wilson, and Lipsey 2013; Tanner-Smith et al. 2016) and have positive effects on parental mental health and functioning (Yuen and Toumbourou 2008).

As a result of lack of insight and motivation from the young person, and parents' difficulty identifying use and sourcing

treatment, young people rarely access treatment unless an adult, such as school and healthcare staff direct them towards it. The 'Gateway Provider Model' (GPM) describes how youth access to health services is typically via an intermediary (Gateway Provider) and the intermediary's knowledge of services available appears to influence access more than the young person's or professional's perception of the problem (Stiffman, Pescosolido, and Cabassa 2004). In line with the GPM, a common barrier in this review was ignorance regarding where or how to access SUT. Adolescents, parents and professionals all appear unsure of confidentiality boundaries regarding adolescent SU and clear information on confidentiality may encourage adolescents to discuss their SU concerns.

Most articles discussing medical professionals came from the US where professional and government bodies recommend SBIRT as part of routine SU care for adolescents (Levy et al. 2020; Monico et al. 2021; Stanhope et al. 2018; Sterling et al. 2017; Yonek et al. 2022). These articles regularly cite the guidelines from the American Academy of Paediatrics' Committee on Substance Use and Prevention (CSUP) which recommends paediatricians implement SBIRT practices routinely (CSUP 2016). Ironically, these guidelines state that there is insufficient evidence to support SBIRT's effectiveness with adolescents but recommend it due to its low cost and safety. This sentiment is contradicted by the findings here which suggest that time and cost were significant barriers to SBIRT implementation. Wilson et al. (2004) assessed medical care providers' ability to identify SUDs in teens and while the providers identified 1.9% of 14–18-year-olds met the criteria for substance abuse and none met the criteria for substance dependence the structured assessments found 9.4% met abuse and 6.8% met dependence criteria. Alternative approaches include targeting those who are starting to use substances but may not have developed a SUD (indicated prevention) or those who are more likely to develop an SUD due to some other risk factor (selective prevention). Children with various mental health problems and those in residential care are at increased risk of developing an SUD and so are recommended for selective prevention strategies (EMCDDA 2009). Sterling et al. (2017) hypothesised that their finding that behaviour health clinicians' referrals to specialist treatment were nearly four times as likely to initiate treatment compared to paediatrician referrals, may be due to clients either returning to the paediatrician for follow up care or feeling they got enough care from the paediatrician. However, a four-fold increase in treatment uptake appears significant particularly as the paediatrician made the referral suggesting they felt it was necessary. It may be related to behavioural health clinicians making less, and more selective referrals to treatment (13.9% vs. 21.6%) as well preparing their referents better for treatment.

The delivery of SBIRT within schools appears to facilitate early identification and access to services by young people with SU problems (Curtis, McLellan, and Gabellini 2014) and SUT increases school attendance (Engberg and Morral 2006). However, young peoples' perceptions that teachers lack expertise in SU, coupled with a fear they may disclose SU to parents, fosters reluctance to use them as resources. Yet, Lubman et al. (2017) found adolescents are more likely to seek help for alcohol use from school counsellors, suggesting that suitably qualified professionals improve access. Schools appear ideally placed

to identify substance-using students, but students have confidentiality concerns while teachers require clear protocols for managing substance-using teens. Involving the student body in co-producing SU protocols may enhance their engagement through developing trust, while employing SU outreach models and onsite counsellors to enhance avenues for access.

Criminal justice involvement appears to improve access to SUT for adolescents (Acevedo et al. 2020; Cheng and Lo 2010; Wu et al. 2011) which echoes the finding that negative consequences increase incentive to change SU (Breda and Heflinger 2004). Yet parents and adolescents report distrust of the criminal justice system and do not always see it as helpful (Carney et al. 2021; Elkington et al. 2020). Courts refer relatively few young people, particularly Black youths to SUT (Belenko et al. 2022; Breda 2005). Delaney et al. (2020) observed that 93.7% of adolescent probationers used cannabis in the previous year and over 90% of these met the criteria for cannabis use disorder. Improved connections between probation and healthcare providers are successful at getting more young offenders into treatment (Wasserman et al. 2009). An innovative approach taught an evidence-based intervention to POs and found that it improved their optimism and attitude towards working with adolescent SU (Rudes et al. 2021). Moreover, POs appeared to deliver the treatment as effectively as trained clinicians (Sheidow et al. 2020). These findings suggest that there are various approaches to improving the uptake of SUT by young offenders.

