

Review Article

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Adolescents' Participation in Drug Addiction Interventions, Individual Perceptions, and Attitudes towards Recovery: A Scoping Review

Anthony Ezerioha¹, Masoud Mohammadnezhad^{2*}

¹School of Allied Health and Social Care, Faculty of Health, Medicine and Social Care, Anglia Ruskin University, Cambridge, UK

²Faculty of Health, Education and Life Sciences, School of Nursing and Midwifery, Birmingham City University, Birmingham, UK

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*Correspondence:

*Dr. Masoud Mohammadnezhad, Faculty of Health, Education and Life Sciences, School of Nursing and Midwifery, Birmingham City University, Birmingham, UK.
Email: masraqo@hotmail.com

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Abstract

Introduction: Adolescents recovering from substance use problems face significant psycho-social challenges. These challenges can affect their recovery progress, overall well-being, and integration into the society. Due to paucity studies, this study aimed to identify the perceptions and attitude towards recovery among adolescents participating in drug addiction interventions.

Methods: This systematic review study applied a complete search of relevant databases, including Scopus, Embase, Cinahl, and PubMed/Medline using Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The search was limited to articles published in English language, between 2013 and 2023, and focused on adolescents drug addiction. Twelve articles were critically appraised using Critical Appraisal Skills Programme (CASP) for qualitative studies and Joanna Briggs Institute (JBI) tools. The results were synthesised using a thematic analysis.

Results: The findings identify that adolescents in addiction recovery face several challenges, including stigmatisation, social isolation, self-doubt, and difficulties accessing and maintaining treatment. The findings also point out that supportive relationships, culturally sensitive treatment approaches and interventions to combat self-stigma can play a critical role in promoting resilience and recovery for adolescents in recovery.

Conclusion: The comprehensive review brings us up to speed on the challenging experiences young people recovering from addiction in different addiction intervention go through, it underscores the importance of supportive relationships and encourages strengthening of interventions that mitigate against stigmatization.

Introduction

Adolescent is the period of life between childhood and adulthood, lasts from the ages of 10 to 19. It is a special time in human development and a crucial moment to establish the groundwork for long-term health¹. The definition of recovery from Substance Use Disorder (SUD) is contentious and is increasingly being defined as a process as opposed to an event², there is a dearth of research on the path from drug start to recovery that is recognised to be relevant to women, and young people³.

Addiction is defined as a recurrent, chronic condition characterised by compulsive drug seeking and use regardless of side effects. It is considered a disease of the brain because it alters the brain circuits responsible for reward, stress and self-control⁴. The earlier high school kids start smoking, the more likely it is that they will become regular smokers⁵.

Adolescence is a vital developmental era, and drug addiction in

teens have long-term consequences increasing the chance of ongoing drug use and addiction in adulthood⁶. The percentage of young people who had ever smoked went from 7% at the age of 11 to 56% at the age of 15, while current smoking increased from 3% at the age of 11 to 30% at the age of 15. Cannabis is the most popular psychoactive substance used by teenagers, in 2018, 4.7% of those between the ages of 15 and 16 reported taking it at least once⁷. The World Health Organisation (WHO) estimates that over 35 million people worldwide suffer from drug use problems, with a sizable proportion of these persons being between the ages of 15 and 24⁸.

More than 90% of adults with a SUD started using drugs or alcohol in their adolescent⁹ and earlier initiation of drug or alcohol use is associated with a higher lifetime risk of negative outcomes, such as increased psychological distress, difficulties in school, physical health problems and cognitive impairment¹⁰⁻¹³. SUDs in adolescents are usually treated with psychosocial approaches such as cognitive behavioural therapy, motivational interviewing, family-based treatment, and contingency management¹⁴⁻¹⁶.

In contrast to earlier drug policies, which aimed to increase treatment enrolment and retention rates^{17,18}, the current approach emphasizes providing comprehensive support to enable individuals view recovery as an achievable path out of dependency, moving beyond mere harm reduction¹⁷⁻¹⁹. Involving teenagers in drug addiction treatment has been shown to improve their individual recovery experiences. Interventions for drug addiction can help teenagers address underlying mental health problems²⁰ and build better coping skills and a higher sense of self-worth²¹. Improvements in social behaviour, self-esteem and mental health have been documented in several studies. According to previous studies adolescents who participated in Cognitive Behavioural Therapy (CBT) reported notably reduced levels of depression and anxiety symptoms in comparison to the control group²².

