Stigma Towards People Living with Co-occurring Schizophrenia Spectrum and Substance Use Disorders: A Scoping Review

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ORIGINAL ARTICLE

Stigma Towards People Living with Co-occurring Schizophrenia Spectrum and Substance Use Disorders: A Scoping Review

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Abstract
This scoping review mapped the extant research literature examining stigma towards people living with co-occurring schizophrenia spectrum and substance use disorders (SZSUD). Five online databases were searched for research published before September 2023. Eighteen relevant studies were identified, including six from the perspective of people living with SZSUD and 12 exploring public stigma towards the conditions. The majority of studies ($n = 11$) explored stigma from care providers, including healthcare, mental healthcare, and addiction clinicians and carers. In general, responses to people living with SZSUD were more negative than towards people living with either condition alone. People living with SZSUD identified numerous challenges associated with experienced, anticipated, internalised, and perceived stigma. Additional research is required to determine the extent and scope of the stigma faced by people living with SZSUD and how stigma manifests in other types of interpersonal relationships. Implications and additional recommendations for future research are discussed.

Keywords Stigma · Co-occurring disorders · Dual diagnosis · Schizophrenia spectrum disorders · Substance use disorder · Scoping review

Introduction

Schizophrenia spectrum disorders (SZ) and substance use disorders (SUD) are two of the most stigmatised mental health conditions (Crisp et al., 2005; Perry et al., 2020). Previous reviews have consistently found that people who experience SZ and SUD are regarded as being more dangerous, unpredictable, and less competent than people who experience

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other types of mental health conditions (Angermeyer & Dietrich, 2006; Kilian et al., 2021; Parcesepe & Cabassa, 2013; Schomerus et al., 2011). These stereotypes contribute to the elicitation of prejudicial emotional and discriminatory behavioural responses to people living with SZ and SUD, with heightened levels of fear, social avoidance, and rejection reported towards individuals living with these conditions (Angermeyer & Dietrich, 2006; Kilian et al., 2021; Schomerus et al., 2011). However, there are also notable differences in public responses to either condition. As highlighted in the systematic reviews of population studies conducted by Schomerus et al. (2011) and Kilian et al. (2021), people living with SUD are often perceived as being more responsible for their conditions than people who experience other mental health conditions, with SUD frequently attributed to personal weakness and bad character. As a result, public responses to people living with SUD are often characterised by higher levels of anger and lower willingness to help than are seen for other mental health conditions. In contrast, people who experience SZ are more likely to be perceived as experiencing a genuine mental illness, with greater public endorsement of coercive treatment seen in response to this population (Kilian et al., 2021; Schomerus et al., 2011).

People living with SZ and SUD also report high rates of perceived, experienced, and internalised stigma (Gerlinger et al., 2013; Matsumoto et al., 2021; Modi et al., 2018). These experiences are associated with a broad range of adverse health, social, economic, and treatment outcomes. Numerous systematic reviews have highlighted that, among other things, stigma contributes to difficulty obtaining and maintaining employment (Krendl & Perry, 2023; Marwaha & Johnson, 2004), increased social isolation and loneliness (Ingram et al., 2020; Lim et al., 2018), decreased self-esteem and psychological well-being (Gerlinger et al., 2013; Kulesza, 2013), and reduced treatment-seeking and engagement for people living with SZ and SUD (Hammarlund et al., 2018; Townsend et al., 2022). Stigma, therefore, reflects a serious challenge to the overall well-being of people living with SZ and SUD.

In addition to being heavily stigmatised, SZ and SUD also co-occur at high rates. A meta-analysis by Hunt et al. (2018) determined that approximately 41.7% of people living with SZ will also experience an SUD in their lifetime, compared to an estimated 10.7% of the global general population (Steel et al., 2014). Research has shown that people who experience co-occurring SUD and other mental health conditions face unique barriers when attempting to access appropriate care for their conditions. These include a lack of integrated treatment options, increased financial barriers, and heightened symptom severity (Priester et al., 2016). As a result, people who experience co-occurring conditions experience worse mental health outcomes and report higher rates of unmet needs compared to people who experience single conditions (Khan, 2017). Rates of homelessness, emergency service utilisation, victimisation, and incarceration are also elevated in this population, further increasing vulnerability (de Waal et al., 2017; Schütz et al., 2019; Snow et al., 2022). Despite this, people who experience co-occurring SUD and other mental health conditions are routinely excluded from psychological research (Blando et al., 2008). Consequently, little research has directly examined the stigma surrounding co-occurring SUD and other mental health conditions and less still has explicitly focused on stigma towards people living with co-occurring SZ and SUD (SZSUD; Anandan et al., 2020; Balhara et al., 2016).

Given the high levels of stigma associated with either condition or the frequency with which they co-occur, understanding how stigma manifests in response to SZSUD and how it is experienced by people living with these conditions is important. Establishing this understanding may help to inform targeted stigma reduction interventions, enhance mental health service delivery, and improve outcomes for this population. To our knowledge, the

literature exploring stigma towards people living with SZSUD has not been systematically investigated. This paper will, therefore, report the results from a systematic scoping review of the published empirical literature on this topic. For this review, stigma is defined based on the seven mechanisms of stigma outlined in Fox et al.'s (2018) Mental Illness Stigma Framework. This framework described three mechanisms of stigma from the perspective of the stigmatiser: (1) stereotyped cognitions, (2) prejudicial emotions, and (3) discriminatory behaviours. Additionally, stigma from the perspective of the stigmatised also comprises three mechanisms: (1) experienced stigma, (2) anticipated stigma, and (3) internalised stigma. The final mechanism is perceived stigma, which refers to perceptions of the public stigma surrounding mental health conditions. Operationalised definitions of each mechanism are presented in Table 1.

