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Mapping experiences of workplace stigma and discrimination within the lived-living experience of illicit drug use and bloodborne virus peer workforce: a scoping review

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Abstract

Peer workers with lived-living experience of illicit drug use and/or bloodborne viruses are critical in linking community with health services and programs. Despite the increasing demand for, and recognition of, the value and contributions of peer workers, the risk of workplace stigma and discrimination due to their lived-living experience remains a persistent issue. This scoping review aims to map available literature about workplace stigma and discrimination against peer workers with lived-living experience of drug use or bloodborne virus. The methods used in this scoping review were guided by the Joanna Briggs Institute methodology. A Population-Context-Concept format was used to develop search strategies conducted across four databases to assess articles for eligibility. Community representatives from Australian national and state-based peer-led Drug User Organisations provided input and expertise into all components of this review. Data was extracted and analysed from 61 articles that met the inclusion criteria. Findings were mapped against five levels the Socioecological Model of Health framework, and presented as key risk factors that either increase vulnerability to or sustain stigma and discrimination in the workplace, or protective factors that promote resilience and positive workplace experiences for peer workers. This review highlights that workplace stigma and discrimination towards peer workers takes many forms, including increased emotional labour, negative attitudes or behaviours towards peer workers from non-peer staff, disparities in working conditions between peer workers and non-peer staff, and law enforcement activities that impact peer work. Workplace stigma and discrimination experienced by peer workers can be addressed through adequate planning and the development of organisations and systems that address and acknowledge the existence of stigma and work to create safe work environments for peer workers. This includes organisational policies and training which recognises the unique emotional burdens experienced by peer work and addresses unequal employment conditions between peer- and non-peer staff, and broader societal changes around how drug use is policed.

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Introduction

Peer workers are people with experiential knowledge who are trained to support and provide services to people with similar life experiences [1]. Models of care that include peer workers are utilised across a range of health services, settings and conditions, including mental health [2–5], homelessness [6], chronic disease management [7, 8], and drug and alcohol services [2, 3].

Peer workers from marginalised groups provide unique insights and approaches for health service and system design and delivery, and are used to support patient engagement and linkage to care, care coordination, outreach, emotional support, and social support roles [2–4]. Models of care that utilise peer workers have been effective in overcoming structural and social barriers faced by service users accessing health care [2]. Models of care involving peer workers also reduce the use of crisis or emergency services [4], and improve psychosocial outcome measures, such as quality of life and social support measures [5, 6], when compared with standard models of care.

Peer workers have long been involved in delivering education, social & emotional support, health systems navigation, and referral to clinical services 9–11]. More recently, the role of peer workers has evolved from providing basic support to include a broader, and sometimes clinical function [12, 13]. In bloodborne virus (BBV) care, this has included expanding the scope of peer worker practice to include providing pre- and post-test counselling, rapid testing and delivery of results, and referral for treatment [14, 15].

Harm reduction services, and services for people with BBVs have a long history of peer leadership and peer work [16–19]. More recently, harm reduction and BBV peer workers have been identified as critical to World Health Organisation [20] viral hepatitis elimination activities due to their skills and experience in engaging with the marginalised communities most affected by hepatitis C who are at risk of missing out on access to curative treatments [20–22]. Peer workers support engagement in hepatitis C care and treatment by helping people access and navigate health services and systems, delivering point-of-care testing, re-engaging people lost to follow-up, and supporting liver health monitoring [18, 23, 24]. Despite the recognised importance of peer workers in improving access hepatitis C related health services, the peer worker role can be ambiguous and inconsistently defined, with unclear expectations and responsibilities [16, 17].

Peer workers may be at risk of stigma or discrimination in the workplace due to their health status or by being members of stigmatised communities. Stigma relates to the social disqualification of individuals or groups based on features of their identity or their health status [25], while discrimination is the adverse actions taken against a person due to features of their identity, health status or personal experiences [26]. In a workplace context, these adverse actions can include (but are not limited to) employee dismissal, treating employees differently depending on features of their identity, or offering different terms and conditions of employment to different employees depending on features of their identity.

Workplace stigma and discrimination can lead to mistreatment, prejudice, and inequities, placing workers, or prospective workers, at risk of occupational harms [27, 28]. Workplace stigma and discrimination may limit the expansion of the peer workforce, and peer worker models of BBV care, at a time when peer workers have been identified as integral to efforts such as hepatitis C elimination [22]. Therefore, it is important to understand the specific ways workplace stigma and discrimination are experienced by peer workers with a lived-living experience of illicit drug use and/or BBV peer workers, so that targeted strategies can be developed to reduce the risk of occupational harm.

This scoping review aims to map peer workers' experiences of workplace stigma and discrimination as documented in the research literature. This includes building an understanding of how workplace stigma and discrimination is enacted towards peer workers, how workplace stigma and discrimination impacts peer workers and their work, and whether the presence of peer workers leads to de-stigmatisation of BBVs, drug use and/or peer work in their workplaces. In the context of this scoping review, stigma and discrimination can be understood as the unique challenges that arise as a consequence of being employed into workplaces with a lived-living experience of illicit drug use and/or BBVs.

Methods

The methods used in this scoping review were guided by the Joanna Briggs Institute (JBI) (2020) methodology [29, 30]. The PRISMA Extension for Scoping Review (PRISMA-Scr) checklist [31] is included as Additional File 1.

Stakeholder involvement in this scoping review (The Project Team)

To ensure the review was grounded in lived experience, community priorities and meaningful partnerships, the Project Team was made up of Burnet Institute researchers and representatives and community members connected to Australian national and state-based peer-led drug user organisations (DUOs). Most of these representatives had experience as peer workers in peer-led DUOs in Australia, and were in senior roles within their

organisations which included management of other peer workers. Representatives of DUOs co-led the conception of the review, including determining the research aims, objectives and methods, and provided feedback and input throughout the development of the review through regular meetings with Burnet Institute researchers. Detailed minutes from these meetings were captured and disseminated to the Project Team and feedback was encouraged at all stages of the review.

In addition to determining research aims, objectives and methods, the involvement of DUO representatives within the research team shaped this study in the following, specific, ways:

- Determined the use of scoping review of international literature as an overarching method, in order to avoid duplication of, and provide supporting evidence for, planned peer-led research activities within the DUO sector that would have a focus on primary research and Australian experiences [32];
- Helped to determine data to be extracted from included studies;
- Identified additional studies to be screened for inclusion that were not identified through database searches;
- Reviewed preliminary findings to guide analysis, and assisted in determining the choice of the Socioecological Model of Health (SEM) as the analysis framework [33];
- Determined the key findings to be highlighted within the discussion section;
- Ensured that language within the review reflected contemporary ways to identify key populations of people described within this review;
- As members of The Project Team and co-authors of this review, DUO representatives were also involved in writing and reviewing the manuscript, including revising sections in response to peer review.

Involvement of DUO representatives in this project, aligns with recommendations around co-creation of scoping reviews with knowledge users outlined by the JBI Scoping Review Methodology Group [34].

Eligibility criteria

The *Population-Concept-Context* (PCC) structure [30] was used to develop the eligibility criteria, search strategy and data extraction. Eligibility criteria is summarised in Table 1.

Search strategy

Two authors (LW, SC) consulted with a research librarian to develop search strategies from the PCC. Searches were conducted across Embase, PsychInfo, Medline and Emcare. All search strategies are provided in Additional File 2. Additional articles were also provided by Project Team members for screening.

Screening of studies and extraction of results

Two authors (SC, LW) screened the titles and abstracts of all retrieved studies and met regularly to reach a consensus of studies that would progress to full-text screening. One author (LW) retrieved the full text of potentially eligible studies. All full text articles were screened by two authors, with one author (LW) screening all studies and four authors (SC, EB, PA, EA) acting as secondary screeners. Where a decision to include articles was unclear, the two screening authors met with a third author (JR) to reach consensus. Once the included studies were determined from the initial searches, forward and backward citation searching of included studies was performed by authors (SC, EB, LW). The full-text screening process was repeated for any studies which passed initial title and abstract screening. The screening process was managed in EndNote X9 [35]. Authors (SC, LW, EB) performed data extraction of the included studies.

Synthesis of results

Data from included papers was extracted into a standardised template in Microsoft Excel. Key characteristics and findings from each study were extracted to enable data mapping and synthesis. The template, with all extraction fields, is included as Additional File 3.

Extracted data was analysed and synthesised using a descriptive content analysis approach [30]. Three authors (SC, LW, EB) grouped the findings into categories representing recurrent experiences of workplace stigma and discrimination of peer workers found in the literature. These categories were then organised using the SEM [33] to map the findings of this review. Following review by the Project Team, findings were summarised and finalised for preparation for final publication.

