REVIEW





Homelessness and people with intellectual disabilities: A systematic review of the international research evidence



¹School of Nursing and Midwifery, Queen's University Belfast, Belfast, UK

²School of Nursing and Midwifery, University of Dublin, Trinity College, Dublin, Ireland

Correspondence

Professor Michael Brown, School of Nursing and Midwifery, Queen's University Belfast, Northern Ireland, United Kingdom. Email: m.j.brown@qub.ac.uk

Abstract

Background: People with intellectual disabilities can experience homelessness, and some of the reasons differ from the general homeless population. Specific policy and practice responses are required.

Method: A systematic review of studies examining homelessness among people with intellectual disabilities utilizing CINAHL, MEDLINE, PsycINFO and Sociological Abstracts databases from inception to November 2019.

Results: The search produced 259 papers, and following screening, a total of 13 papers were included in the review. The themes identified were (i) pathways into homelessness, (ii) experiencing homelessness and (iii) routes out of homelessness.

Conclusions: People with ID become homeless due to multifactorial issues. The identification of people within homeless services and their care and support concerns remains challenging, impacting upon the provision of assessments, interventions, care and supports. Psychosocial assessments, interventions and supports are necessary to assist people with ID to leave homelessness.

KEYWORDS

health needs, homelessness, intellectual disabilities, social exclusion, stigma, supports

1 | INTRODUCTION

There is a growing global focus and concern regarding the issue of homelessness. Homelessness involves living between shelters, in the homes of friends, on the streets, in emergency accommodation and in boarding houses without a private bathroom and security of tenure (Crisis, 2018). The World Health Organisation defines homelessness as living in housing that is below the minimum standard or lacks secure tenure (World Health Organisation, 2018). It is estimated that 150 million people are homeless world-wide; however, exact prevalence remains difficult to determine (Bainbridge & Carrizales, 2017; Busch-Geertsema et al., 2016; Wilson et al., 2019). Homeless people across age cohorts have been identified as experiencing poor self-reported health, increased access to health services and significant health-related needs (van Dongen et al., 2019). The pathways into homelessness are multifactorial and include poverty, conflict with the law, unemployment, low income, reduction in income, evictions, relationship breakdown, serious illness

and natural disasters (Levine et al., 2018; McCann & Brown, 2019; Phipps et al., 2019; Piat et al., 2015). It has been estimated that 30%-40% of homeless adults have a cognitive impairment, including people with intellectual disabilities (ID) (Spence et al. 2017). In a systematic review focusing on homelessness and people with a range of cognitive impairments, the homeless groups identified were people with traumatic brain injury, learning difficulties, ID, autism spectrum disorder and attention deficit hyperactivity disorder. The review identified that across the cognitively impaired groups, there is inadequate recognition of co-occurring disorders and therefore the full extent of the needs, highlighting the necessity for additional resources and support (Stone et al., 2019). The exact prevalence of homelessness within the ID population remains unclear; however, estimates range from 12% to 39% (Durbin et al., 2018). In addition, the risk factors and pathways resulting in homelessness for people with ID need to be fully understood, and it has been suggested that there is no single factor that results in homelessness (Stone et al., 2019).

Most people with ID live at home with their family; however, some individuals live in congregated institutional and other supported living settings (Salmon et al., 2019). In many countries across the world, there have been significant changes and developments with moves away from institutional models of care to care and support being provided in the community, enabling people with ID to live independently. However, congregated care remains evident in some countries (Woodman et al., 2014). As the ID population ages, more people may require access to care and support from education, housing, social welfare and healthcare services (Cronin & Bourke, 2017). Many people with ID are significantly disadvantaged in relation to education attainment, employment opportunities, dependence on state welfare and benefits and public housing (Ditchman et al., 2016; Hourigan et al., 2018). Collectively, these issues contribute to poverty, low social status and standing, limited employment opportunities and community participation (Maroto et al., 2019; Park et al., 2017).