A scoping review approach was selected because of the lack of previous evaluation of this topic and the expected scarcity and heterogeneity of the existing research (Peters et al., 2015). Unlike traditional systematic literature reviews, which aim to answer precise clinical questions, scoping reviews allow for broader explorations of the existing literature aimed at identifying research and synthesising findings (Munn et al., 2018). The present review aimed to (1) scope and map the available literature exploring SZSUD stigma; (2) examine if and how stigma surrounding single and co-occurring SZ and SUD differ; and (3) determine what gaps exist in the literature.

Method

Protocol

The protocol for this scoping review was developed using the Joanna Briggs Institute template for scoping reviews (Peters et al., 2015). Data extraction and reporting followed the

Table 1 Operationalised definitions of the stigma mechanisms from the Mental Illness Stigma Framework (Fox et al., 2018)

Mechanisms of stigma	Definitions
The perspective of the stigmatiser	
Stereotypes	Cognitive responses in the form of negative beliefs about people who experience SZSUD, e.g., they are dangerous or untrustworthy.
Prejudice	Affective responses to people who experience SZSUD, e.g., anger, pity, or fear.
Discrimination	Behavioural responses or intentions towards people who experience SZSUD that are unfair, e.g., coercive treatment or social avoidance.
The perspective of the stigmatised	
Experienced stigma	The experience of being the target of stereotypes, prejudice, or discrimination from others.
Anticipated stigma	The expectation of future experiences of stigma.
Internalised stigma	The application of negative stereotypes or prejudice to oneself. This is commonly referred to as self-stigma.
Both perspectives	
Perceived stigma	Beliefs about the stereotypes, prejudice, and discrimination expressed by others towards people living with SZSUD.

guidelines set out by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR; Tricco et al., 2018).

Eligibility Criteria

Primary research reported in journal articles, books, conference proceedings, and theses or dissertations was considered for inclusion, provided a reliable English-language version of the publication was available to review. Definitions of key concepts are provided as follows.

Schizophrenia Spectrum Disorders For this review, SZ was defined as any of the disorders outlined in the Schizophrenia Spectrum and Other Psychotic Disorders chapter of the Diagnostic and Statistical Manual of Mental Disorders (5th ed., text rev; DSM-5-TR; American Psychiatric Association [APA], 2022a). Studies were also included if they focused on psychosis more broadly, provided it was not attributed to another condition.

Substance Use Disorders Due to the sparsity of the available literature, a broad definition of SUD was used to capture studies that explored any form of problematic substance use, with or without a formal SUD diagnosis. This included any of the Substance-Related and Addictive Disorders outlined in the DSM-5-TR (APA, 2022b) or the problematic use of associated substances at subclinical levels. However, studies were excluded if they focused exclusively on caffeine or tobacco use.

Stigma Studies were classified as being related to stigma if they examined any of the seven mechanisms of stigma outlined in Fox et al.'s (2018) Mental Illness Stigma Framework (see Table 1). This framework distinguishes between stigma from two perspectives: the perspective of the stigmatised and the perspective of the stigmatiser. In this review, "the stigmatised" refers to people living with SZSUD, while "the stigmatiser" refers to people who do not experience these conditions.

Search Strategy

Comprehensive searches of the PsycINFO, ProQuest Dissertation & Theses Global, CENTRAL, Web of Science, and Scopus electronic databases were conducted to identify relevant published and grey literature. The original search was conducted on the 8th of September 2022 and updated on the 15th of September 2023. The complete set of search terms used is outlined in Table 2. Searches were limited to titles, abstracts, and keywords.

Data Screening

Records identified during the database searches were exported and uploaded to the Covidence online review management platform. Duplicate results were removed prior to the commencement of the review. Two reviewers (author 1 and author 2) independently screened the titles and abstracts of all records. Full-text versions of potentially relevant records were then uploaded and independently reviewed. All conflicting ratings were resolved through discussion.

Table 2 Example Electronic Database Search Strategy

Strategy	#1 AND #2 AND #3 AND #4
#1	(stigma* OR stigmati?ation OR discriminat* OR prejudic* OR attitude* OR stereotyp* OR attribution* OR bias* OR unfair* OR "expressed emotion*" OR blame OR coerci* OR "affective response*" OR "affective reaction*" OR "social distanc*" OR danger* OR dangerousness OR unpredictab* OR immutab* OR selfish* OR unreliab* OR lazy OR laziness OR incompeten* OR competen* OR responsibility OR controllab* OR anger OR fear OR pity OR shame OR segregat* OR punish* OR "withhold* help" OR avoidance OR reject*)
#2	(schizophreni* OR schizoaffective OR schizo* OR psychotic OR psychosis OR "delusional disorder")
#3	(alcoholi* OR addict* OR ((drug OR alcohol OR substance OR cannabis OR hallucinogen OR inhalant OR sedative OR hypnotic OR opioid OR anxiolytic OR stimulant) AND (dependen* OR abuse OR problem* OR "use disorder*" OR misuse OR "related disorder*")))
#4	("dual diagnos*" OR "dual disorder*" OR "dually diagnos*" OR co-occur* OR cooccur* OR concurrent OR co-morbid* OR comorbid* OR co-exist* OR coexist*)

The reference lists from included papers, related literature reviews, and book chapters identified during the search were also screened. No additional studies were identified through this process.