Socioecological model of health (SEM)

The SEM was nominated as a structuring device by the Project Team as it examines and recognises the broad and multiple layers of influence affecting the health of individuals [33, 36, 37]. The SEM posits that health of individuals is affected by interactions between the individual, groups of individuals, and the broader social, cultural and political environments that impact them. By organising findings by levels of the SEM, leverage points for action are highlighted. The SEM is well suited to public health and social research where lived experiences are influenced by overlapping systems of influence. Although multiple versions of the SEM exist, a variation

Table 1 Population-Concept-Context structure for eligibility screening of studies

	Inclusion criteria	Exclusion criteria
Population	People with BBVs/history of BBV (HIV, hepatitis C, hepatitis B) and who inject or use drugs People who are in health or community peer worker roles where they need to disclose their lived-living experience of illicit drug use and/or BBVs. May be voluntary or paid	Role does not require a person to have lived-living experience Person might have lived-living experience but are not required to disclose this as part of their role
Concept	Experiences of workplace stigma and/or discrimination related to the peer worker role may include negative or positive experiences of how workplace stigma and discrimination has been challenged or reduced through peer worker role	Experiences of stigma/discrimination not related to peer worker role (i.e. not workplace stigma/discrimination)
Context	Healthcare or health policy setting, hospital, health service, aged care, health-related non-government organisation, alcohol and other drug service, harm reduction service, prison health service, community health, primary health or government (local, federal, state) health department; or participants conducting peer worker roles in a secondary organisation which is attempting to influence changes to existing health services designed/delivered in a hospital, health service, aged care, health-related non-government organisation, alcohol and other drug service, harm reduction service, prison health service, community health, primary health or government (local, federal, state) health department	
	Original primary research or evaluation article (any methods) or secondary review research article (including systematic reviews, meta-analyses, meta-syntheses, narrative reviews, mixed-methods reviews, qualitative reviews and rapid reviews) Published as either peer-reviewed academic literature or within the grey literature These will only be included if no journal publications from the thesis research can be found	Opinion piece, commentary or editorial without original research The article has no stated research method or analysis of the data collected through the research
	Article available in English	
	Full text available	

of McLeroy's five level ecological model [33] has been utilised to best suit the aims and objectives of this review after taking into account the nature of the findings.

Results

After screening 3843 titles and abstracts, and 320 full text articles, 61 records from 61 studies were included in the review. Search results are outlined in Fig. 1 below.

The key characteristics of all studies are presented in the key characteristics table (Table 2). Included studies primarily used a qualitative study design, with the majority collecting data through interviews (n = 31, 52%) or secondary research (n = 15, 25%). Half of the included studies came from either Canada (n = 19, 32%) or Australia (n = 11, 18%). Between 2005 and 2025, there has been an overall rise in relevant articles with most included studies being published between 2018 and 2023. These characteristics of included studies are illustrated below in Figs. 2, 3 and 4.

Findings have been organised across five levels in accordance with the SEM. Each level captures factors that increase vulnerability to workplace stigma and discrimination (risk factors), and protective factors that enable positive workplace experiences. Factors categorised at each level are determinants, identified through the literature, that make peer work more or less difficult or make individuals more or less likely to apply for or stay in a peer worker role. The factors most frequently cited in the literature included complementary risk and protective factors and/or the factors highlighted by the Project Team as particularly important in their experience as peer workers will be highlighted in the following sections (Fig. 5). The full list of all risk and protective factors identified through the literature is in Additional File 4, and a summary of risk and protective factors by paper and SEM level is captured in Table 3.

Intrapersonal level

This level identifies factors that are intrinsic to individual peer workers. This includes personal skills, feelings, attitudes, thoughts or behaviors that could either positively or negatively impact their willingness to apply for, or stay in, a peer worker role.

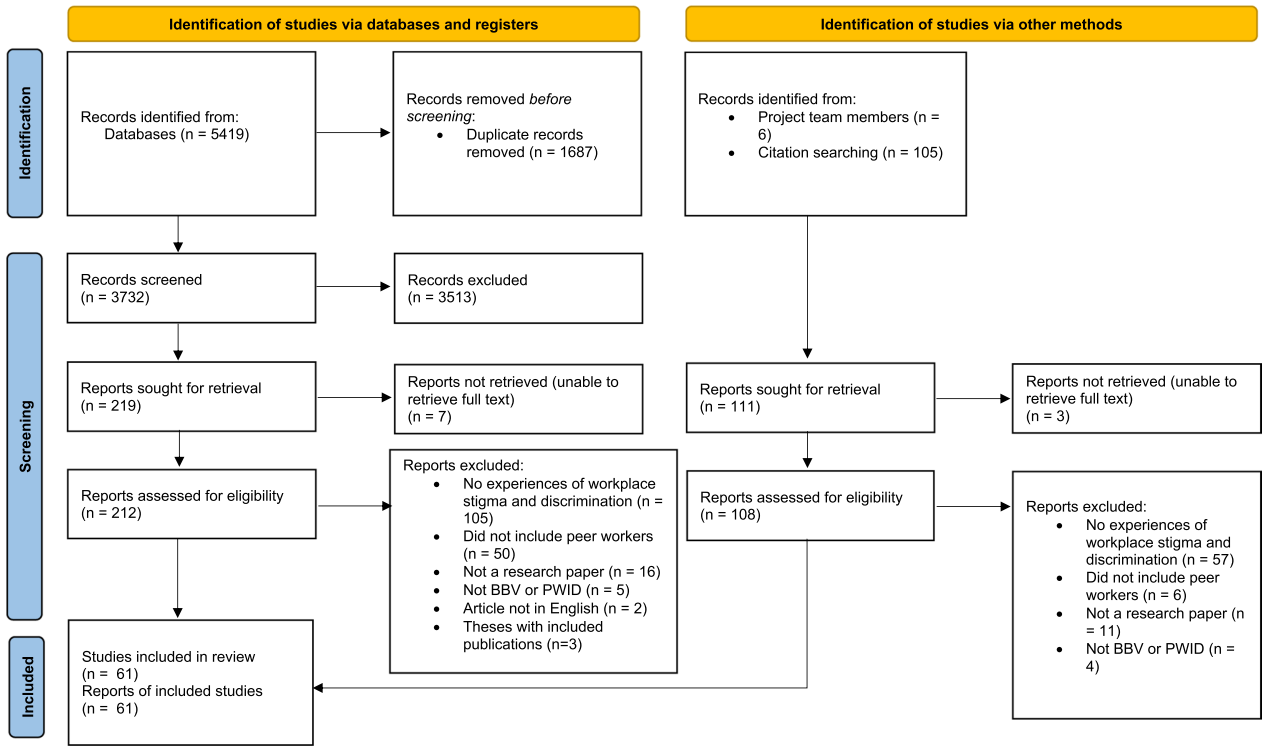

Fig. 1 PRISMA flow diagram

Intrapersonal risk factors (n = 33, 54%)

Emotional labour appeared most frequently as a risk factor to peer work (n = 21, 34%). *Emotional labour* refers to the needs of workers to manage their emotions at work, or display certain types of emotions, in order to align with organisational rules, guidelines or norms [39]. Emotional labour is a common component of service and caregiver roles, and in the context of this study relates to peers not only having to manage their own emotions but also taking on responsibility for managing the emotions of their clients and colleagues. Emotional labour is underpinned by stress and distress relating to the peer worker role. At times, *emotional labour* for peer workers involved navigating a complex emotional landscape (e.g., peer workers working in overdose prevention within their own community), and was closely connected to the other factors including *unmanageable workload and burnout* (n = 14, 23%), *pressure and demand to perform* (n = 13, 21%), *feeling separated from community through the role* (n = 4, 7%) and *fear of/anticipating stigma/discrimination from non-peers/referral partners* including police and paramedics (n = 3, 5%).

Intrapersonal protective factors (n = 43, 71%)

The most frequent protective factors at the intrapersonal level centre around the *personal benefits of peer work* (n = 37, 61%). *Personal benefits of peer work* speaks to the altruistic nature of peer workers and how being able to provide support to their community was itself an enabler for applying for, or remaining in, a peer worker role. Peer workers saw their work as being rewarding and valuable for several reasons, including being a role model [16, 40–44], having the opportunity to dispel myths and misconceptions around BBVs and/or drug use [45, 46], and being able to draw on lived-living experience in a way that was valuable to others [43, 45, 47–49].

Ideal qualities, skills, or characteristics of peer workers were extracted and identified (n = 21, 34%). These qualities, skills or characteristics could be further categorised into personal qualities and practical skillsets. Personal qualities include being honest, reliable, passionate, self-motivated, non-judgemental, or empathetic [16, 40, 50–56]. Skills and experience include being proficient in identifying client barriers to care, being from the community, being comfortable to draw on lived-living experience when necessary and also having the capacity to perform practical tasks like setting meeting reminders or attending client appointments [41, 43, 55–61].