From a health perspective, people with ID are further disadvantaged by their diverse physical and mental health conditions that contribute to their poor health and premature death (Cooper et al., 2015; Hughes-McCormack et al., 2018). Physical health conditions are particularly common and include for example, respiratory disorders, epilepsy, gastro-intestinal conditions and cardiovascular disease (Truesdale & Brown, 2017) Mental ill health is common due to issues such as adverse life events and environmental stressors including sexual abuse, violence and poverty (Koswloski et al., 2016). Diagnosing mental illness can be difficult due to communication deficits, physical health conditions and diagnostic overshadowing (Whittle et al., 2018). As a consequence of their physical and mental health conditions, people with ID require access to health assessment and screening that identifies their distinct needs and to provide evidence-based interventions, treatments and supports (Robertson et al., 2014). Support is required to facilitate the care journey through the healthcare system, thereby ensuring that they have equality of access and improved health outcomes (Williamson et al., 2017). Significant gaps still exist in the full understanding of these pertinent issues upon homelessness. Therefore, the aims of this systematic review are to more fully understand the factors that lead to homelessness for people with ID, their experiences while homeless and their support needs out of homelessness.

2 | METHOD

2.1 | Review questions

The specific questions that the systematic review sought to address were as follows:

- 1. What are the factors that lead into homelessness for people with ID?
- 2. What are the experiences of people with ID when homeless?
- 3. What are the necessary supports to enable people with ID to exit homelessness?

TABLE 1 CINAHL search strategy

Search code	Query	Results
S1	Intellectual disab*	21,600
S2	Mental retard*	2,939
S3	Developmental disab*	10,030
S4	Mental handicap*	438
S5	Learning disab*	7,537
S6	Homeless*	9,488
S7	Homeless persons	4,907
\$8	S1 OR S2 OR S3 OR S4 OR S5	35,355
S9	S6 OR S7	9,488
S10	S8 AND S9	59
S11	Limiters: English, peer-reviewed articles	

The * relates to the abbreviation used as standard within a search strategy.

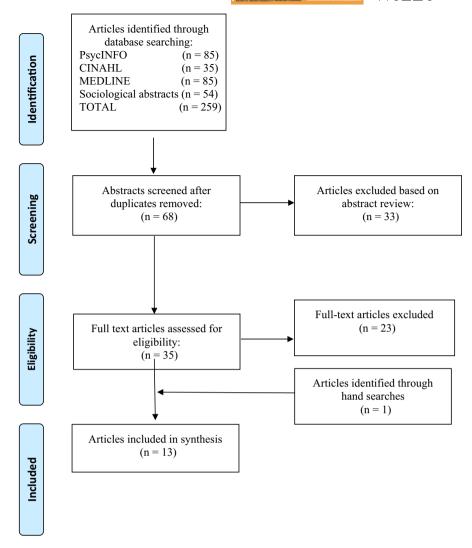
2.2 | Search strategy

The systematic review included empirical studies that used quantitative, qualitative and mixed research methods. A subject librarian was consulted to help with the literature search process. The databases utilized in the search were CINAHL, MEDLINE, PsycINFO and Sociological Abstracts. The search terms included: homeless* AND intellectual disab* OR mental retard* OR developmental disab* OR mental handicap* OR learning disab*. The data were published from inception to November 2019. The inclusion criteria were limited to academic journals, peer-reviewed empirical studies written in English and included homeless people with an intellectual disability. Papers that specifically focused on traumatic brain injury, mental illness, special educational needs and learning difficulties were excluded. Included studies had to focus on the homeless experiences of people with intellectual and developmental disabilities; those that did not meet the criteria were rejected. An example of the search strategy used in one electronic database is shown in Table 1.

2.3 | Study selection

The *PRISMA* process for reporting the results of the searches was used (Moher et al., 2015) (Figure 1). The searches revealed 259 cumulative hits across all of the databases. The computer programme *Endnote* was used in the management of the search results (Clarivate Analytics, 2018). Two independent reviewers screened the titles for relevance, and duplicates were removed leaving 68 papers. Following a review of the abstracts by the two reviewers, a total of 35 full-text articles were assessed against the eligibility criteria and a further 23 excluded, leaving a total of 12 papers. Full-text papers were screened independently be the reviewers and then jointly to resolve and disagreements. Studies were included if they specifically addressed factors leading to homelessness, the experiences of people with ID when homeless and the supports required to exit

FIGURE 1 PRISMA flowchart of search strategy and outcome (Moher et al. 2015)



homelessness. The main reasons for exclusion were that the study sample included homeless people with learning difficulties, mental illness or youth with special education needs. A further paper was identified by hand searching, leaving a total of 13 included in the full review and synthesis.