Data Extraction

A data-extraction form was developed in Covidence to collect information about each study's design, methodology, relevant findings, conclusions, and limitations. Each reviewer acted as the primary data extractor for a subset of the studies. The second reviewer then checked the extractions to verify the accuracy of the results.

For studies with multiple publications, the record with the most comprehensive dataset was deemed the primary reference. Relevant data was extracted from both primary and secondary references as required.

Data Synthesis

The results from this review are presented in three parts. Firstly, the characteristics of the studies are outlined. Next, stigma findings from studies examining the perspective of people living with SZSUD are presented, followed by studies from the perspective of the stigmatiser (Fox et al., 2018). Within these sections, findings are subcategorised by the mechanisms of stigma examined and the types of data reported.

Broad limitations and gaps in the literature are noted in the discussion section. However, a critical appraisal of the quality of the studies was not conducted as this is not a typical feature of scoping reviews (Peters et al., 2015).

Results

Study Characteristics

Eighteen studies with 21 publications were included in the final review (see Figure 1). These publications comprised 16 peer-reviewed articles, four theses or dissertations, and one conference paper published between 1994 and 2020. Eight studies were conducted in the USA, five in Australia, three in the UK, one in Germany, and one in Canada. All studies were cross-sectional.

Six studies examined stigma from the perspective of the stigmatised, and 12 examined the perspective of the stigmatiser. All six studies exploring stigma from the perspective of people living with SZSUD recruited participants from mental healthcare services or

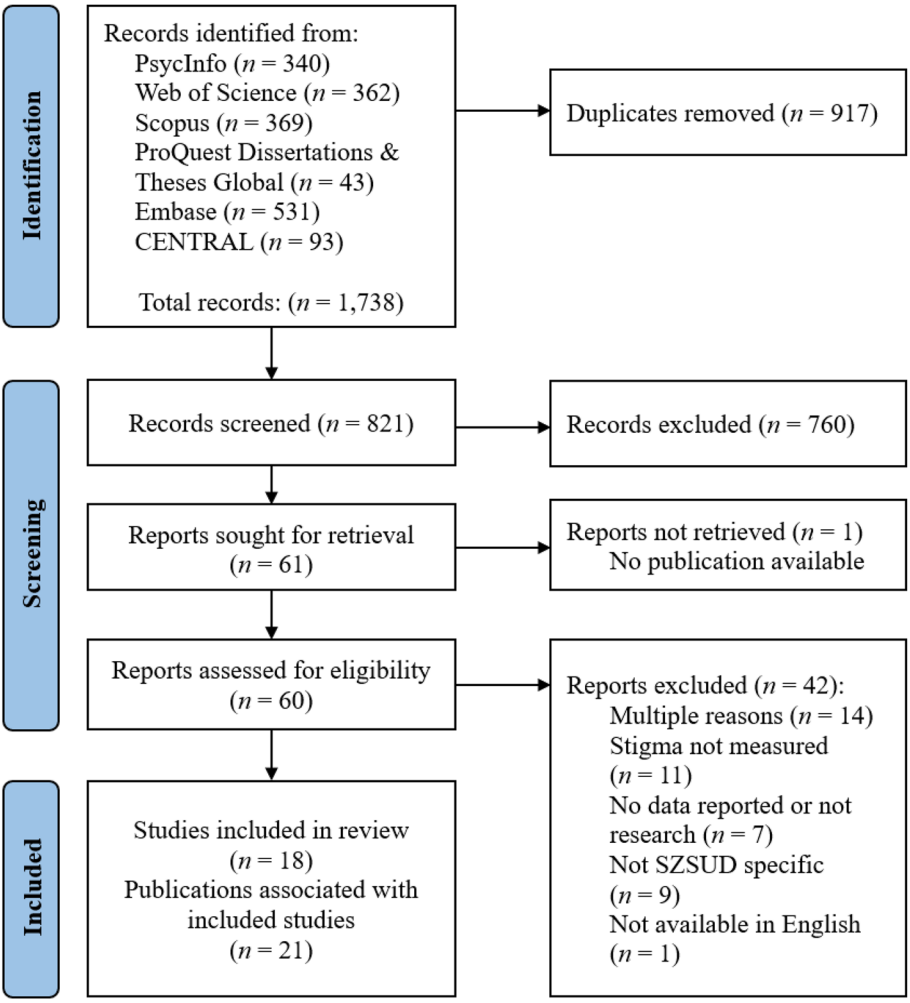

Fig. 1 PRISMA-ScR flow diagram

treatment programs. Most studies from the perspective of the stigmatiser focused on clinicians' responses ($n = 10$). Mental healthcare professionals were surveyed in seven studies, addiction clinicians in three, and healthcare providers in two. One further study examined the perspectives of legal professionals and members of the public, and another included the perspectives of carers of people living with SZSUD.

Definitions of SZ and SUD differed between studies. Studies referred to schizophrenia, schizoaffective disorder, psychosis, psychotic disorders, and schizophrenia spectrum disorders. Additionally, the terms substance use disorder, dependence, abuse, misuse, use, and problems were used variously to refer to SUD. Most studies explicitly framed their inquiry in terms of stigma ($n = 13$). However, five referred to attitudes, attributions, or beliefs without contextualising this as stigma.

Six studies compared SZSUD stigma to SZ and SUD, seven compared SZSUD stigma to SZ but not SUD, and five studies did not include any comparisons. Additional information about study characteristics is presented in Tables 3 and 4.