Despite numerous studies on drug addiction interventions, there is limited research on how participation in various types of interventions specifically shapes adolescents' personal experiences, towards addiction and recovery. This gap highlights the need for a deeper understanding of the subjective impact of different intervention strategies on young individuals. This study is trying to answer the question of "How do adolescents' participation in diverse drug addiction interventions influence their individual experiences, perceptions, and attitudes towards addiction and recovery?". This study also aimed to examine the contextual factors that influence the implementation and success of adolescent drug dependence interventions, also to identify factors mitigating against full recovery of young people from addiction, lastly, to understand from the point of view of these adolescent what drug addiction is to them.

Methodology

Study Design

To obtain a more comprehensive, nuanced and generalisable understanding of the study topic, a qualitative scoping review design was employed using Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) statement guidelines^{23,24}. This method of review reduces bias, and also provide an impartial appraisal of the body of scientific literature by carefully identifying, selecting, and evaluating relevant research²⁴.

Search Strategy

To identify relevant studies, 4 databases were used including Scopus, Embase, Cinahl, and PubMed/Medline. They were selected because they are the most frequently used databases by other systematic review studies in the field of adolescents addiction as well as their accessibility for the researchers. To maximise the chance or achieving all relevant studies, comprehensive Keywords and Medical Subject Headings (MeSH) terms were used in this study include; (adolescents OR teenagers OR youths OR "young adults") AND OR ("substance use" OR addiction) OR "rehabilitation programme" OR "therapeutic intervention" OR "drug addiction interventions") AND (perception OR "personal experience" OR attitude). These keywords were combined using Boolean AND and OR. To evaluate the research eligibility, the Population Intervention Comparison Outcome Study type (PICOS) paradigm is used (Table 1). The search was limited to articles published in English language, between 2013 and 2023, and focused on adolescents. All study designs were considered and this study was not limited to a particular geographical setting. For the interventional studies, behavioural, and psychological approaches that were used to changes

Table 1: The PICOS criteria

Population	Adolescents Teenagers Youths Young adults
Intervention	Drug addiction interventions Substance abuse interventions Addiction treatment Rehabilitation programs Therapeutic interventions
Comparison	Pre-post intervention Before-after intervention Intervention outcomes
Outcome	Personal experiences Perceptions Attitudes Perspectives
Study design	Qualitative studies Quantitative studies Mixed method designs

addiction among adolescents were used. Other published systematic review studies, studies without full text, and those focused on clinical intervention were excluded.

Study Selection

In total, 1529 studies were identified prior to screening, using RefWorks bibliography, 178 duplicates were removed. The defined criteria were used to scan titles, as a result irrelevant titles were removed, 249 articles were categorised as irrelevant. Based on the information contained in the abstract and title, 70 articles were selected as potentially meeting the criteria. The full text was read to determine whether the articles met all specified inclusion criteria and did not violate any exclusion criteria. Twelve publications were declared eligible and subjected to further analysis (Figure 1). The bibliography and reference list of remained studies were checked to find if there is any study that can be added to the list of identified studies. To reduce selection bias and increase the study rigor, all the study selection process was re-checked and evaluated by the second researcher.

Quality Appraisal

To identify high quality research, assess the relevance of the study to specific needs, identify biases and limitations, make informed decisions and to improve the quality of the research, Critical Appraisal Skills Programme (CASP) for qualitative studies and Joanna Briggs Institute (JBI) for cross sectional studies was used as an appraisal tool, to evaluate the quality of the selected studies. CASP is a widely recognised tool for assessing the methodological rigour and validity of research studies²⁵. The assessment process involved two independent reviewers who applied the CASP checklist to each selected paper and resolved any discrepancies through discussion.

Data Extraction

Data were systematically extracted from the remaining 12 articles, including information on authorship, publication year, study design, participant demographics, key finding, and limitations. After thorough evaluation, 12 articles met all inclusion criteria and were included in the final systematic review (Table 2).