2.4 | Study characteristics

The thirteen studies focused on the aims of the systematic review, as set out in Table 2. The studies were undertaken across a wide range of countries including Japan (n=3), Netherlands (n=3), United Kingdom (UK) (n=2), Canada (n=1), United States (US) (n=2), India (n=1) and Mozambique (n=1). Sample sizes ranged from 4 to 114 participants. Most studies (n=7) used a mixture of methods involving interviews and standardized scales (van Straaten et al., 2014; Nishio et al., 2015; Gouveia et al., 2017; Nishio, et al., 2015; Nishio et al., 2017; van Straaten et al., 2017; van der Laan et al., 2018). One study used case records, interviews and standardized scales (Oakes & Davies, 2008). Two studies used case records (Gowda et al., 2017; Mercier & Picard, 2011), and three studies

used semi-structured interviews (McKenzie et al., 2019; Morton & Cunningham-Williams, 2009; Morton et al., 2010).

2.5 | Critical appraisal

The two reviewers jointly appraised the included studies utilizing a recognized quality assessment tool, the *Critical Appraisal Skills Programme* (CASP), as an evidence-based framework (Critical Appraisal Skills Programme, 2013). This approach was chosen to allow for the synthesis of both qualitative and quantitative data to produce a systematic review of the research evidence. A range of questions were systematically applied to each of the studies (Table 3). Individual questions were scored zero, one or two from a possible overall score of twenty. Studies containing no information were given zero, a score of one for a limited amount of information and a score of two if the question was answered comprehensively (Rushbrooke et al., 2014). A total of eight studies achieved scores of 17 and above, indicating good quality and relevant information (van der Laan et al., 2018; McKenzie et al., 2019; Morton & Cunningham-Williams, 2009; Nishio et al., 2017; Nishio, et al., 2015; Nishio, et al., 2015; van Straaten et al., 2017; van Straaten



TABLE 2 Papers included in the review (n = 13)

Study Citation and Country	Aims	Sample	Data collection design and methods
Oakes and Davies (2008) UK	Identify the prevalence of ID within a homeless population.	Homeless people ($n = 50$) ID ($n = 6$)	Cross-section design using case records, interviews and standardized scales
Morton and Cunningham-Williams (2009) USA	Examine the capacity to consent in homeless people with ID using a capacity-to-consent screening tool	People with ID (n = 62)	Cross-section design using semi-structured interviews
Morton et al. (2010) USA	Identify whether volunteerism among homeless people in ID services supports community integration	People with ID $(n = 60)$	Cross-section design using semi-structured interviews
Mercier and Picard (2011) Canada	Identify the characteristics, history and current living situation of homeless people with ID.	People with ID (n = 68)	Case study design using case records
Van Straaten et al. (2014) Netherlands	Identify prevalence of homelessness in Dutch people with ID and the relationship with psychosocial issues	Homeless adults (<i>n</i> = 387) ID (<i>n</i> = 114)	Cross-section design using interviews and standardized scales
Nishio, et al. (2015) Japan	Explore the prevalence of mental illness and ID among homeless people in Japan	Homeless men (n = 18) ID (n = 7)	Cross-section design using interviews and standardized scales
Nishio, et al. (2015) Japan	Investigate the prevalence of mental illness and ID in homeless people in Japan.	Homeless people (<i>n</i> = 114) ID (<i>n</i> = 39)	Cross-section design using interviews and standardized scales
Gouveia et al. (2017) Mozambique	Explore mental health status of homeless people including people with an intellectual disability (ID).	Homeless people ($n = 71$): ID ($n = 4$)	Cross-section design using interviews and standardized scales
Gowda et al. (2017) India	Examine case files of homeless mental ill patients, including people with ID, admitted to mental health services in India.	Patients (n = 78) ID (n = 24)	Case study design using case records
Nishio et al. (2017) Japan	Investigate the relationship between homelessness and ID.	Homeless people (<i>n</i> = 114) ID (<i>n</i> = 39)	Cross-section design using interviews and standardized scales