Studies from the Perspective of the Stigmatised

Experienced Stigma ($n = 3$)

One quantitative study examined experienced stigma for people living with SZSUD. Here, it was found that having a lifetime history of SUD was positively associated with experienced stigma for people living with SZ (Brunette et al., 2018).

Experienced stigma was also assessed in two qualitative studies. In these studies, people living with SZSUD described experiencing stigma from multiple sources, including the public, mental health providers, and other service users (Flanagan, 1994; Gran, 2014). People living with these conditions described feeling marginalised, limited, and trapped by the stigma surrounding their diagnoses (Flanagan, 1994; Gran, 2014). When considering their interactions with clinicians, people living with SZSUD described feeling misunderstood, judged, and viewed as untrustworthy because of their diagnoses. Some described attempting to manage or resist stigma by refusing the labels associated with their diagnoses or framing their experiences as variations of normality rather than abnormality (Gran, 2014).

Anticipated stigma ($n = 1$)

One qualitative study included descriptions of anticipated stigma. Here, participants living with SZSUD described feeling afraid to disclose their diagnoses to others due to concern about being stigmatised (Flanagan, 1994).

Internalised stigma ($n = 5$)

Internalised stigma was assessed in two qualitative and three quantitative studies. In qualitative interviews, participants described experiencing feelings of shame, hopelessness, and a loss of identity because of the stigma associated with their conditions (Flanagan, 1994; Gran, 2014).

In the quantitative studies, internalised stigma was found to influence the relationships between symptom severity and both self-esteem and stress for people living with SZSUD. Specifically, internalised stigma mediated the relationship between the severity of specific psychosis symptoms and self-esteem for people living with SZSUD, with higher levels of

Table 3 Summary of the characteristics of studies from the perspective of the stigmatised

Author and country	Number of publications and type	Sample and sample size	Study design	Conditions or comparisons	Mechanism/s of stigma examined	Stigma measures
(Brunette et al., 2018) USA	1 - Journal article	$n = 404$ people experiencing first-episode psychosis (209 with co-occurring lifetime SUD) recruited from community mental health centres	Quantitative (surveys and clinical interviews)	SZSUD; SZ	• Experienced stigma	• Seven items from the Stigma Scale
(Flanagan, 1994) Canada	1 - Thesis/dissertation	$n = 9$ people living with co-occurring schizophrenia and substance abuse receiving treatment from outpatient psychiatric services	Qualitative (interviews and field notes; phenomenological inquiry methods)	SZSUD	• Experienced stigma • Anticipated stigma • Internalised stigma • Perceived stigma	• Lived Experience of Schizophrenia and Substance Abuse Scale • Qualitative responses
(Gran, 2014) UK	1 - Thesis/dissertation	$n = 10$ men living with co-occurring paranoid schizophrenia and SUD recruited from forensic inpatient units	Qualitative (interviews; constructivist grounded theory methods)	SZSUD	• Experienced stigma • Internalised stigma	• Qualitative responses
(Rodrigues, 2010[a]; Rodrigues et al., 2013) USA	2 - Thesis/dissertation and journal article	$n = 49$ people living with co-occurring schizophrenia or schizoaffective disorders and substance abuse or dependence/use disorder accessing inpatient or outpatient mental health treatment	Quantitative (surveys and interviews)	SZSUD	• Internalised stigma	• The Self-Stigma of Mental Illness Scale: Stereotype Awareness and Concurrence subscales

Table 3 (continued)

Author and country	Number of publications and type	Sample and sample size	Study design	Conditions or comparisons	Mechanism/s of stigma examined	Stigma measures
(Schnell & Moritz, 2020) Germany	1 - Journal article	$n = 140$ people living with schizophrenia (65 with co-occurring cannabis use disorder) engaged in inpatient or outpatient treatment	Quantitative (surveys and clinical interviews)	SZSUD (Drug: cannabis); SZ	• Internalised stigma	• Questionnaire on Coping with Mental Disorder Diagnoses
(Shahar et al., 2010) USA	1 - Journal article	$n = 55$ people living with co-occurring schizophrenia spectrum disorder and SUD from a community treatment trial	Quantitative (surveys and clinical interviews)	SZSUD	• Internalised stigma	• The Personal Beliefs about Illness Questionnaire: Internality subscale

[a]Primary reference.

Table 4 Summary of the characteristics of studies from the perspective of the stigmatiser

Author and country	Number of publications and type	Sample and sample size	Study design	Conditions or comparisons	Mechanism/s of stigma examined	Stigma measures
(Avery et al., 2013) USA	1 - Journal article	$n = 84$ psychiatrists (54 addiction and 30 community psychiatrists)	Quantitative (surveys and diagnostic labels)	SZSUD (polysubstance); SZ; SUD (polysubstance); depression	• Stereotyped attitudes • Prejudicial emotions	• MCRS
(Avery et al., 2017) USA	1 - Journal article	$n = 159$ psychiatry residents	Quantitative (surveys and diagnostic labels)	SZSUD (polysubstance); SZ; SUD (polysubstance); depression	• Stereotyped attitudes Prejudicial emotions	• MCRS
(Avery et al., 2019[a]; Avery & Kast, 2018) USA	2 - Conference paper and journal article	$n = 411$ resident physicians	Quantitative (surveys and diagnostic labels)	SZSUD (polysubstance); SZ; SUD (polysubstance); depression	Stereotyped attitudes • Prejudicial emotions	• MCRS
(Barrowclough et al., 2005) UK	1 - Journal article	$n = 84$ carers of people living with schizophrenia or schizoaffective disorder (42 with co-occurring substance misuse)	Quantitative (interviews and clinical interviews; Leeds Attributional Coding System and content analysis)	SZSUD; SZ	• Stereotyped attitudes • Prejudicial emotions	• Camberwell Family Interview
(Francis et al., 2020) Australia	1 - Journal article	$n = 32$ community mental health clinicians	Quantitative (surveys and vignettes)	SZSUD (alcohol); SZSUD (drug: methamphetamine); SZ	• Stereotyped attitudes • Discrimination	• Social Distance Scale • Six items from the Depression Stigma Scale • Bespoke items measuring belief in recovery