Interpersonal level

The interpersonal level explores interactions with other people and highlights relationships between peer workers

Table 2 Key Characteristics of included studies

First author (Year)	Study aim	Study design	Participants	Setting	Terminology for peer worker role	Country
Adams [118]	"To identify essential considerations for guideline development within harm reduction, we examined whether guideline standards are consistent with a harm reduction approach in their recommendations on involving people who access services" (p.1)	Qualitative literature review	Six guideline standards and 18 publications met inclusion criteria	Harm reduction services	People with lived and living experience of substance use	Documents were from Australia, Canada, The Netherlands, Wales, and international/unspecified
Bardwell [67]	To examine the impact that monetary volunteer stipends provided through a drug user organisation to people who inject drugs have on creating employment opportunities and shaping participation in drug user organisations	Semi-structured interviews	23 current and former members of the Vancouver Area Network of Drug Users	Peer-led drug user organisation	Peer members, volunteers	Canada
Bonnington [50]	To explore hepatitis C peer support implementation in drug treatment settings to inform the successful scale-up of HCV treatment provision for marginalised populations	Qualitative in-depth interviews and focus groups conducted within a hepatitis C treatment intervention study	Pre-intervention: 35 clients, 22 providers Post-intervention: 13 clients, 26 providers	Primary care and drug treatment settings	Peer educator, buddy	UK
Brener [58]	To evaluate the implementation of consumer participation activities among Network of Alcohol and other Drugs Agencies of NSW's member agencies	Mixed methods – survey and in-depth interviews	Survey – 86 staff members Interviews – 27 consumers	Non-govenrment alcohol and other drug services	Consumer	Australia

Table 2 (continued)

First author (Year)	Study aim	Study design	Participants	Setting	Terminology for peer worker role	Country
Brown [78, 79]	To identify the benefits, barriers, and enablers for meaningful participation of people who use drugs in research, and to develop a deeper understanding of the role of peer-based drug user organisations in the HCV response	Participatory study using methods for systems thinking and modelling; learnings identified through qualitative analysis of project documentation and interviews and informal discussions with stakeholders	10 peer- and community-based organisations involved in the collaboration 18 participatory workshops Reviewing and refinement of findings with 11 participants from peer-based drug user organisations Interviews and informal discussions with staff from peer organisations	Peer-led drug user organisations and community-based HIV and hepatitis C organisations	Peer researcher, peer staff	Australia
Brown [119]	"To better understand how to tackle structural stigma via the Meaningful Involvement of Peoplewith HIV/AIDS (MIPA), while highlighting the challenges thatmust be navigated to demonstrate effective peer leadership inthe process."	Participatory study drawing together insights from peer staff from Australian community and peer organizations. We used hypothetical narratives, affinity methods and causal loop diagrams to co-create system maps that visualise the factors that influence the extent to which peer leadership is expected, respected, sought-out and funded in the Australian context	90 peer staff from 10 Australian community and peer organisations	Peer-led drug user organisations and community-based HIV and hepatitis C organisations	Peer leadership, Peer staff	Australia
Cama [45]	"To examine experiences of and responses to stigma and discrimination among people with hepatitis C who are involved in advocacy" (p.421)	Semi-structured interviews	Nine people living with hepatitis C working in positive speaker roles	Community-based hepatitis C organisation	C-een and Heard positive speaker	Australia
Chang [16]	"To review the evidence on peer involvement in HIV and harm reduction services in low- and middle-income countries" (p.2)	Rapid review	29 included studies	HIV and harm reduction services	Various	Various LMICs including China, Kenya, India, Russia, Senegal, Thailand, Ukraine, and Vietnam

Table 2 (continued)

First author (Year)	Study aim	Study design	Participants	Setting	Terminology for peer worker role	Country
Chapman [68]	"To (1) investigate the prevalence of lived experience in AOD workers, (2) build an initial profile of workers with lived experience, (3) identify areas where appropriate support mechanisms may be warranted, and (4) generate recommendations for future work" (p.63)	Quantitative survey	268 AOD workers with lived experience	Non-government alcohol and other drug services	AOD worker with lived experience	Australia
Chen [40]	"To … comprehensively examine how peers, clients, and other stakeholders experience peer work as embedded in nonpeer-led drug use service settings, including *how* such a unique workforce or service modality may benefit the field as well as how various organizational conditions may affect these experiences." (p.2)	Systematic revew of qualitative evidence	33 included studies	Nonpeer-led drug use service settings	Peers	Studies from Australia, Canada, India, Indonesia, Norway, Senegal, UK, USA
Collins [51]	"To understand how peer mentorship affects care for hospitalized patients with substance use disorders, and how working in a hospital affects peer mentors' sense of professional identity" (p.1)	Qualitative study utilizing participant observation, individual interviews, and focus groups	46 patient participants 12 staff participants • 5 physicians • 3 social workers • 2 peer mentors • 1 outreach liaison • 1 peer mentor supervisor	Hospital	Peer mentor	USA
Coupland [63]	To explore the benefits and challenges of a participatory action research project involving collaboration between peer workers and health workers	Qualitative evaluation of research project, utilising semi-structured interviews, focus groups and observation	Members of two research teams, each consisting of: • 2 peer workers • 2 – 4 health workers • 2 university researchers	Drug health services	Peer worker	Australia
Damon [76]	"To understand the impact of community-based participatory research on people who use drugs" (p.85)	In-depth interviews	14 interviews with people who use drugs who had experience in CBPR projects	Research settings and a peer-led drug user organisation	Peer researcher	Canada

Table 2 (continued)

First author (Year)	Study aim	Study design	Participants	Setting	Terminology for peer worker role	Country
Dechman [59]	To illustrate the difficulties faced by peer helpers implementing harm reduction practices	Focus groups	17 people who are secondary distributors for a needle exchange program	Needle and syringe program	Peer helper, natural helper	Canada
Englander [60]	To share learnings and recommendations from a program integrating peers into a hospital addiction-based medicine team	Case study	Program has involved 8 peer mentors since inception	Hospital	Peer mentor	USA
Feige [61]	"To identify best practices for engaging and compensating people with lived experience in organizations' work, and for communicating the importance of adopting best practices" (p.4)	Narrative literature review	47 included sources	Various	Various	Canada
Gillespie [120]	"To generate a better understanding of current approaches and best practices for peer support models for harm reduction services" (p.3)	Qualitative iterature review	28 included sources	Harm reduction services	Peer worker	Studies from Australia, Europe, and North America
Goodhew [62]	"To identify the types of activities that are associated with consumer participation, their associated outcomes and the factors that facilitate or constrain consumer participation in drug and alcohol treatment services" (p.3)	Systematic review and content analysis	16 included studies	Alcohol and other drug services	Consumer	Studies from Australia, Canada, Finland, and UK
Greer [65]	"To highlight issues involved in compensating people who use drugs who are involved in peer work" (p.447)	Narrative literature review	25 included studies	Various	Peer	Studies from Australia, Canada, England, Thailand, UK and international
Greer [47]	"To examine the perspectives of people who use or have used illicit drugs on peer engagement in health and harm reduction settings across British Columbia, Canada" (p.227)	Focus groups	83 people who use drugs	Peer-led drug user organisations and harm reduction services	Peer	Canada

Table 2 (continued)

First author (Year)	Study aim	Study design	Participants	Setting	Terminology for peer worker role	Country
Greer [69]	"To take an in-depth, critical examination of the conditions of peer work in BC, Canada" (p.2)	Semi-structured interviews	15 people who use drugs currently or recently engaged in peer work	Harm reduction services	Peer worker	Canada
Greer [64]	"To critically examine and characterize peer worker roles and the definition, recognition, and support for these roles within harm reduction organizations" (p.1)	Semi-structured interviews	15 people who use drugs currently or recently engaged in peer work	Harm reduction services	Peer worker	Canada
Haw [121]	To examine the advantages and challenges of mobilising peer outreach workers in needle and syringe program	Quantitative survey	100 peer outreach workers and 33 managers	Needle syringe program	Peer outreach worker	China
Hilliard [121]	To determine facilitators and barriers to engagement of women with lived experience of substance use in pregnancy in research	In-depth interviews and focus groups	Design phase: Stakeholder input into design of the interview guide, involving 19 members of a stakeholder advisory committee (which included people with lived experience of substance use) Data collection phase: 17 participants with lived experience of substance use in pregnanacy • 10 participated in interviews • 7 participated in focus groups	Medical and public health research institutes	Person with lived experience	USA
Ibrahim [122]	"To investigate the experience of peer support workers providing recovery support to people with substance use disorders in Egypt" (p.1)	Semi-structured interviews	17 peer support workers	Substance use treatment programs	Peer support worker	Egypt
Iryawan [46]	"To explore the impacts of peer support for people who inject drugs on HIV care access and engagement in Indonesia" (p.1)	Semi-structured interviews	20 participants: • 8 people who inject drugs living with HIV • 6 peer support workers • 6 service providers	Harm reduction services	Peer support worker	Indonesia

Table 2 (continued)