Key Findings Recommendations More people with ID were found to be homeless in this study compared Further research is required to identify effective interventions to the general population. Following full IQ testing, six of the study and supports for people with ID who are homeless and may be participants had a diagnosable ID. Significant cognitive impairment and difficult to identify. Practitioners need to be aware of specific educational deficits and development needs were identified. A diagnosis issues affecting people with ID who are homeless. Use of validated assessment tools in routine practice to identify ID and specific of ID is a potential risk factor for homelessness. support needs required. Need to be improved interagency and service collaborations. People with ID had enduring homeless issues with a mean age was More enabling approach to obtaining consent that protects 32 years; the majority were African American and male. 55 per cent and assists people with ID with capacity issues and complex were unemployed and 60 per cent living on the streets. 40 per cent decision-making is required. Further research needed regarding experienced long-term homelessness. Half of the sample unable to give the prevalence of homeless in ID populations and psychosocial informed consent to participate in research, many due to low educational issues. Researchers need to be sensitive to and adapt consenting attainment. procedures to be able to include people with ID in research studies. Access to school records may assist in the assessment process. Sample mainly male. African American (93%), low educational attainment. There is a need for qualitative research to identify possible benefits of volunteering for people with IDD who are homeless. Further Homeless ID people volunteer more than the general population in church meal programmes as means of giving back rather than developing research required on substance use and mental illness in ID employment skills. Visiting friends or family monthly increased volunteers to identify potential impact and supports required. volunteering, unemployment decreased volunteering. Volunteering supports healthy community integration. People with ID have multiple issues that lead to homelessness. 63% were More homelessness prevention programmes needed and men, 30% women, mean age was 43 years. 78% had attended special intervention and support strategies required. Further public education provision, 63% homeless for more that 4 years. Mental illness health research needed regarding homelessness and ID. More (60%), substance misuse (56%), physical health issues (43%), relationship epidemiological studies needed to identify the risks associated breakdown (31%) and criminal justice contact (31%) were key issues. with homelessness and intellectual functioning. Women have shorter periods of homelessness compared to men. Once identified as having ID with homeless service, their situation improved with support. More homeless males with ID and higher than the general population. Screening required to identify people with ID who are homeless. Low education attainment. Higher somatization rates and depression in Need greater psychosocial treatments, supports and special ID people, with more stress in older participants. Twice as likely to have housing support. Require specialist ID professional input based substance misuse issues. Alcohol use most commonly used substance. within homeless services. Customized support programmes and Links between substance misuse and mental health issues. Greater specialist housing may be needed. vulnerability and risk factors among homeless ID. Men with ID became homeless on average at the age of 54 years Increased support necessary, including psychological therapies and compared to 59 years in the non-ID population. Over 70% of ID people treatments to address homeless issues specific to people with ID. also had mental health issues including alcohol dependence, depression, mood disorder and PTSD. 42% of all participants had mental illness. 16% had mental illness and ID Need appropriate psychosocial strategies, interventions and including schizophrenia, mood disorder, anxiety disorder, substance use supports specific to the needs of people with ID within homeless and personality disorder. People with ID smoke more. Only people with services to address their mental health and psychological issues ID reported wanting to remain homeless. and concerns. People with ID had less successful family reintegration. Burden, shame and Need integrated and well coordinated supports for people with ID

stigma were possible influencing factors. Transcultural interpretations

Patients with ID were negatively co-related with family reintegration. Unable to trace the fail in 55% of cases. People with ID may be unable to verbalize their original home address and therefore remain unintegrated back into the family home.

were significant.

34% had an ID, and 16% had ID and mental illness. Poor family relationships led to homelessness for people with ID. People with mental illness and poor relationships more prone to homelessness and get trapped. ID and homelessness linked to low educational attainment.

who are homeless. Further research required to fully understand homelessness, support needs and possible psychosocial interventions.

Need for national services strategy and plan for people with ID who are homeless to identify and address socioeconomic, health and human rights issues that result in homelessness.

Improved access to supported housing appropriate to the needs of people with ID required. Access to mental health treatments and assertive community treatment programmes and employment needed.