Table 4 (continued)

Author and country	Number of publications and type	Sample and sample size	Study design	Conditions or comparisons	Mechanism/s of stigma examined	Stigma measures
(Kaur et al., 2009) Australia	1 - Journal article	Forensic psychiatric nurses' assessments of 38 clients with schizophrenia (36 with a history of illicit drug use)	Quantitative (analysis of medical charts and case notes)	SZSUD (drugs: amphetamines and/or opiates); SZSUD (drugs: cannabis or benzodiazepines); SZ	• Stereotyped attitudes • Discrimination	• Medical charts and case notes during clients' first hospital admission of the year
(Kloss & Lisman, 2003) USA	1 - Journal article	$n = 61$ (29 mental health clinicians and 32 addiction clinicians)	Quantitative (surveys and vignettes)	SZSUD; SZ; SUD (alcohol)	• Stereotyped attitudes	• Bespoke items measuring attributions of blame and control
(McCann et al., 2018) Australia	1 - Journal article	$n = 1230$ paramedics	Quantitative (surveys and vignettes)	SZSUD (drugs); SZ; depression; depression and SUD (alcohol)	• Stereotyped attitudes • Discrimination • Perceived stigma	• The Scales to Assess Mental Health Literacy • Social Distance Scale
(Minster & Knowles, 2006) Australia	1 - Journal article	$n = 90$ (46 legal professionals and 44 members of the public)	Quantitative (surveys and vignettes)	SZSUD (alcohol); SZSUD (drug: heroin); SZ; depression; depression and SUD (alcohol); depression and SUD (drug: heroin); "troubled person"; "troubled person" with SUD (alcohol); "troubled person" with SUD (drug: heroin)	• Stereotyped attitudes	• Bespoke items measuring perceived dangerousness

Table 4 (continued)

Author and country	Number of publications and type	Sample and sample size	Study design	Conditions or comparisons	Mechanism/s of stigma examined	Stigma measures
(Ralley, 2006[a]; Ralley et al., 2009) UK	2 - Thesis/dissertation and journal article	$n = 12$ psychiatric nurses working in secure inpatient hospital wards	Mixed-methods exploratory idiographic study (interviews; negative case analysis)	*Clients:* SZSUD; SZ; other mental illness; most difficult client; hypothetical ideal client *Non-clients:* SUD; no SUD; qualified colleague; unqualified colleague; "yourself"	• Stereotyped attitudes	• Repertory grid technique
(Siegfried et al., 1999) Australia	1 - Journal article	$n = 338$ community- and hospital-based mental health clinicians	Quantitative (survey)	SZSUD	• Stereotyped attitudes	• Bespoke 47-item questionnaire measuring knowledge, competence, and attitudes about treatment
(Versland & Rosenberg, 2008) USA	1 - Journal article	$n = 212$ clinical directors of substance abuse treatment agencies	Quantitative (surveys and vignettes)	SZSUD (alcohol); SZSUD (drugs); SZ; SUD (alcohol); SUD (drugs); depression; depression and SUD (alcohol); depression and SUD (Drugs)	• Stereotyped attitudes	• Bespoke items measuring perceived psychosocial functioning

[a]Primary reference

internalised stigma associated with decreased self-esteem (Rodrigues, 2010). Exposure to illness-related stress also predicted symptoms of depression for people living with SZSUD if they rated highly on the belief that their conditions were caused by internal factors (Shahar et al., 2010).

Only one study compared levels of internalised stigma between people living with SZSUD and SZ alone. Here, Schnell and Moritz (2020) found that people living with co-occurring SZ and cannabis use disorders reported lower levels of internalised stigma and higher levels of empowerment than those living with SZ alone. Symptom severity also explained some variance in internalised stigma.

Perceived stigma (*n* = 1)

Perceived stigma from the perspective of people living with SZSUD was explored in one qualitative study. People who experienced these conditions identified multiple stereotypes that they believed the public held about them, including that they are dangerous, "less than human," and disconnected from reality (Flanagan, 1994, p. 72). A lack of understanding, inaccurate information, and fear were cited as reasons for the proliferation of these stereotypes.

Studies from the Perspective of the Stigmatiser

Stereotypes (*n* = 12)

All studies exploring stigma from the perspective of the stigmatiser examined stereotypes about people living with SZSUD. Eleven studies assessed stereotypes quantitatively, and one utilised mixed methods.

Dangerousness and Unpredictability The stereotype of dangerousness was assessed in four studies, and unpredictability in two. Community mental health clinicians and paramedics rated vignette characters described as living with co-occurring SZ and drug use as more dangerous and unpredictable than those with SZ alone (Francis et al., 2020; McCann et al., 2018). No such difference was identified in mental health clinicians' ratings of co-occurring SZ and alcohol dependence compared to co-occurring SZ and methamphetamine use or SZ alone (Francis et al., 2020). In contrast, addiction clinicians, legal professionals, and the public did not rate people living with SZSUD as significantly more dangerous than those with SZ alone (Minster & Knowles, 2006; Versland & Rosenberg, 2008). However, addiction clinicians rated characters experiencing SZSUD as more dangerous than those experiencing alcohol dependence alone, but not drug dependence alone (Versland & Rosenberg, 2008). Perceptions of dangerousness were negatively associated with the amount of experience that addiction clinicians had working with people experiencing the same conditions as the vignette characters.