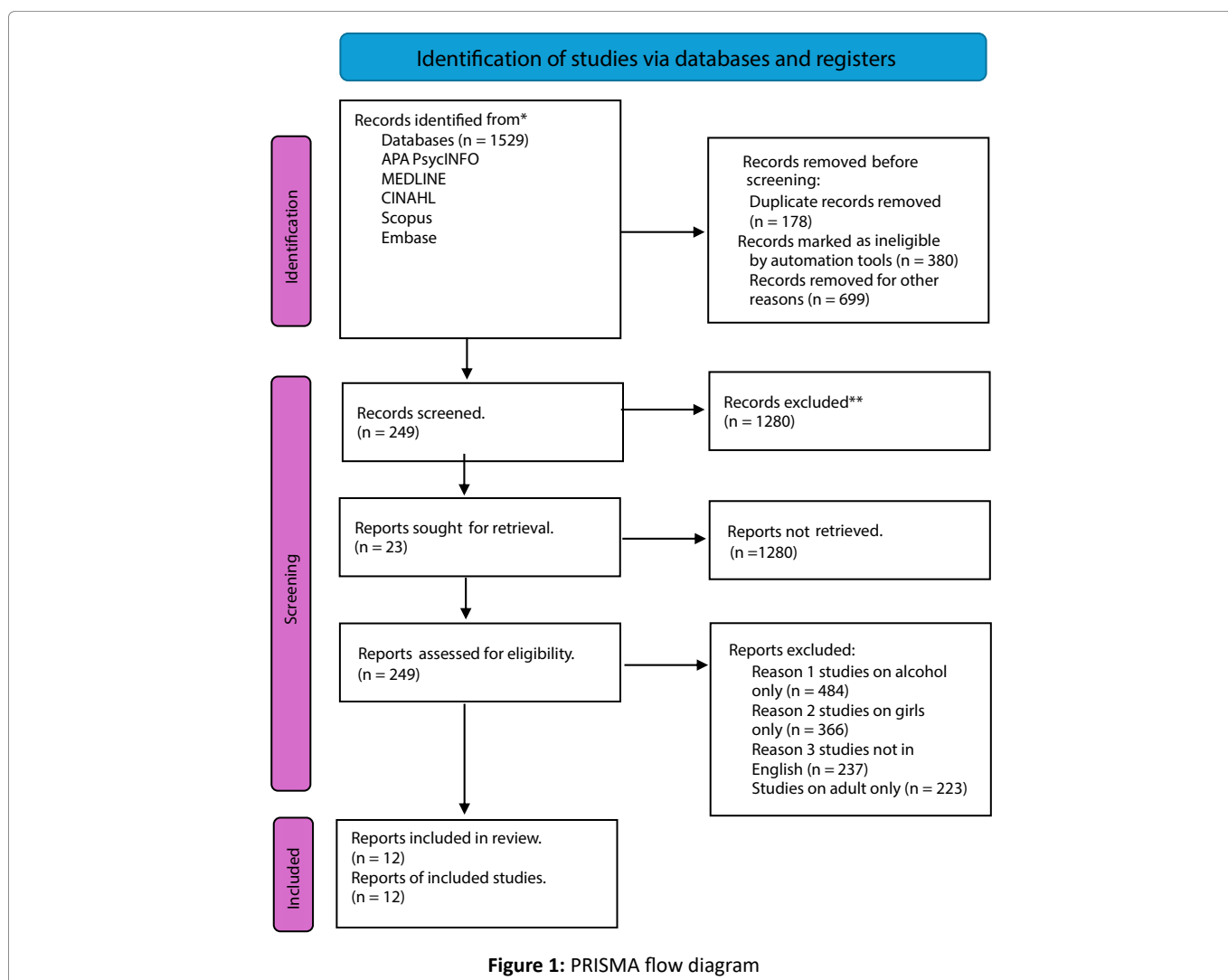


Table 2: Sample Data extraction table

Reference	Study design	Sample population age and country	Aim	Key findings	Limitations
²⁶ Joe, et al. 2015	Qualitative	Adolescent USA	Recovery among adolescents: Models for post-treatment gains in drug abuse treatments.	Better post-treatment outcomes may be facilitated by therapeutic interactions, particularly those with counsellors, and motivation for treatment is a critical component in the development of stronger relationships with peers and counsellors. Moreover, at follow-up, patients who had received extended therapy had lower rates of illicit substance and marijuana usage.	Its lack of generalizability to other treatment modalities and its concentration on a single modality (outpatient drug-free treatment).
²⁷ Hughes, Colbert, Baugh. 2020	Qualitative	Young adults 18-15 years USA	The purpose of this is to gather information about past interactions both positive and negative between young adults and mental health providers in order to inform the creation of an innovative programme for their mental health.	The findings suggest that young adults desire mental healthcare that is holistic, personalized, and empowering.	Young adults in these focus groups were homogeneous in their demographic characteristics and are unlikely to represent the experiences and preferences of demographically and socioeconomically diverse young adults.
²⁸ Madill, et al. 2022	Qualitative	Youths 19-24 years India	To understand the pathways to recovery of youth in Assam who have suffered Substance Use Disorder (SUD).	The model enhances psycho-socio-cultural insights into the experience of risk and recovery, and informs prevention and treatment for youth substance misuse in Assam.	The study's focus on a single geographical location, Assam, India and The study's small sample size is a weakness.
²⁹ Finch, et al. 2018	Quasi-experimental design	Adolescent	To investigate the impact of attending Recovery High School (RHS) on the academic and drug-use outcomes of teenagers receiving treatment for substance use disorders six months after being recruited for the research.	The findings showed that at the 6-month follow-up, adolescents attending RHSs had significantly lower levels of marijuana use ($d = -0.51, p = .034$) and absenteeism from school ($d = -0.56, p = .028$), and were significantly more likely to report being completely abstinent from alcohol, marijuana, and other drugs ($OR = 4.36, p = .026$).	One of the study's limitations is its quasi-experimental methodology, which was found to be more practical and ecologically sound than an experimental one with a limited sample size and random assignment.
³⁰ Kelly, et al. 2014	Longitudinal design	Youths	The principal aim of this study, therefore, was to test whether one of the key mechanisms through which Alcoholics Anonymous AA and Narcotics Anonymous NA has been shown to work in adult samples (i.e., via social network changes) is similar for young adults.	The findings suggest that social networks play an important role in addiction recovery, and that changes in social networks can mediate the effects of 12-step participation.	The study's reliance on self-reported data is a weakness. Self-reported data can be inaccurate, and the authors did not use any measures to verify the accuracy of the participants' reports.

³¹ Haug, et al. 2017	Qualitative	Adolescent 16-20 years Switzerland	The purpose of this study was to evaluate the initial efficacy and acceptability of a customised mobile phone-based life skills training programme for vocational school students.	According to the results, the Ready4life interventional method has a high degree of acceptability and shows promise for success. It can be inexpensively and readily applied.	The follow-up assessment was only completed by 50% of research participants, which may have influenced programme assessments and effectiveness outcomes.