TABLE 2 (Continued)

Study Citation and Country	Aims	Sample	Data collection design and methods
Van Straaten et al. (2017) Netherlands	Identify self-report care needs of Dutch homeless people: Follow-up study.	Homeless adults (n = 336) IDD (n = 104)	Cross-section design using interviews and standardized scales
Van der Laan et al. (2018) Netherlands	Explore the perceived health needs in homeless people.	Homeless adults $(n = 344)$ ID $(n = 102)$	Cross-section design using interviews and standardized scales
McKenzie et al. (2019) United Kingdom	Identify the views of staff and people with ID regarding support needs and the use of an ID screening	People with ID $(n = 8)$ Support staff $(n = 16)$	Cross-section design using interviews

et al., 2014). Scores of between 14 to 16 were given to three studies thereby showing deficits related to clarity of aims, recruitment issues, data collection and analysis (Gouveia et al., 2017; Morton et al., 2010; Oakes & Davies, 2008). The remaining two studies had scores of thirteen or less indicating shortcomings on most questions (Gowda et al., 2017; Mercier & Picard, 2011). Any disagreements regarding the quality assessment were discussed by the reviewers and consensus reached. All of the studies identified addressed the objectives of the systematic review and were therefore deemed suitable for inclusion.

questionnaire.

2.6 | Data analysis and synthesis

An analysis of the data was undertaken by the reviewers using an inductive process whereby the emergent themes were systematically identified within and across all the studies and coded by the two researchers. The content was grouped into concepts to allow for contrasts and comparisons to be made between and across the studies and the identified themes. The emergent themes were identified independently and then discussed, verified and agreed by the reviewers (Caldwell et al., 2011).

3 | RESULTS

3.1 | Following detailed analysis, the main themes identified were (i) pathways leading into homelessness, (ii) experiencing homelessness and (iii) routes out of homelessness

3.1.1 | Pathways leading into homelessness

A total of 11 studies addressed pathways into homelessness for people with ID. People with ID who are homeless are a sub-population of an already difficult group to identify. Therefore, the exact prevalence of people with ID who are homeless remains inconclusive (McKenzie et al., 2019; Morton & Cunningham-Williams, 2009). Three studies included in the current review attempted to identify prevalence rates (Mercier & Picard, 2011; Nishio, et al., 2015; Oakes & Davies, 2008; Van Straaten et al., 2014). The rates of homelessness among people with ID were 10% (Oakes & Davies, 2008); 30% (Van Straaten et al., 2014); 34% (Mercier & Picard, 2011); and 40% (Nishio, et al., 2015). People with ID are at greater risk of homelessness when compared with the non-ID population (Oakes & Davies, 2008). In two studies, men with ID were more likely to become homeless and at an older age when compared to women with ID (Mercier & Picard, 2011; Van Straaten et al., 2014). The identification of people with ID within the homeless population can be challenging. Different approaches were adopted across studies in an attempt to identify people with ID within homeless services. The most common approach adopted was self-report by potential study participants, following initial dentification by care staff. One study utilized a standardized screening by way of the Wechsler Adult Intelligence Scale (WAIS) (Nishio, et al., 2015). A further study sought to establish whether the Learning Disability Screening Questionnaire would be an acceptable tool to identify homeless people with ID (McKenzie et al., 2019).

Multiple issues were identified across all the studies that contributed to and led to homelessness for people with ID. The most common factors identified were the presence of significant education deficits, active mental illness, substance misuse, challenging behaviours and relationship breakdown (Mercier & Picard, 2011; Morton & Cunningham-Williams, 2009; Morton et al., 2010; Nishio et al., 2017; Oakes & Davies, 2008; van Straaten et al., 2014, 2017). Mental illness was identified in a number of the studies. In one study, 60% of the sample had mental illness and 56% had substance misuse issues (Mercier & Picard, 2011). Higher rates of somatization and depression were identified with homeless people with ID twice as likely to experience substance misuse with alcohol being the most commonly used substance (van Straaten et al., 2014). In a Japanese study, over 70% of homeless people with ID had mental health conditions including