First author (Year)	Study aim	Study design	Participants	Setting	Terminology for peer worker role	Country
Kennedy [57]	"To characterize peer worker involvement in overdose prevention site programming" (p.60)	Qualitative study utilising observation and in-depth interviews	72 people who use drugs	Overdose prevention sites	Peer worker	Canada
Kolla [74]	To examine constraints on people who use drugs when implementing the advice from an overdose education and naloxone distribution program	Qualitative study utilising observation, semi structured interviews and a focus group	Interviews: 5 Satellite Site workers Focus Group: 4 Satellite Site workers and the program coordinator	Home-based harm reduction satellite sites	Satellite site worker	Canada
Lalane [52]	"To explore the elements of the PW's role in a hospital interdisciplinary addiction consult model" (p.3)	Mixed methods exploratory case study utilising medical record analysis and interviews	Medical record analysis: 59 patients Interviews: 3 peer workers	Hospital	Peer worker	USA
Lee [123]	"To synthesize the current body of knowledge on peer engagement in priority setting for substance use and addiction services in British Columbia" (p.5)	Literature review	Number of included studies not stated	Substance use and addiction services	Peer	Canada
MacLellan [53]	To review the impact of peer support roles on peer workers	Systematic review and qualitative metasynthesis	34 included studies	Various	Peer support worker	Studies from Australia, Canada, Ethiopia, Ireland, New Zealand, Uganda, UK, and USA
Madden [81]	To examine drug user representation in UN drug policy processes	Document mapping and analysis	15 processes analysed	United Nations	People who use drugs, peers	International
Magidson [41]	To evaluate the acceptability of integrating a peer role into community HIV care teams	Mixed methods utilising quantitative survey and semi-structured interviews	40 participants: • 15 patients • 25 stakeholders	Community-based HIV care teams	Peer with lived experience	South Africa
Mamdani [70]	To highlight the stressors faced by peer workers in order to identify and implement supports for peer workers	Mixed methods utilising focus groups and survey	Focus groups: 31 peer workers Survey: 50 peer workers	Peer-led drug user organisation and a housing support service	Peer worker	Canada
Mamdani [54]	"To better understand peers' involvement in overdose response settings" (p.2)	Semi-structured interviews	42 peers who had been at the scene of an overdose	Overdose response settings	Peer	Canada
Marshall [17]	To understand the roles of people who inject drugs in harm reduction initiatives	Systematic review	164 included sources	Harm reduction services and initiatives	Peer worker, peer helper, natural helper, people with lived experience of drug use	Studies from Canada, USA, Europe, Eastern Asia, Oceania, South-East Asia, and Southern Asia

Table 2 (continued)

First author (Year)	Study aim	Study design	Participants	Setting	Terminology for peer worker role	Country
Marshall [75]	"To summarise research on the personal impacts of the peer-helper role in overdose prevention programmes" (p.280)	Rapid review	27 included studies	Overdose prevention programs	Peer helper	Studies from Belgium, Canada, Netherlands, UK, USA, Venezuela, and international
Masese [55]	To explore the role of peer educators in healthcare delivery, the risks of the role, and their experiences working with people who inject drugs	Semi-structured in-depth interviews	20 peer educators	Harm reduction services	Peer educator	Kenya
Mercer [71]	To identify lessons learned and recommendations for policy, practice and research in relation to peer support within overdose prevention programs	State-of-the-art review	46 included studies	Overdose prevention programs	Peer	Studies from Australia, Canada, China, Italy, Netherlands, UK and USA
Miler [42]	To examine peer support models for people who are homeless and use drugs	State-of-the-art review	62 included studies	Various	Peer	Studies from Canada, France, Portugal, UK, and USA
Ngo [80]	To evaluate a Needle Syringe Program in Vietnam	Qualitative study utilising interviews, focus groups and observation	Interviews: • 23 key informants • 8 people who inject drugs Focus groups: 20 groups, with 6–8 participants in each (peer educators, people who inject drugs, local residents)	Needle syringe program	Peer educator	Vietnam
Norman [124]	"To describe the acceptability of a peer-based integrated model of hepatitis C care by the clients using the service" (p.1)	Focus groups and interview	Focus groups: 9 service users Interview: 1 peer worker	Alcohol and other drug service	Peer worker	Australia
Olding [66]	"To examine experiences and drivers of burnout among people with lived/living experience of drug use working at overdose prevention sites in Vancouver, Canada" (p.1)	Qualitative study utilising in-depth interviews, focus groups and observation	Interviews: 23 overdose response workers Focus groups: 20 overdose response workers	Overdose prevention sites	Overdose response worker	Canada

Table 2 (continued)

First author (Year)	Study aim	Study design	Participants	Setting	Terminology for peer worker role	Country
Ompad [125]	"To explore drug researchers' experiential knowledge, drug use disclosure, and how these issues may or may not influence their research." (p. 2)	Cross-sectional survey	669 drug researchers	Various research organisations	Drug researchers with experiential knowledge	International – participants responded from 43 different countries
Parkes [43]	To design, implement, and evaluate a peer-delivered harm reduction and well-being intervention for people experiencing homeless and drug use	Mixed methods evaluation utilising interviews, reflective diary analysis, observation, and outcome measures (health check) for intervention participants	Evaluation interviews: • 12 staff members • 14 Peer Navigators • 34 intervention participants Intervention participants: 68 people experiencing homelessness and drug use	Homelessness outreach services	Peer Navigator	England and Scotland
Pauly [44]	To understand motivators for experiential workers in overdose response settings	Focus groups	31 experiential workers with experience working in overdose response	Peer-led drug user organisation and a housing support service	Peer, experiential worker	Canada
Pederson [56]	To explore the constructions of credibility and patterns of representation of lay experts in the development of Norwegian drug policy	In-depth interviews	30 interview participants • 13 representatives of drug user organisations • 7 workers at drug policy organisations • 6 government or health care workers • 4 researchers	Peer-led drug user organisations	Lay expert	Norway
Pedroso [72]	"To comprehend the meanings constructed by Brazilian harm reduction workers regarding their practices with vulnerable populations amidst a context of political tension." (p. 1)	Semi-structured interviews	15 harm reduction workers employed in publc health services	Public health services including primary care, street outreach, drug treatment centres, transitional housing	Harm reduction worker, peer	Brazil
People with Lived Experience of Drug Use National Working Group 48]	To examine the benefits and negative aspects of working in harm reduction among people with lived experience of drug use	Qualitative surveys	50 people with lived experience of drug use working in harm reduction services	Harm reduction services	People with lived experience of drug use	Canada

Table 2 (continued)

First author (Year)	Study aim	Study design	Participants	Setting	Terminology for peer worker role	Country
Perreault [126]	To explore the impact of an overdose training program on people who use drugs and had not encountered situations post-training in which they could intervene	Semi-structured interviews	75 people who use drugs who had participated in overdose prevention training	Overdose prevention program	Peer helper	Canada
Piatkowski [82]	To explore how the micro- and macro-risk environments of the AoD sector impacts the work of peer workers	Semi-structured interviews	18 peers with lived-living experience of illicit drug use	AoD services	Peer worker, peer	Australia
Poliquin [73]	"To gain the perspectives of people who inject drugs on the adequacy of harm reduction services provided in Montreal" (p.378)	Semi-structured interviews and focus groups	30 people who inject drugs	Harm reduction services	Harm reduction worker	Canada
Resnick [127]	To establish a connection between attitudes towards people who inject drugs and attitudes towards peer workers in healthcare workers	Quantitative survey	101 healthcare workers with experience in hepatitis C management	Hepatitis C conference	Peer worker	Australia
Scannell [128]	To explore peer workers' experiences of providing substance use recovery support	Semi-structured interviews	10 peer support workers	Substance use and addiction services	Peer worker	USA
Sundaresh [129]	To improve medicine residents' attitudes towards patients with substance use disorders through education from peers with experience of substance use	Quantitative survey	31 internal medicine residents	Hospital	Peer	USA
Ti [130]	To summarise available evidence on engagement of people who use drugs in policy and program development	Narrative literature review	19 included studies	Various	Peer	Studies from Australia, Canada, Netherlands, UK, Ukraine, USA
Treloar [19]	"To examine the structural context of peer education and its implications for peer training" (p.248)	Focus groups and trials of education messages and strategies	18 people who inject drugs	Peer-led drug user organisation	People who inject drugs	Australia

Table 2 (continued)

First author (Year)	Study aim	Study design	Participants	Setting	Terminology for peer worker role	Country
Treloar [49]	"To examine the performance of two community-controlled peer support services" (p.993)	Semi-structured interviews	42 interview participants: • 31 clients of the service • 8 staff • 3 peer workers	Opioid substitution treatment clinics	Peer worker	Australia
Turuba [77]	"To understand the role of peer support in providing substance use services to youth and how best to support them in this role." (p. 2)	Focus group and semi-structured interviews	18 people who provide peer support to young people aged 12 – 24 based on their own lived experience of mental health and/ot substanace use • Focus group: 3 participants Interviews: 15 participants	Variety of settings including integrated youth services, schools, crisis support services, and mental health services)	Peer support workers	Canada
Wilson [131]	To identify the challenges of implementing peer worker programs, and solutions for overcoming them	Semi-structured interviews	17 interview participants: • 11 peer workers • 6 program managers	Harm reduction services	Peer worker	Canada