³² Hreish, et al. 2017	Cross-sectional design	Young adults 18 and 24 years Palestine	The purpose of this study was to investigate respondents' opinions on peers in Palestine who are recovering from drug abuse and their social reintegration.	The study's findings indicate that the prevalent unfavourable perceptions about social reintegration may expose persons in recovery from addiction in Palestine to social rejection from their families, communities, and workplaces.	The study's weaknesses include its cross-sectional design, its reliance on self-reported data, and its limited generalizability to other populations.
³³ Frank, et al. 2021	Qualitative design	Young adults 14-25 years Denmark and the UK	The article describes young people's perceptions of and experiences with assistance and support during drug-reduction initiatives.	A better balance between fostering individual resilience and offering relevant, timely, and sufficient assistance in a "resilience-building" environment is made possible by the insights obtained, which point to the need for system and service modifications.	The study's limitations include its narrow emphasis on a particular group (young people in coercive circumstances) and its small sample size.
³⁴ Bahl, et al. 2022	Qualitative design	Young adults 18-23 years Norway	The purpose of this study is to provide knowledge about groups, community, belonging and recovery among emerging adults with substance use problems at particular risk of social marginalisation.	The findings show that emerging adults belong to several communities, which are sources of different elements promoting and challenging their recovery from substance use.	The authors also did not address potential limitations related to their qualitative design, such as the potential for bias in data collection and analysis.
³⁵ Gonzales, et al. 2011	Cross-sectional design	Youths 12-24 years	To explore how youth contextualize substance use problems and recovery, in general and for themselves, in relation to the commonly accepted chronicity framework.	The research indicates that programmes ought to exercise more caution when imposing the recovery rhetoric—which now supports abstinence and 12-step involvement—on young people. While highlighting the importance of post-treatment recovery support, providers should not convey the idea that this support must last a lifetime.	The results cannot be overgeneralized to treatment involved youth in other treatment settings.
³⁶ Blyth, et al. 2023	Qualitative design	Youths 17-19 years	This research explores young people's perspectives of the stigma associated with alcohol and other drug use within the framework of their social identities.	Results imply that young people may both internalise and perceive stigma from others in their social networks, which might obstruct their ability to form positive social identities and participate in recovery-oriented activities.	The study's limited sample size restricts how far the results may be applied. The fact that the study only looks at one nation—the United States—further restricts how broadly the conclusions can be applied.
³⁷ Whelshula, et al. 2021	Qualitative design	Adolescents Native American adolescents	This study sought to understand how six Inland Northwest tribal communities' community stakeholders saw the needs and strengths already in place for assisting adolescents in recovery.	The study uses a community-based participatory research (CBPR) approach, which engages community members in all aspects of the research process.	The study does not address potential limitations related to its CBPR approach, such as the potential for selection bias and the potential for influence by community leaders.