Key Findings	Recommendations
Mean age 41years. 31% had a suspected ID. 85% male. 82% had low education attainment. 33% using mental health services. 69% needed access to medical care. 24% used housing support services. Care and support of homeless people with IDD requires to be ongoing with a desire to live independently after exiting homelessness. Becoming homeless at an older age and being male are significant factors. Reduction in unmet care needs when support services are provided.	There is a need for more psychosocial and physical interventions to address the increasing problems faced by people with ID who are homeless.
31% if participants had a suspected ID. Improvements in health, income, work and social supports were identified. Decrease in unmet care needs, police arrests, alcohol and cannabis use and distress when supports provided.	Greater psychosocial supports required by people with ID who are homeless to address psychological needs and substance use.
Using a screening tool may identify specialist assessment and support needs and provide evidence regarding prevalence of ID homelessness.	Staff development programmes are required regarding the needs of people with ID. Further research is required using screening questionnaires to systematically identify prevalence and support needs to inform policy and service delivery.

depression, post-traumatic stress disorder (PTSD), mood disorder and alcohol dependence (Nishio, et al., 2015). In another study, 42% of all the participants had a mental illness and 16% experiencing co-occurring ID and mental illness by way of schizophrenia, mood disorder, anxiety disorder, personality disorder and substance use (Nishio, et al., 2015). In a further study conducted in the Netherlands, 33% of the study sample were utilizing mental health services (van Straaten et al., 2017). Several studies identified additional co-occurring health conditions including physical health issues (43%) (Mercier & Picard, 2011), higher levels of smoking (Nishio, et al., 2015) and significant numbers accessing medical health care (69%) (Van Straaten et al., 2017). Family relationship breakdown and subsequent homelessness appears to be related to the death of a family member or main carer and is a potential risk factor (Mercier & Picard, 2011; Gouveia et al., 2017; Gowda et al., 2017; Nishio et al., 2017).

The ideal situation is to prevent people with ID from becoming homeless. For this to be realized, there needs to be nationally coordinated strategic policy approaches to homelessness and the inclusion of the specific needs of the ID population (McKenzie et al., 2019). In some studies, wider transcultural issues were identified as predetermining factors that may result in homelessness. For example, burden, shame and stigma due to having a family member with ID were identified as contributory factors leading to ejection from the family home (Gouveia et al., 2017; Gowda et al., 2017). Associated health co-morbidities, such as mental illness and challenging behaviour, were also found to be negatively associated with homelessness (McKenzie et al., 2019), reducing the possibility of reintegration back into the family home (Gouveia et al., 2017; Gowda et al., 2017).

3.1.2 | Experiencing homelessness

A total of 9 studies identified the experiences of people with ID when homeless. When people with ID become homeless, a recurring

issue is the estrangement from their families (Govia et al., 2017; Gowda et al., 2017). The factors leading to homelessness in the non-ID population, when compared to the ID population, appear to be related to mental illness and substance misuse leading to ejection from the family home. For the non-ID homeless, once treated, reintegration to the family home was achieved. However, reintegration back to the family home is in some cultures less likely for people with ID due to the enduring lifelong nature of the intellectual impairment and ongoing dependence upon families for care and support (Gouveia et al., 2017; Gowda et al., 2017).

An important issue regarding supporting people with ID when homeless is the complexity of the decisions and options that need to be considered and addressed to facilitate the exit from homeless services. They include the range of community supports required, support to access to adult education, employment and workplace support and access to healthcare (Gouveia et al., 2017; Morton & Cunningham-Williams, 2009; Oakes & Davies, 2008). In one study undertaken in the United States (US), volunteering within the homeless agency was seen as beneficial to supporting reintegration back into the community by assisting with the development of life skills necessary for daily living and build resilience and self-esteem (Morton et al., 2010). Given the evidence of the extent of the extent of the co-occurring physical and mental health conditions that many people with ID experience, there is a need for access to initial assessments and screening when entering homeless services to comprehensively identify care and support needs (McKenzie et al., 2019; Nishio, et al., 2015; Nishio, et al., 2015). A significant number of people with ID were found to have co-existing physical and mental health conditions that had not previously been identified and treated, thereby impacting on their health and well-being and quality of life (van der Laan et al., 2018; van Straaten et al., 2017). For example, the most common physical health conditions were musculoskeletal and connective tissue complaints (31%), dental conditions (24%), visual impairments (24%), respiratory disorders (20%), gastro-intestinal

TABLE 3 CASP quality scores (n = 13)