Controllability and Responsibility Four studies examined the stereotypes of controllability and responsibility. Two of these studies examined the belief that people who experience SZSUD are weak rather than sick. Here, paramedics, but not community mental health clinicians, rated characters described as experiencing co-occurring SZ and drug use as being more personally weak than those with SZ alone (Francis et al., 2020; McCann et al., 2018). Carers of people living with SZSUD were also found to ascribe more blame to their

relatives and attribute their experiences to causes that were more personal, controllable, and internal compared to carers of people living with SZ (Barrowclough et al., 2005).

Stereotypes of controllability and responsibility were also examined by Kloss and Lisman (2003), who compared the attitudes of addiction and mental health clinicians. Compared to addiction clinicians, mental health clinicians rated characters with SZSUD as being more to blame for the development of their problems, but no more responsible for the management of their conditions. No differences were noted between the groups for ratings of characters living with SZ or alcohol use disorder alone.

Treatability and Immutability Seven studies explored clinicians' perceptions of the treatability or immutability of SZSUD. Siegfried et al. (1999) found that 80% of mental health clinicians rated the treatment of SZSUD as more difficult than other conditions, regardless of how competent and knowledgeable they believed themselves to be. Similar findings were echoed by Ralley (2006), who found that mental health nurses rated clients living with SZSUD as more similar to their most difficult clients compared to patients with SZ or other mental health issues and acquaintances with a history of substance misuse. Overall, mental health nurses made more negative judgements about clients living with SZSUD compared to the other groups, although the specific judgements varied.

Similar findings were reported in three separate studies conducted by Avery et al. (2013, 2017, 2019). These studies used the Medical Condition Regard Scale (MCRS; Christison et al., 2002) to measure clinicians' perceptions of, among other things, how treatable and deserving of medical resourcing they believed certain conditions to be. Community psychiatrists, psychiatry residents, and resident physicians all rated people living with SUD and SZSUD more negatively than people experiencing SZ or depression alone (Avery et al., 2013, 2017, 2019). Attitudes worsened throughout residents' training (Avery et al., 2017, 2019). Emergency department residents reported more negative attitudes than residents working in internal medicine or obstetrics/gynaecology (Avery et al., 2019). Only addiction psychiatrists held more negative views about treating people living with SZSUD compared to SUD alone (Avery et al., 2013).

In contrast, two studies found no significant differences in clinicians' perceptions of the treatability of single versus co-occurring SZ and SUD. Francis et al. (2020) found that more than 80% of mental health clinicians believed that people living with SZ, with or without co-occurring alcohol dependence or methamphetamine use, could achieve partial or full recovery post-treatment. Similarly, 95% of addiction clinicians reported believing that improved psychosocial functioning was a somewhat or very likely outcome of treatment for people experiencing alcohol or drug dependence, SZ, or co-occurring diagnoses of both (Versland & Rosenberg, 2008).

Incapability One study by Versland and Rosenberg (2008) examined addiction clinicians' perceptions of the psychosocial functioning of vignette characters described as living with SZ, depression, alcohol or drug dependence, or co-occurring diagnoses of each. Despite all characters being described as experiencing moderate levels of functional impairment, addiction clinicians rated the characters with SZSUD as having the lowest levels of overall psychosocial functioning. Characters described as experiencing co-occurring SZ and drug dependence were rated as having significantly worse overall functioning than characters with SZ, alcohol dependence, or depression. In comparison, characters experiencing co-occurring SZ and alcohol dependence were rated as having significantly worse overall functioning than characters with alcohol dependence or depression only.

Untrustworthiness One study by Kaur et al. (2009) examined case notes written by mental health nurses at an inpatient forensic hospital about people living with SZ with and without a history of drug use. 44.7% of these clients were described as "drug-seeking" at least once and up to six times. The term "drug-seeking" was used more frequently in reference to people with a history of amphetamine and/or opiate use compared to cannabis, benzodiazepine, or no drug use, despite all groups requesting medication at similar rates.

Prejudice ($n = 4$)

Prejudicial emotions were quantitatively assessed in four studies. Carers of people living with SZSUD were rated as expressing more hostility and making more rejecting comments about the people they cared for compared to the carers of people living with SZ alone (Barrowclough et al., 2005). Similarly, community psychiatrists, resident psychiatrists, and resident physicians rated people living with SUD and SZSUD lower on the MCRS compared to those with SZ or depression alone, reflecting, among other things, less enjoyment in treating these conditions (Avery et al., 2013, 2017, 2019). Ratings were more negative for senior residents than junior residents (Avery et al., 2017, 2019) and emergency department residents compared to internal medicine or obstetrics/gynaecology (Avery et al., 2019). Only addiction psychiatrists rated people living with SZSUD more negatively than people with SUD alone (Avery et al., 2013).

Discrimination ($n = 3$)

Discriminatory behavioural intentions and responses to people living with SZSUD were quantitatively examined in three studies. Paramedics and mental health clinicians expressed a greater desire for social distance from people living with co-occurring SZ and drug use compared to SZ alone (Francis et al., 2020; McCann et al., 2018). However, mental health clinicians did not express a significantly different level of desire for social distance from people living with co-occurring SZ and alcohol dependence compared to co-occurring SZ and methamphetamine use or SZ alone (Francis et al., 2020).