Synthesis Result/Data Analysis

Thematic analysis was used to emerging themes. The perceptions and attitudes of adolescents towards addiction intervention and its recovery were extracted and were coded line-by-line. Following that, the descriptive themes which were linked to the included studies were generated and finally the final analytical themes were developed to go beyond the results of the studies for further interpretations³⁸.

Results

Study Characteristics

Twelve studies were used to synthesize the themes generated in this research work, nine studies were qualitative, one study were longitudinal, two were cross-sectional and one study quasi-experimental study design. Countries of origin of the included studies are USA, six studies, India, one study, Switzerland, one study, Palestine, one study, Denmark and United Kingdom, one study and Norway, one study. The year range of these studies is between 2011 to 2023.

Themes Identified

Four main themes were discovered including how stigma affects adolescents in recovery, importance of supportive relationship in recovery, personalised culturally and religiously sensitive treatment methods and the evolving interaction of requirements, perception and utilization. Themes are explained below:

Theme 1: How stigma affects adolescents in recovery

Two papers out of the twelve papers included in this research was used to generate this theme. For young people in recovery, stigma, both internalised and externalised, is a major obstacle, the following reviewed articles supports this finding^{32,36}. Adopting negative stereotypes and attitudes about themselves or internalising stigmatization from the community or from peers can lead to feelings of worthlessness, hopelessness, and humiliation, which can stifle motivation to seek for treatment and eventual recovery. Adolescents in recovery may experience increased isolation due to external stigmatisation, which manifests itself in the form of prejudice, discrimination, and exclusion. This can exacerbate feelings of isolation and hinder social integration³². Myths about SUD can be dispelled and make it more likely that young people and their families will access supportive community services. Over the course of a person's rehabilitation, the "gossip" in the community can change from negative to positive³².

Theme 2: The importance of supportive relationships in recovery

For this theme, three out of 12 papers included in

this report were used to generate it. In order to help adolescents develop resilience and recovery, supportive interactions with peers, mentors, and family members are essential^{26,30,34}. These studies show a consistent link between building supportive relationship with family, society, peers, and recovery. These healthy relationships foster a feeling of acceptance, understanding, and sense of belonging that can counteract the damaging effects of stigma and foster high self-esteem. Teenagers in recovery may benefit from supportive interactions by overcoming unfavourable preconceptions and cultivating a more positive self-image^{26,30}.

Theme 3: Personalised culturally, and religiously sensitive treatment methods

This theme points to the need for an intervention that is culturally and religiously incorporated. Adolescents in recovery can have very different experiences and views depending on cultural and spiritual influences the studies below give insight into cultural and religious sensitive intervention^{27,28,37}. The unique needs of this community can be better served with treatment methods that are sensitive to cultural differences and integrate relevant spiritual practises. Findings points to incorporation of customs and practises from the patient's culture into the recovery process could strengthen the bond between the patient, service provider and their culture²⁸. Feeling validated and being listened seems to be the basis for other concepts, including connectivity, full information, consent, and inclusion²⁷.

Theme 4: The evolving interaction of treatment requirements, perception, and utilisation

Treatment needs, beliefs and utilisation in drug-treated teenagers appear to be interrelated according to the publications reviewed. This finding is highlighted by these studies^{29,31,33,35}. Thus, adjustments to one variable may affect adjustments to another. A comprehensive treatment approach that addresses the many needs of adolescents in recovery is necessary, as demonstrated by the complicated interplay of these components. Therapy should address the underlying psychological and social issues that may exacerbate substance use and impede recovery, rather than focusing solely on specific substance use behaviours.

Discussion

The thematic analysis of the evaluated papers highlights the importance of tackling stigma, maintaining support networks, tailoring treatment to the individual and cultural needs of each patient and offering treatment to overcome self-stigma. Adolescents in recovery can benefit from a more effective and encouraging treatment environment that supports their resilience, well-being, and sustainable recovery outcomes when practitioners take a holistic, culturally sensitive and individualised approach towards addiction treatment.