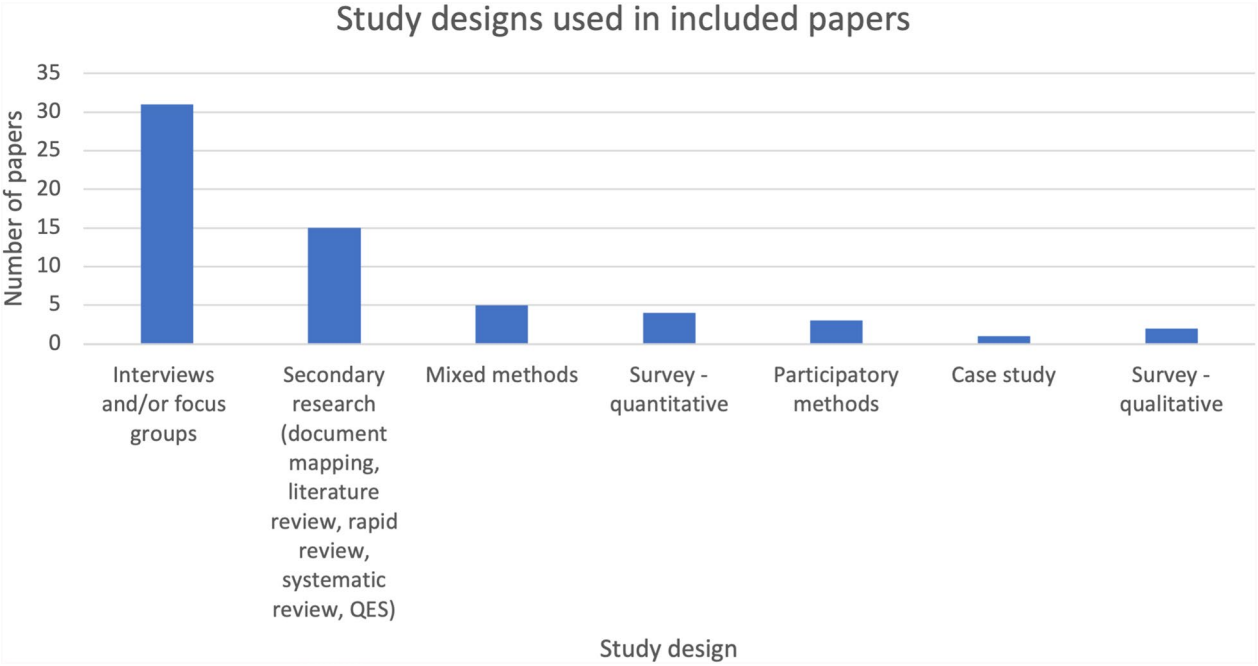

Fig. 2 Designs of included studies

and non-peer staff both internal and external to workplaces. Factors at this level can either be seen as supportive or as creating additional barriers for peer workers.

Interpersonal risk factors (n = 47, 77%)

Negative attitudes, behaviours or beliefs towards peer workers by non-peer workers was recognised most frequently as a significant barrier to peer work within workplaces (n = 35, 57%). *Negative attitudes, behaviours or beliefs* pertained to the stigmatising and discriminatory actions or comments made by non-peer staff towards peer workers such as beliefs that peer workers were untrustworthy, would threaten client recovery or possess skills necessary for the role [41, 62]. The need for, and legitimacy of, the peer worker role was also questioned by non-peer staff [56, 62–64]. *Negative attitudes, behaviours or beliefs* is closely tied to other factors affecting peer worker experiences in workplaces. For example, *lived-living experience not being acknowledged, valued, understood or delegitimised within workplaces* (n = 19, 31%).

Interpersonal protective factors (n = 27, 44%)

In contrast to the risk factors outlined above, included studies identified that *recognising and valuing lived-living experience and acknowledgment of meaningful labour* (n = 22, 36%) was a protective factor that enabled positive workplace experiences for peer workers. Recognising and demonstrating value for the peer worker role can take many different forms—most notably by providing *informal and formal practical and emotional support from management/supervisors and other non-peer worker staff* (n = 23, 38%).

Institutional level

The institutional level includes rules, regulations, policies, and informal structures within workplaces that constrain or promote peer worker experiences. Factors at this level shape the environment or conditions of the peer role that are within the organisation's control.

Institutional risk factors (n = 47, 77%)

Included studies reported *disparities between peer workers and non-peer staff* (n = 21, 34%). These include disparities in employment conditions such as inequitable or unequal pay [16, 48, 55, 57, 65–73], casualisation and volunteerism [17, 40, 46, 57, 61, 65–67, 69], lack of access to essential equipment required for the role (e.g., naloxone or clean injecting equipment) [46, 54, 61, 74, 75], and lack of available benefits such as leave or sick leave [40, 42, 57, 65, 66, 68]. Additionally, a *lack of tailored and ongoing training* (n = 20, 33%) around crisis management and use of equipment was identified which risked peer workers feeling under-prepared for their roles. Where training was provided, there was no guarantee it would be tailored to the role or the individual (e.g., accommodating low literacy levels).

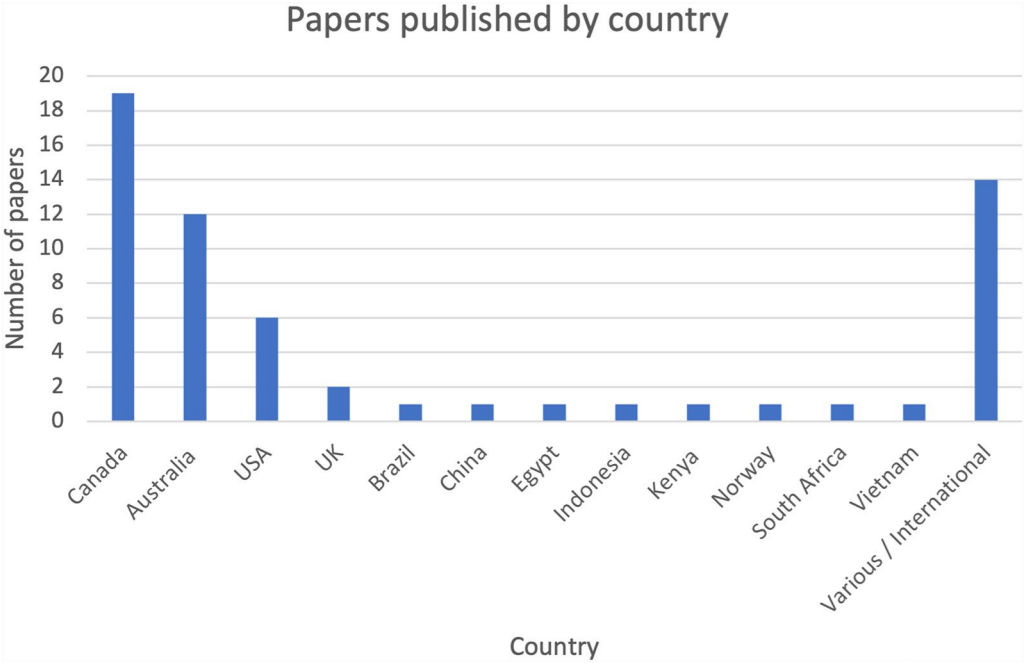

Fig. 3 Country of included studies

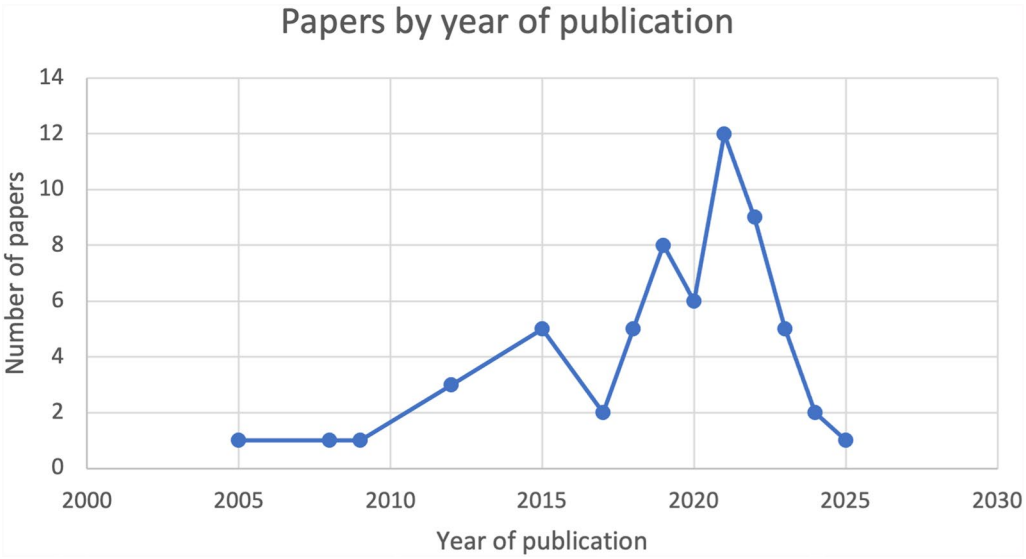

Fig. 4 Year of publication of included studies

Tokenism (n = 9, 15%) relates to organisations making minimal or no effort to make the work environment inclusive for peer workers, or organisations underutilising the unique skills and experience of peer workers. The employment of peer workers who use drugs was seen as tokenistic if their roles were limited to symbolic gestures or tasks that did not require peer workers to draw on their lived-living experience or were considered unnecessary or redundant. Ultimately, tokenism came down to a lack of meaningful involvement which in some instances lead to feelings of resentment, feeling undervalued, unwelcome and excluded from others and opportunities in the workplace [16, 53, 76].