In terms of the treatment of people living with SZSUD in healthcare settings, Kaur et al. (2009) found that, despite holding negative attitudes about clients with co-occurring schizophrenia and certain types of substance use, mental health nurses did not discriminate based on this when granting requests for medication.

Perceived stigma ($n = 1$)

One study by McCann et al. (2018) quantitatively examined paramedics' perceptions of public stigma about people living with SZ and SZSUD. Compared to their own responses, paramedics' assessments of the public's perceptions of people living with SZSUD were more negative. Paramedics reported believing that the public views people living with SZSUD as weaker, more capable of controlling their conditions, and experiencing less genuine medical problems than people with SZ alone. Paramedics' ratings of the public's desire for social distance from people living with SZSUD were also higher than for SZ.

Discussion

This scoping review offers the first known exploration and synthesis of the extant research on stigma towards people living with SZSUD. A total of 18 studies were identified and mapped, including six studies from the perspective of people living with SZSUD and 12 examining the public stigma towards people living with these conditions. Overall, the findings from this review confirm that stigma is a serious issue faced by people living with SZSUD and highlight a range of stereotypes, prejudicial emotions, and discriminatory behavioural intentions expressed by clinicians and carers.

Research from the perspective of people living with SZSUD was notably scarce, making up just one-third of the studies. Nonetheless, these studies demonstrate that people living with SZSUD face numerous challenges associated with experienced, anticipated, internalised, and perceived stigma from the public, clinicians, and other service users. Across both qualitative and quantitative studies, stigma was connected to feelings of shame and hopelessness, decreased self-esteem and self-efficacy, and adverse experiences in treatment settings. These findings are consistent with research examining the impacts of stigma on people living with single diagnoses of SZ and SUD, which have shown that stigma can negatively affect a broad range of outcomes and experiences, including self-esteem, well-being, and treatment engagement (Gerlinger et al., 2013; Hammarlund et al., 2018; Kulesza, 2013; Townsend et al., 2022). As people who experience co-occurring SUD and other mental health conditions already face unique barriers to accessing treatment and experience worse psychological outcomes compared to people who experience single diagnoses, the presence of additional stigma-related barriers to care for this population is concerning (Khan, 2017; Priester et al., 2016). This review, therefore, confirms the importance of continued efforts to understand and manage stigma associated with co-occurring conditions, including SZSUD.

Due to the sparsity of the available literature, it is difficult to determine how experiences of stigma compare between people living with SZSUD and either SZ or SUD alone. People living with SZSUD reported higher rates of experienced stigma (Brunette et al., 2018) but lower rates of internalised stigma and higher empowerment compared to people living with SZ alone (Schnell & Moritz, 2020). It is important to note that both studies were correlational. Therefore, it is unclear whether SUD influences experienced and internalised stigma for people living with SZ or if stigma influences substance use in this population. Regardless, the two studies present seemingly contradictory findings. One reason for this could be the focus on cannabis use disorders in Schnell and Moritz's study. Previous research has found that people living with co-occurring SZ and cannabis use disorders report significantly higher levels of empowerment compared to people with co-occurring SZ and alcohol use disorders (Berry et al., 2014). Higher levels of empowerment, in turn, predict lower levels of internalised stigma for people living with SZ (Brohan et al., 2010). As such, the experiences captured in Schnell and Moritz's study may differ from those of people living with SZSUD more broadly, although this is yet to be determined. Nonetheless, these findings highlight significant differences in the ways that stigma is experienced by people living with SZSUD and SZ, which warrants further exploration.

To date, most studies exploring stigma towards people experiencing SZSUD have focused on the perspective of the stigmatiser. Several common stereotypes were examined, including perceived dangerousness, unpredictability, responsibility, incapability, untrustworthiness, and treatability. A few of these stereotypes were also referenced by people living with SZSUD, including the belief that they are dangerous, untrustworthy,

disconnected from reality, or inferior to other people. A small number of studies also examined prejudicial emotions and discriminatory behavioural intentions, including clinicians' reported enjoyment of treating people living with SZSUD and the desire for social distance from them. Most studies found that carers and addiction, mental health, and healthcare clinicians responded more negatively to people living with SZSUD compared to people experiencing either condition alone. Similar findings have been highlighted in research examining the attitudes of healthcare, mental healthcare, and addiction clinicians towards people living with co-occurring SUD and other mental health conditions, with clinicians of all types expressing more negative attitudes towards people who experience co-occurring compared to single conditions (Nutt et al., 2017).

However, in the present review, specific responses to people living with SZSUD varied somewhat depending on the speciality of the clinician. Most studies found that healthcare and mental healthcare clinicians responded more positively to people living with SZ compared to SUD or SZSUD. In contrast, addiction clinicians responded more positively to people living with SUD compared to SZSUD. A possible reason for this is that clinicians respond more positively to conditions they treat more frequently due to increased self-efficacy, although support for this idea was mixed. Other factors that may contribute to clinicians' negative attitudes towards people living with SZSUD include the increased complexity associated with caring for people with multiple conditions, insufficient training, and inadequate resourcing (Anandan et al., 2020; Roberts & Maybery, 2014). Regardless of the reason, these findings are concerning as they suggest that, compared to people who experience single conditions, people living with SZSUD may be at increased risk of experiencing stigma when seeking healthcare, mental healthcare, or addiction treatment. This issue is exacerbated by the fact that integrated mental health and addiction treatment services remain limited in many places, meaning people who experience co-occurring conditions must navigate multiple systems simultaneously when accessing care (Priester et al., 2016; Roberts & Maybery, 2014). As such, experiencing heightened stigma across multiple settings may negatively impact treatment-seeking and engagement in an already vulnerable population.