Treatment services barriers include lack of service availability and accessibility, knowledge of services, language barriers and treatment cost while services being local, client-centred, flexible and delivered by staff from the client's own ethnic group act as enablers. These findings about service-related barriers to attending SU service are remarkably similar to the barriers identified to attending youth mental health services (Anderson et al. 2017). In keeping with the GPM, it is important for potential referrers to be provided with clear decision-making aids that help them choose appropriate services and access routes (Stiffman, Pescosolido, and Cabassa 2004). The cost of services, particularly in North America, was a significant barrier but many countries provide SUT free through publicly funded models. In addition to the cost of treatment itself, there can be considerable costs to accessing treatment such as childcare, transport and time off work so providing SUT locally is vital. Some cost-effective methods to improve the uptake of adolescent SU and mental health service initial appointments include providing the initial appointment as soon as possible after referral, reminder texts, letters or calls and automatic rescheduling of missed appointments (Lefforge, Donohue, and Strada 2007). Another approach is an intensive motivational call prior to the first appointment and when the youth was included, as opposed to parent only, attendance improved from 60% to 89% (Donohue et al. 1999). Studies suggest that rather than relying on a single approach to improving uptake and engagement, services should utilise a variety of approaches (Dunne et al. 2017; Lefforge, Donohue, and Strada 2007). Furthermore, the development of youth-friendly services may improve uptake and involves having youth involved in service design, addressing privacy/confidentiality concerns, appropriate marketing of services,

having younger staff members as well as paying attention to the physical space (Hawke et al. 2019). The appropriateness of adolescents receiving treatment alongside adults should also be considered and not mixing adolescent clients with adults has been recommended as a key indicator of quality in treatment services (Cacciola et al. 2015). Further research ought to examine alternative models for delivering SUT in specialist clinics as this appears to be a barrier. Delivering SUT in mental health services is one option that is likely to be more acceptable as these are often the first services contacted in relation to adolescent SU. However, a recent systematic review of mental health nurses' attitudes towards drugs and alcohol indicates that many are unwilling to provide care and are pessimistic about its effectiveness (Merrick et al. 2022).

Finally, the barriers and enablers of accessing SUT in this review are similar to those identified for accessing CAMHS services (Anderson et al. 2017; Hansen et al. 2021; Radez et al. 2021). Anderson et al. (2017) identified various barriers including language barriers, availability of services, waiting time, inflexible services and cost of treatment. Radez et al. (2021) identified barriers and facilitators across four themes: (1) young person-related factors such as being unsure whether treatment was needed or wanting to solve the problem alone, (2) societal factors particularly stigma and embarrassment, (3) relationship factors with the professional including concerns about confidentiality and self-disclosure and (4) systemic and structural factors, such as time, transport and cost issues. Perhaps, the significant difference within the findings of this review is that young people rarely perceive they have an SU problem and so access requires an intermediary. Many of the methods to improve access mentioned by Anderson et al. (2017), such as more accessible locations, drop-in or easy-to-access services and various waitlist approaches are comparable to those recommended for SU.

## 6 | Strengths and Limitations

This review has several strengths including the use of a clear methodology and search terms which were used across six databases covering a 20-year range. Despite this, various limitations should also be noted. Grey and non-English language publications were excluded meaning some research may have been overlooked and this may explain why only one European study was identified. Few studies focused specifically on barriers and enablers to adolescent SUT attendance and often these ideas were discussed as part of a broader study. While all studies were quality appraised, the use of separate tools makes comparison between studies difficult. However, the advantage of including studies across various methodologies was a broader and more in-depth view of barriers and enablers of under 18s accessing treatment.

A final caution is that many of the barriers and enablers are not actually measured or assessed objectively but were reported in surveys or interviews. Accordingly, there are some contradictory findings such as parents and young people questioning the helpfulness of criminal justice services pressure to enter treatment while objective research indicated that such pressure appears to increase likelihood of entering treatment.

## 7 | Conclusion

This review provides an overview of the barriers and enablers of adolescents accessing SUT can be used in the development of services. Adolescents with an SUD, even a severe one, typically do not recognise a need for treatment. While services can endeavour to make their services more appealing, youth-friendly and accessible, most adolescents will only present for treatment once parents or other adults function as gateway providers and direct them towards it. Marginalised youth are even less likely to attend treatment. Parents and schools are key gateway providers as health and criminal justice professionals will typically meet fewer under 18s and often only once more significant SU problems emerge. Strong links between professionals and local SUT services facilitate referrals and organisational policies and protocols addressing confidentiality and referral pathways are required. To promote accessibility, services should be free, local and accessible. Further research ought to examine the best approach to delivering SU treatment, for example, should it be delivered in schools, health clinics or as part of mental health services? Perhaps, the most important conclusion is that adolescent SU is seriously undertreated, and services need to develop approaches to increasing attendance as adolescents are typically seasoned substance users before ever accessing treatment.

## 8 | Relevance for Clinical Practice

Substance use is common among teenagers and those who use substances are more likely to present with mental health problems. Young people who use substances are unlikely to identify their SU as a problem or seek specific SU help. Adults who encounter 12–17 years old, when most individuals commence substance use, therefore, need to be cognizant of the risk of SUD developing and address it accordingly. As young people with various psychiatric disorders are at increased risk of developing an SUD, adolescent mental health services are ideally placed to provide indicated prevention. Unfortunately, further research is required on how best to provide this (EMCDDA 2009).

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### Conflicts of Interest

The authors declare no conflicts of interest.

### Data Availability Statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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