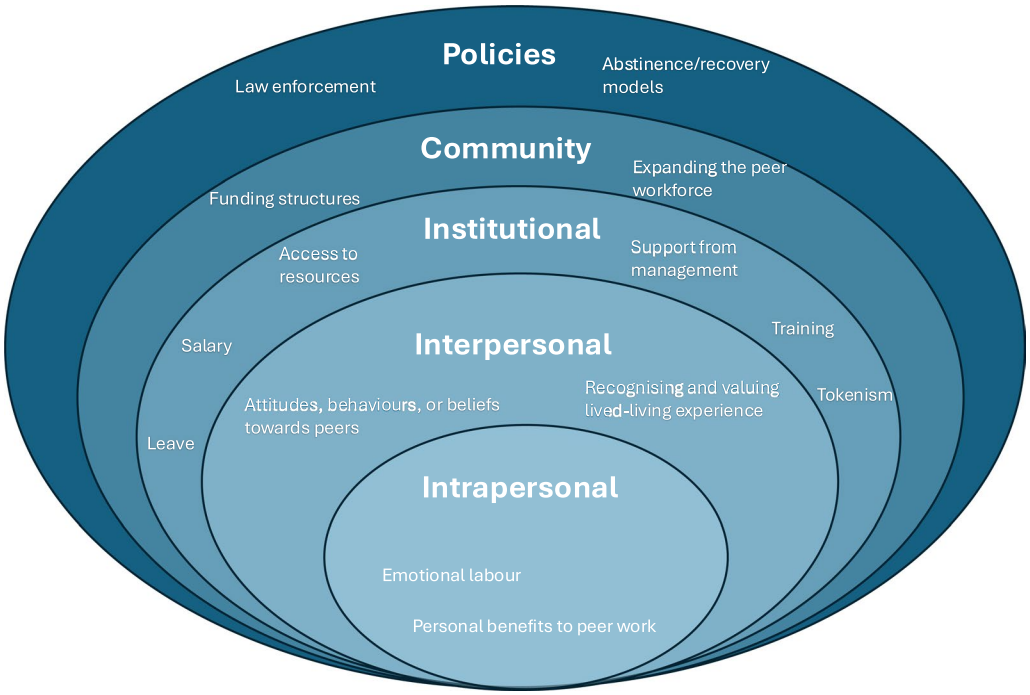

Fig. 5 Socioecological Model of Health. Adapted from Golden and Wendel [38]

Institutional protective factors (n = 47, 77%)

Key protective factors for peer work included *professional development opportunities* (n = 35, 57%) such as tailored training on administrative tasks, managing boundaries, crisis responses, and harm reduction principles [46, 53, 64, 77]. *Support from management* (n = 23, 38%), including flexible work arrangements and regular debriefs, enhanced job satisfaction [17, 42, 43, 66, 71, 77]. Collaborative environments that aligned peer and non-peer staff values, and involved peer workers in program development, fostered inclusivity and shared ownership of outcomes [62, 63, 78, 79].

Having well-defined communication pathways, clear processes for conflict resolution, and mechanisms for regular review of the peer role (n = 9, 15%) (e.g., giving peers the opportunity to provide feedback about the role and/or the programs they work in) was noted as a protective factor. This involved establishing regular and structured feedback loops to allow peer workers to voice and document experiences identified at the intrapersonal level (e.g., experiences tied to emotional labour). Establishing mechanisms of feedback also allowed for review of institution-level factors that could impact peer work, such as salary, training needs and opportunities, and opportunities for peer involvement in organisational planning or other peer-representative roles.

Community level

In line with the definition provided by McLeroy [33], the community level examines risk and protective factors that affect an aggregate of individuals in a geographic location, relationships amongst organisations and groups in a defined area (e.g., local governments, health care providers), and power structures influenced by geographic and political factors. Peer workers and peer-based organisations connect at a community level by geographic location, their connection to policy and service provider and the wider political sphere.

Community risk factors (n = 30, 49%)

A broader discussion emerged surrounding *limited or restrictive funding structures and arrangements* impacting peer workers and peer-based organisations (n = 16, 27%). This includes funding that preferences project or activity-based outcomes that are not based in the reality of peer organisations. Broadly, this factor speaks to insufficient budgets or inadequate allocation of resources for peer work—for example, an over reliance on peer work being part time or casual rather than full-time, short-term funding, lack of availability of resources necessary for peer work.

Limited and restrictive funding approaches often fail to reflect the broader and more nuanced work undertaken by peer workers and peer organisations. Additionally,

Table 3 Summary of Risk and protective factors by paper and SEM level

	Risk factors					Protective factors				
	Intrapersonal	Interpersonal	Institutional	Community	Policies	Intrapersonal	Interpersonal	Institutional	Community	Policies
Adams [118]	x	x	x	x	x		x	x	x	
Bardwell [67]		x	x			x	x	x	x	x
Bonnington [50]				x		x			x	
Brener [58]	x	x	x	x		x	x	x		
Brown [78]	x	x	x	x				x	x	x
Brown [79]						x	x	x		
Brown [119]			x			x	x	x		
Cama [45]		x	x			x	x	x		
Chang [16]	x	x	x	x	x	x		x	x	
Chapman [68]	x	x	x			x	x	x		
Chen [40]	x	x	x	x		x	x	x		x
Collins [51]	x	x				x				
Coupland [63]		x	x			x		x		x
Damon [76]		x	x			x	x	x		
Dechman [59]		x	x			x	x			
Englander [60]	x	x	x			x		x		x
Feige [61]		x	x		x	x	x	x	x	
Gillespie [120]	x		x	x	x	x		x		
Goodhew [62]		x	x	x	x	x		x		
Greer [65]		x	x	x	x			x		x
Greer [47]			x	x	x	x	x	x	x	
Greer [69]		x	x		x			x	x	x
Greer [64]	x	x	x			x		x	x	
Haw [121]		x	x	x		x				
Hilliard [121]	x			x	x		x	x		
Ibrahim [122]			x					x		
Iryawan [46]	x	x	x	x	x	x		x		x
Kennedy [57]	x	x	x			x	x	x		
Kolla [74]	x	x	x		x			x		
Lalane [52]	x		x			x	x	x		
Lee [123]	x	x	x	x	x		x	x	x	
MacLellan [53]	x	x	x			x	x	x		
Madden [41]		x		x			x	x	x	
Magidson [41]	x	x		x		x	x			
Mamdani [70]	x	x	x	x		x				

Table 3 (continued)

	Risk factors					Protective factors				
	Intrapersonal	**Interpersonal**	**Institutional**	**Community**	**Policies**	**Intrapersonal**	**Interpersonal**	**Institutional**	**Community**	**Policies**
Mamdani [54]	x	x	x	x		x		x		
Marshall [17]		x	x	x	x		x	x	x	
Marshall [75]	x		x			x		x		
Masese [55]	x		x	x	x	x		x	x	
Mercer [71]	x	x		x	x	x	x	x		
Miler [42]		x	x		x	x				
Ngo [80]	x	x	x		x	x				
Norman [124]	x	x	x	x		x		x	x	
Olding [66]	x	x	x	x				x	x	x
Ompad [125]		x		x	x		x			
Parkes [43]	x	x	x			x		x		
Pauly [44]						x		x		
Pedersen [56]	x	x			x	x				
Pedroso [72]		x	x	x	x	x				
PWLE Drug Use National Working Group [48]	x	x	x			x	x	x		
Perrault [126]	x	x	x			x				
Piatowski [82]	x	x	x	x	x		x			
Poliquin [73]		x	x	x		x		x		
Resnik [127]								x		
Scannell [128]		x	x	x		x		x	x	
Sundaresh [129]							x			
Ti [130]	x	x			x			x		
Treloar [19]		x	x	x				x	x	
Treloar [49]		x	x		x	x	x	x		
Turuba [77]		x	x			x	x	x	x	
Wilson [131]	x			x				x		
Total	33	47	47	30	23	43	27	47	18	9
%	54%	77%	77%	49%	37%	71%	44%	77%	30%	15%

organisations are often underfunded, or available funding is highly competitive, creating a significant strain for services with limited capacity. This shortage in available funding can limit the ability to provide adequate training, supervision and longer-term employment for peer workers, ultimately impacting the quality and sustainability of peer-led initiatives and programs at the community level. Underfunding may also reinforce stigmatising views by positioning peer work as undervalued or supplementary rather than as an integral part of healthcare and harm reduction. Peer organisations are often required to navigate requirements from multiple funding sources, or not receive core or ongoing funding which, like many community organisations, results in relying on small grants or funding opportunities. This has flow on effects such as restricting the ability to support or retain peers.