Adolescence is a critical developmental period associated with significant changes in brain structure and function and exposure to various environmental and social influences. A total of twelve studies were included in this systematic review. It was found that adolescents in recovery face issues such as stigmatisation, lack of support networks and treatment modalities that adapt to their cultural and spiritual needs, and that there is also a lack of interventions that are appropriate for young people.

Social identity and its impact on the healing process are two important themes that emerged in this study. Research participants' complicated expression of the interplay between their self-perception and society's expectations sheds light on the importance of a non-judgemental and supportive environment for effective recovery^{31,35}. The study also explores the range of stigmatisation experienced by these teenagers, from relationships with others to general attitudes in the community. A notable aspect of this study is the identification of specific challenges that young adults in Palestine face when interacting with peers with substance use problems. Cultural factors, social norms and the availability of resources play a crucial role in shaping attitudes and responses. The study emphasises the importance of tailoring interventions to the local context and considering the specific socio-cultural nuances that influence perceptions and behaviour related to substance use.

The results of this study also determined a variety of factors that impact youth rehabilitation, including social networks, coercive environments, and community impact^{25,29,33}. The focus that Kelly et al. (2014)²⁹ place on social networks emphasises the importance of interpersonal connections in the healing process. The findings lead to a better understanding of how social relationships change after therapy and influence participation in a 12-step programme. By looking at the larger contextual elements that impact the recovery experiences of emerging adults the Bahl et al. (2022)³³ findings expand the focus on the impact of community. This study sheds light on how social views and community support can help or hinder individual recovery processes. The inclusion of these findings could lead to a more comprehensive knowledge of the complex nature of addiction recovery in young people, which could support the development of targeted therapies that considered the dynamic interaction social, environmental, and individual element.

Other studies provided an insight into the experiences of young adults and adolescents in seeking mental health care and recovering from addiction in different cultural contexts^{26,27,36}. The study conducted by Hughes, Colbert and Baugh in 2020 in the US emphasises the importance of treating the mentally ill as whole, complex individuals and

emphasises a holistic treatment strategy²⁷. The ongoing discussion about person-centred treatments in the field of mental health is favoured by these findings.

The article titled "The Pathways to Recovery approach in Assam, India", by Madill et al. (2022)²⁸, adds a more cultural perspective to the conversation. Culturally appropriate approaches to adolescent substance abuse treatment can be informed by knowledge of the particular pathways to recovery in the area. Combining this data provides a comprehensive understanding of young people's rehabilitation experiences by considering individual, cultural and environmental aspects. It emphasises the importance of tailored and culturally aware approaches to addiction treatment and mental health for a range of communities.

Other findings shed light on different facets of adolescents' and young adults' perspectives on intervention, recovery support and prevention of drug use^{28,30,32,34}. The study conducted by Haug et al. (2017) emphasises how technology can be used to provide youth-specific, evidence-based drug prevention programmes²⁷. Similarly, a study conducted by Madill et al. (2022)²⁸ on recovery high schools emphasises the value of learning environments for people recovering from substance use disorders and highlights the potential impact of a positive school climate.

These findings are consistent with the report of, Finch, (2018)²⁹, and Lang, (2017)³⁸ which points that Alcohol and Other Drug (AOD) use disorders are highly stigmatised diseases. When a person or group is stigmatised, this can lead to social exclusion, discrimination, and unfavourable consequences such as lower self-esteem, identity-related stress and poorer health³⁹⁻⁴³. Furthermore, Luoma, (2007)⁴⁴, Pescosolido, (2015)⁴⁵ and Betty ford institute, (2007)⁴⁶ argues that people recovering from a substance abuse disorder or people with an AOD use disorder may see, feel and internalise stigma.

Research on recovery from problematic substance use has shown the importance of supportive relationship, social connection and a sense of community and citizenship^{29,33,47,48,49-53}.

Conclusion

This systematic review analysed the experiences and needs of adolescents in recovery from substance use problems. Substance abuse can have serious detrimental effects on an adolescent's physical, mental, and social health during this crucial stage of development. Interventions for drug addiction can be very helpful in assisting teens with their substance use disorders and long-term recovery. According to the report, participating in drug addiction interventions can lead to good personal experiences, such as strengthening relationships, successful intervention

techniques and a sense of self-efficacy and empowerment. Adolescents in recovery should be routinely screened and assessed for stigma, and psychoeducation should be provided about the impact of stigma on recovery. By promoting connection, acceptance, and understanding, you can help youth in recovery build supportive relationships with peers, families, and other adults. Provide funding for studies that examine the needs and experiences of young people recovering from substance abuse.

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