Clinicians' responses to people living with SZSUD also appeared to be influenced by the types of substances used. Responses to amphetamine or opiate use were more negative than to alcohol, cannabis, or benzodiazepine use. Similar findings have been observed in research examining public attitudes towards substance use, with amphetamine and non-prescription opioid use eliciting more negative responses than alcohol or other types of drugs (Krendl & Perry, 2022; Singleton, 2010). Substance type may, therefore, reflect an important variable to consider when examining the stigma surrounding SZSUD, as well as co-occurring SUD and other mental health issues broadly.

Unlike clinicians and carers, the public and legal professionals did not express more stigma towards people living with SZSUD and SUD alone, suggesting that there may be differences in the attitudes and responses of people who routinely interact with individuals living with SZSUD and those who do not. Elsewhere, it has been proposed that having either very limited or very intimate familiarity with mental health conditions can increase stigma, while moderate familiarity is associated with reduced stigma (Corrigan & Nieweglowski, 2019). However, as the perspective of non-caregivers was only examined in one study using a single stereotype, it is not possible to draw meaningful conclusions about the relationship between familiarity and stigma towards people living with SZSUD or public stigma towards SZSUD more generally.

Limitations

The methodology of this scoping review was limited in a few ways. Firstly, due to the broad aims and definitions used, the studies captured in this review varied substantially in terms of focus, methodology, and population. As such, it was challenging to compare and synthesise findings between studies. It is also possible that the search terms used for this review may not have captured all relevant research on this topic. Additionally, the review did not aim to appraise the quality of included studies or methodologies. Therefore, it is not possible to draw direct conclusions about the quality of the existing research or the exact relationship between SZSUD and different stigma mechanisms. Instead, this review offered insight into the existing research on this topic, including key findings and gaps to address in future research.

Some general limitations of the studies included in this review are also noted. Many studies were limited by small sample sizes, narrow scope, and reliance on bespoke measures to examine stigma constructs. These are common issues in the mental health stigma literature broadly, which limit the generalisability and comparability of findings (Fox et al., 2018). Establishing and using more comprehensive and validated stigma measures would benefit future research.

Future Directions

Although the existing research identifies experienced, anticipated, internalised, and perceived stigma as challenges faced by people living with SZSUD, additional research is required to determine the scope and extent of these issues, as well as the implications of stigma for this population. Further research comparing experiences of stigma between people living with SZSUD and either condition alone is also warranted, as well as examining if and how these experiences are impacted by the types of substances that a person uses.

To increase the generalisability of results, future research should also seek to include the perspectives of people living with SZSUD who are not currently engaged in mental health treatment, as many people who experience co-occurring SUD and other mental health conditions do not receive treatment for their conditions (Watkins et al., 2001).

To date, research has largely focused on subjective experiences and expressions of stigma. This review highlights the need for more research examining the real-world implications of stigma and discrimination for people living with SZSUD. In particular, future research should assess if and how clinicians' negative stereotypes and prejudicial emotions impact the provision of treatment to people living with SZSUD in healthcare, mental healthcare, and addiction treatment settings, as well as how stigma impacts experiences in other areas of life for people living with these conditions.

A lack of research examining stigma from the perspective of the public and other people who do not provide care to individuals living with SZSUD was also identified. In particular, examining stigma from the perspective of friends, non-carer family members, and intimate partners of people living with SZSUD would be beneficial as experiences in interpersonal relationships are known to impact well-being and treatment outcomes for people living with SZ, SUD, and co-occurring SUD and mental health conditions broadly (Birtel et al., 2017; De Ruysscher et al., 2017; Groot et al., 2020; Haverfield et al., 2019; Vázquez Morejón et al., 2018).

Finally, this review highlights a need for research assessing specific strategies for reducing stigma towards people living with SZSUD. People living with SZSUD identified a lack of understanding and misinformation as contributing factors to the public stigma surrounding SZ and SUD, suggesting a need for targeted education and more positive portrayals of the conditions in media. In terms of stigma in treatment settings, targeted education programs for clinicians and investment in specialist-integrated treatment services have been found to reduce stigma and improve outcomes for people living with co-occurring SUD and other mental health conditions (Foster, 2020; Glover-Wright et al., 2023; Roussy et al., 2015). Future research should examine the efficacy and effectiveness of similar strategies for reducing stigma towards people living with SZSUD.

Conclusion

This scoping review provided the first systematic exploration of the existing literature examining stigma towards people living with SZSUD. Although the overall scope of the extant literature on this topic was found to be limited, the findings from this review confirm that stigma towards people living with SZSUD is a serious but under-researched issue. In particular, this review highlighted stigma from healthcare, mental healthcare, and addiction clinicians as a concerning issue that may negatively impact treatment-seeking and -engagement for people living with SZSUD. Targeted stigma reduction efforts are required to address stigma towards this population in clinical settings. Additionally, further research is required to confirm and build upon the findings from the existing research and to fill critical gaps that remain in the literature.

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

Declarations

Competing Interests Beth Hobern, Imogen Rehm, Michelle Blanchard, and Christopher Groot declare that they have no conflict of interest.

Elise Carrotte was a paid employee of SANE until October 2023.

Ethics Approval This is a review study. University of Melbourne's Human Research Ethics Committee has confirmed that no ethical approval is required.

Consent No animal or human studies were carried out by the authors for this article.

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