Community protective factors (n = 18, 30%)

Expanding and professionalising the peer workforce (n = 10, 16%) emerged as a key priority that enables peer work. This involves enhancing the capacity and recognition of peer workers within organisations and across the health and community sector by being aware of, and reducing, discrepancies between peer workers and non-peer staff. This can be achieved through both community and policy-level protective factors such as presence of qualifications/certifications for peer work, ensuring fair and equitable wages, comprehensive training, benefits such as leave and sick leave, as well as policies that cater to the protection of peer workers against discrimination in the workplace. Expanding and professionalising the peer workforce is fundamental to elevating peer work from informal or precarious work arrangements to more sustainable and equitable career pathways.

Policy level

This level outlines the broader systemic factors that operate external to both the peer worker and the organisation. These encompass societal, economic, and regulatory influences that shape the context in which both peer workers and peer organisations operate, impacting the peer role indirectly. Factors at this level include local, state, and federal policies and laws that regulate, restrict or support peer work.

Policy risk factors (n = 23, 37%)

Law enforcement practices, the criminalisation of drug use, and discriminatory policing (n = 18, 30%) impacts peer work directly and indirectly. Law enforcement practices and the criminalisation of drug use can impede the motivation and ability of people who use drugs to actively participate in peer work, in turn limiting expansion of the peer workforce. This factor also highlights a concern from peer workers about being identified by police as a person who uses drugs through their work and therefore more easily targeted [47, 80]. Moreover, these systemic issues place additional strain on peer-led organisations, and the constant threat of legal consequences (real or anticipatory) can inhibit the ability of peer workers to operate freely.

Preference for abstinence/recovery models (n = 14, 23%) was recognised as a systemic issue that often delegitimises the living (current) experience of illicit drug use by framing it as inherently problematic. For example, policies or practices that exclude people who are actively using drugs from spaces and discussions—such as those surrounding global drug policies, or workplace practices by enforcing legal requirements to employment such as criminal record or working with children checks—inherently favouring the voices of those who have lived (past) experience of drug use or have "recovered" as representatives [50, 81, 82]. While these individuals may offer valuable perspectives, it is important to note that, depending on the individual, representatives may no longer be connected to the communities they represent and so may limit their capacity to engage on their knowledge when engaging with affected communities. This exclusionary practice has the potential to perpetuate existing cycles of stigma and discrimination and may not best serve the ultimate outcome of supporting affected communities. More contemporary views and practices have shown the value of *reframing drug use* (n = 2, 3%) to enable peer work that is inclusive of lived and living experience.

Policy protective factors (n = 9, 15%)

Flexibility and trust from funders (n = 5, 8%) was identified as essential for being able to tailor outputs to better align with the value, time and resources required for peer work to thrive and be valued both within peer organisations and more mainstream organisations. Flexible funding that enables organisations to hire and support peer workers would be a significant step forward [19]. For example, funding that covers training, safe work environments, and providing adequate resources and support that can assist peer workers in navigating challenges, such as multiple and complex health issues, and interactions with the legal/justice system. Seeking insights from peer-based organisations directly is critical for influencing policy, but this is a high bar for organisations that are underfunded and navigating marginalised illicit drug cultures and stigma. Furthermore, peer organisations provide essential real-time insights into emerging community issues and drug trends, which, when properly funded, could influence more effective policy development.

Discussion

This review identified critical factors influencing the experiences of peer workers with a lived-living experience of drug use and/or BBVs as they relate to workplace stigma and discrimination across five levels of the SEM: Intrapersonal, Interpersonal, Institutional, Community and Policy.

At the intrapersonal level, emotional labour (highlighted in 34% of studies) emerged as a significant barrier, particularly in workplace and interpersonal contexts. In line with the findings of this review, emotional labour involves the management or suppression of one's own emotions and explores how workers' emotions can be commodified as workers are expected to act and feel in ways which meet organisational demands – a concept relevant to those working in healthcare and/or harm reduction settings [83–85]. While often being a critical part of the interpersonal aspects of peer work that workers value, such as concepts of role modelling and "walking alongside" clients [86]. Emotional labour as a risk factor highlights how peer workers often face the burden of managing personal and professional boundaries and has been explored in previous literature relating to peer work in mental health settings [86, 87]. The emotional labour experienced by peer workers in mental health settings is similarly framed as being connected to distress relating to the role or other emotional reactions to the prejudices or preconceived ideas, perceptions or actions about peer workers from non-peer staff. As seen in this review, risks from emotional labour may be mitigated through support for peer workers at the institutional level, particularly related to communication practices, conflict resolution, acceptance of peer worker feedback about their role and experiences and regular review of the peer worker role. In both this review and in previous literature, 'emotional labour' recognises the multifaceted nature of experiences that contribute to both positive and negative workplace experiences, and demonstrates a persistent tension between upholding identity as a peer worker and effort to uphold professional legitimacy [86, 87]. An aspect of emotional labour discussed in previous literature was the active management of social relations to generate desired impressions, avoid undesired impressions, and ease people's emotional responses, which requires significant physical and emotional energy [87]. Although this may be true, throughout the literature in this review, experiences of generating, managing or avoiding undesired impressions by non-peer staff have not been explicitly identified.

At the interpersonal level, *Negative attitudes, behaviours or beliefs* towards peer workers by non-peer workers emerged most frequently as a risk factor for peer work (n = 35, 57%). Support by non-peer staff towards peer workers is an essential component for the implementation and success of peer support programs, and can be impeded by barriers embedded into organisational culture [88, 89]. These attitudes may also be influenced by wider systemic issues, such as those identified at the institutional, community or policy levels of the SEM. Regardless of setting (i.e., mental health or harm reduction), peer workers seem to encounter similar negative attitudes, beliefs or behaviours including concerns of non-peer staff about compromised privacy/confidentiality or differences in employment conditions [89]. This may be suggestive of how being employed due to lived-living experience is viewed more generally but may highlight inherent tensions between non-peer and peer worker staff. These tensions may be more pronounced in instances where peer workers lived-living experience involved behaviours that are highly stigmatised and criminalised.

Peer workers with lived-living experience of hepatitis C may face stigma and discrimination. However, it is important to note that the experience of people with lived-living experience of hepatitis C may differ significantly from those with lived-living experience of illicit drug use. Unlike peer workers with a lived-living experience of BBVs who do not use drugs, peer workers who have, or do use drugs may face additional resistance in workplace integration, as their roles inherently acknowledge and validate a behaviour that remains stigmatised and criminalised. This generative tension underscores the complexities of peer work in the context of drug criminalisation, which, if not addressed, may continue to create barriers to the full acceptance and integration of peer workers within broader health and social care settings. This distinction can be critical, as individuals with lived-living experience of BBVs without a history of illicit drug use may face less severe workplace stigma. People who use drugs with a history of incarceration may face increased stigma and discrimination in the workplace, influenced by their experience of illicit drug use and history of incarceration [16, 17]. Specific research into attitudes, beliefs and behaviours towards peer workers from non-peer staff in the context of harm reduction and peer work as it relates to BBVs or drug use is necessary to further understand the impact on peer workers and peer programs, and highlight drivers to reduce this [78, 90]. More broadly, these nuances in stigma and discrimination highlight the need to consider the intersectionality and diversity of lived-living experiences when assessing the challenges in the role of peer workers in BBV care.

The institutional level organisational decisions, choices, settings, arrangements, practices that directly influence the experiences of peer workers. The institutional level is the largest level in terms of content, with 77% of included studies mentioning risk and protective factors,

highlighting that many factors influencing the experiences of peer workers are in control of organisations. The institutional level highlights factors that influences and shapes trust and value in work and organisations, and in particular how factors influence both peer workers and non-peer staff in and around organisations. Further, this level suggests that organisational values, behaviours, and choices can perpetuate or challenge attitudes of stigma and discrimination at the individual level.

The most frequently occurring risk factor emerging at the institutional level was *disparities in working conditions between peer workers and non-peer staff* (n = 21, 34%), which focuses on contractual and non-contractual discrepancies including lack of leave benefits, pay, inconsistent scheduling/rostering or locations, lack of long-term opportunities, allocation/distribution/lack of access to resources, or safeguarding against workplace risks. In contrast, the most frequent protective factor is ensuring *professional development opportunities* (n = 35, 57%). This included the provision of initial and ongoing informal and formal/accredited training and support around elements of the role such as administration, crisis/emergency responses, workplace policies, and content knowledge (e.g. hepatitis C, safer injecting/harm reduction including the realities of drug use (morbidity/mortality)). The identification of disparities in working conditions as a key risk factor aligns with broader literature regarding peer work, which has consistently highlights challenges such as job insecurity, unequal pay, and lack of formal employment protections for peer workers [91, 92]. Similarly, the emphasis on professional development as a protective factor is supported by previous studies that recognise ongoing training and capacity building as essential for peer worker retention and effectiveness [92]. These findings reinforce the need for structural interventions, such as clear employment frameworks and training programs, to support peer worker integration.

Establishing guidelines for peer worker roles is recognised as a way of providing greater structure and transparency for the role and the relationships between peer worker and non-peer staff, to overcome some of the organisational-level risk factors that peer workers may experience [2]. This includes developing frameworks for employment and onboarding, management and supervision, career pathways and training opportunities for peer worker and non-peer staff (around the peer worker role), ensuring role clarity and effectively communicating this across the organisation to avoid role confusion which may also alleviate or overcome risks identified at the intrapersonal level [2, 93, 94]. Although many resources exist for engaging peers in mental health settings [95–97], guidelines for the employment of peer workers with a lived-living experience of illicit drug use and/or BBVs is sparse. Existing resources primarily exist within harm reduction models in which DUOs operate [93, 95], rather than "mainstream" health services, where peer workers may be at risk of greater occupational harms due to less organisational understanding of the peer worker role [98–100]. Recent initiatives, such as the Australian Injecting & Illicit Drug Users League (AIVL) framework for peer workforce development, [101] and Harm Reduction Victoria's FUSE initiative, which provides training and professional development for peer workers [99], are recent examples of guidance related to the peer worker role that is working to fill these gaps. Development and implementation of best practice guidelines for employing peer workers with a lived-living experience of BBVs and/or illicit drug use would support more consistent and equitable employment experiences for peer workers. This is particularly important as the demand for peer workers grows in response to global hepatitis C elimination efforts, and more peer worker roles are established outside of harm reduction and drug user services.

From the findings, a broader discussion emerged surrounding *funding structures and arrangements*. It was noted that funding agreements are typically managed, monitored and funded as purchaser/provider agreements with narrowly framed timelines and service provision or project-based outcomes. Although peer work is recognised as essential for harm reduction, there has been a decline in funding for harm reduction services with 1.6% of state and federal expenditure in Australia being administered toward harm reduction services in 2021–2022 from 2.2% [102, 103]. It is also important to acknowledge that in practice, peer organisations must navigate multiple spheres of funding. For example, despite the distinct histories and separate origins of lived-living experience programs in harm reduction and mental health, at a funding, policy, and government department level, these areas often intersect. A recent example of this has been Harm Reduction Victoria's involvement in the Victorian State Government's Lived and Living Experience Workforce Advisory Group and related initiatives [104, 105], which arose out of recommendations from the Royal Commission into Victoria's Mental Health System. Peer organisations in harm reduction frequently navigate both areas of policy and funding, requiring an understanding of the different policy contexts while facing common funding challenges which makes flexibility and trust from funders all the more important. Flexibility and trust from funders was identified as essential for tailoring outputs that better align with the value, time and resources required for work within peer-based organisations. The need for flexibility in funding for organisations is particularly critical given the social and economic challenges and complexities many peer workers must navigate for

formal employment [64, 106]. Studies have highlighted that peer workers are often embedded in communities experiencing multiple and complex health and social issues, including housing instability and mental health challenges, which can make traditional, rigid employment structures difficult to sustain [17]. Furthermore, concerns around surveillance and potential legal repercussions can deter individuals from engaging in formally structured roles, necessitating funding models that allow for flexibility in employment arrangements and service delivery [107]. Flexible funding would be a step in recognising that peer workers are drawn from communities under pressure, and insights and guidance from peer workers and peer-based organisations are crucial in shaping relevant service delivery and policy.

The policy level captures the sociopolitical aspects of stigma and discrimination experienced by peer workers, especially those with a lived-living experience of illicit drug use. Whilst there is a variance between risk and protective factors at the policy level (26 studies mentioned risk factors, nine studies mentioned protective factors), change in policy is critical for sustaining and enabling peer work.

A major area of policy-level risk for peer workers with lived-living experience of illicit drug use and/or BBVs is *law enforcement*. This risk seems to be unique to peer workers with lived-living experience of illicit drug use, when compared to the literature on occupational risks for peer workers with experience of other types of mental and physical health conditions. However, there may be parallels with mental health peer workers, who have reported experiences of workplace stigma and discrimination associated with involuntary treatment [108]. Engaging people who use drugs in the prevention, testing and treatment of BBVs (a primary task of peer workers) can be impeded by law enforcement practices aligned with punitive action and drug laws, and not principles of harm reduction [94, 109]. Strict policing practices can include confiscating equipment such as needles and syringes, or the surveillance of programs that engage people who use drugs, undermining harm reduction efforts [110]. Additionally, the use of police checks and Working with Children Checks as part of recruitment practices within organisations, can deter people with lived experience of drug use from applying for peer worker roles or expose peer workers who have had contact with law enforcement or the justice system to workplace stigma and discrimination [82]. risks can place an additional strain on peer workers as both users of, and workers in, harm reduction programs. The risks associated with law enforcement seems to be more pronounced for peer workers with lived-living experience of illicit drug use, when compared to the literature on occupational risks for peer workers with experience of other types of mental and physical health conditions. However, there may be parallels with mental health peer workers, who have reported experiences of workplace stigma and discrimination associated with involuntary treatment [108].

In relation to law enforcement related-risks, there is an emerging body of evidence suggesting a move away from traditional enforcement strategies towards a greater focus on harm reduction, which includes frontline officers carrying naloxone and outward support for needle and syringe programs and drug safety testing in some countries [111, 112]. For example, Portugal's success in decriminalising drug possession has fostered an environment where law enforcement officers support, rather than hinder, harm reduction efforts [113, 114]. Law enforcement officers are trained to divert people who use drugs to appropriate services, while also carrying naloxone to respond to overdoses [115]. This harm reduction-focused approach, which includes needle and syringe programs and supervised consumption rooms, has been associated with significant reductions in drug-related mortalities and BBV transmission [113]. The critical impact that law enforcement can have on the success of peer work, and the occupational health and safety of peer workers, highlights the need for systematic inclusion, participation and collaboration with law enforcement in harm reduction advocacy and service delivery [106]. However, without significant drug law reform that addresses prohibition and policing of drug use, it is likely that law enforcement will remain a significant barrier to peer work, and an occupational risk for peer workers, particularly in countries with harsher penalties for drug-related offences [80, 116].

Strengths and limitations

The key strength of this scoping review is the involvement of highly experienced harm reduction and BBV peer workers from Australian state and national drug user organisations. Peer workers and their organisations helped devise the research question for the review, assisted with interpretation of the findings, and guided development of the discussion section of the manuscript. Crucially, they are co-authors on the review. Involvement of peer workers, who are both people with lived and living experience of the topic of this review, and who will be end users of this research, means the findings more accurately represent peer worker experiences of stigma and discrimination. It has also assisted with understanding, shaping and communicating recommendations for future practice, policy and research.

A key limitation of the review is that a protocol was not peer reviewed or published in advance of commencing the review, which may reduce transparency and

reproducibility of the review methods. To address this limitation, the review methods have been described in detail in this article, and search strategies and data collection frameworks have been provided as additional files. Additionally, because this is a scoping review, the quality of included studies has not been appraised [117] which limits the ability to develop robust recommendations for practice based on findings of the review.

Conclusion

To our knowledge, this is the first scoping review to map literature on stigma and discrimination experienced by peer workers with a lived-living experience of illicit drug use and/or BBVs. Peer workers are pivotal in ensuring that health and other care effectively bridge gaps and respond to the needs of their often marginalised service users. This review highlights that workplace stigma and discrimination towards peer workers can take many different forms. Factors that sustain stigma and discrimination can be addressed through adequate planning and development of systems that create safe, and fair work environments for peer workers. Whilst some factors may be outside the control of organisations, addressing organisational risk factors that are barriers to peer work can help foster positive and safer workplace cultures within organisations and assist with the expansion and professionalisation of the peer workforce.

This review emphasises the need for progressing interventions that can prevent or reduce workplace stigma and discrimination against peer workers at all levels of the SEM. In particular, major progress can be made at the institutional and policy levels which can then impact on the interpersonal and community levels. While factors uncovered at each level are both complex and interconnected, addressing the risks and leveraging protective factors is essential to advance harm reduction efforts and the role of peer workers with a lived-living experience of drug use and BBVs in Australia and internationally.

Supplementary Information

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Additional file 1.

Additional file 2.

Additional file 3.

Additional file 4.

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Author contributions
SC, JR, EA, JW, AP and LW conceived the study. SC and LW conducted the search. SC, JR, EB, EA, PA and LW conducted the screening. SC, EB and LW conducted the data extraction and data analysis. SC and LW wrote the first draft of the manuscript, and integrated feedback from co-authors into subsequent drafts. All authors provided input into the study design, reviewed and edited multiple versions of the manuscript, and approved the final version of the manuscript. All authors have read and agreed to the published version of the manuscript.

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Availability of data and materials
The dataset supporting the conclusions of this article is included within the article and in Additional File 2 and Table 2. Data extraction template is provided in Additional File 3. The full Endnote Library of all screened studies is available on request.

Declarations

Ethics approval and consent to participate
Not applicable.

Consent for publication
Not applicable

Competing interests
JR, EA, JW and LW received an unrestricted investigator-initiated grant from Gilead Sciences Inc. to undertake this study. AP has received investigator-initiated grants from Gilead Sciences Inc. and AbbVie, and speaker fees from Gilead Sciences Inc. for unrelated work. JR has received speaker fees from AbbVie and Gilead Sciences Inc. for unrelated work. JW has received funded by Gilead Sciences Inc. for an unrelated project.

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