CASP criteria	Oakes and Davies (2008)	Morton and Cunningham- Williams (2009)	Morton et al. (2010)	Mercier and Picard (2011)	Van Straaten et al. (2014)
1. Clear statement of aims	2	2	2	2	2
2. Appropriate methodology	1	2	1	1	2
3. Appropriate research design	1	2	2	1	2
4. Appropriate recruitment strategy	1	1	1	0	1
5. Appropriate data collection methods	2	2	2	1	2
6. Research relationships considered	0	0	0	0	0
7. Consider ethical issues	2	2	2	2	2
8. Rigorous analysis	2	2	2	2	2
9. Clear findings	2	2	2	2	2
10. Value of the research	2	2	2	2	2
Total from a possible 20	15	17	16	13	17

disorders (14%), podiatry complaints (13%) and cardiovascular disorders (11%) (van der Laan et al., 2018). Significant levels of smoking at 71% were identified in one study involving homeless people with ID (Nishio 2015b). Therefore, improved healthcare access and psychosocial supports specific to the needs of people with ID are indicated, including health screening, psychological therapies and treatments (van der Laan et al., 2018; van Straaten et al., 2017).

3.1.3 | Routes out of homelessness

Of the 13 studies, a total of 9 addressed routes out of homelessness for people with ID. Integrated and well-coordinated support services are necessary to support people with ID out of homeless services due to their often-complex co-occurring needs (van der Laan et al., 2018; Nishio, et al., 2015; Nishio, et al., 2015; van Straaten et al., 2017). Central to this is access to housing supports, mental health treatment and interventions and assertive community-based treatment programmes (Nishio et al., 2017). In order to provide pathways out of homelessness, appropriate and responsive physical and psychosocial interventions and supports need to be in place (van der Laan et al., 2018; van Straaten et al., 2017). A significant barrier that impacted upon the care and support provided to people with ID within homelessness services, and those exiting, related to the limited knowledge, skills and expertise of support staff regarding the specific needs and requirements of the population (McKenzie et al., 2019). To help mitigate against these factors, wider policies and strategies need to include a focus on the needs of people with ID to ensure that education opportunities, discrimination, social exclusion, socioeconomic disparities and equality of healthcare access provision are identified and resources and support targeted (Gowda et al., 2017; Nishio et al., 2017; van Straaten et al., 2014). Consequently, education and practice development programmes need to focus on increasing the awareness that people with ID

become homeless and the identification and assessment of their subsequent support needs requires a specific attention (McKenzie et al., 2019; Oakes & Davies, 2008; van Straaten et al., 2014). In terms of discharge from homelessness services and resettlement into the community, there is a need for effective interagency communication, information sharing and service collaboration thereby ensuring that care and support is coordinated and responsive in order to prevent a return to homelessness (McKenzie et al., 2019; Nishio et al., 2017; Nishio, et al., 2015; van Straaten et al., 2014).

4 | DISCUSSION

Important issues have emerged from this systematic review of the current evidence in relation to the experiences of homelessness people with ID. The key themes identified through this systematic review related to the factors that can lead to homelessness for people with ID, the unique experiences of people with ID when homeless and the range of supports necessary to enable them to exit homelessness and re-establish themselves within the community. The implications and relevance of the findings will be considered from the perspective of policy, practice development and education and future research developments.

4.1 | Policy implications

Internationally and across many countries, there is growing attention to the situation of people who are homeless (World Health Organization, 2018). There is a need to recognize and respond effectively to the co-occurring factors that can lead to homelessness for people with ID and have in place preventative strategies. Some of the issues are similar to the non-ID population, while noting the distinct differences such as the impact and consequences of relationship breakdown, death of

Nishio, et al. (2015)	Nishio, et al. (2015)	Gouveia et al. (2017)	Gowda et al. (2017)	Nishio et al. (2017)	Van Straaten et al. (2017)	Van der Laan et al. (2018)	McKenzie et al. (2019)
2	2	2	2	2	2	2	2
2	2	2	1	2	2	2	2
2	2	1	1	2	2	2	2
1	1	1	0	1	1	1	2
2	2	1	1	2	2	2	2
0	0	0	0	0	0	0	0
2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2
17	17	15	13	17	17	17	18

a family member or carer and risk of becoming homeless at an older age (McCann & Brown, 2019; Phipps et al., 2019). Therefore, policy needs to take account of the complex and interrelated circumstances that can lead to homelessness for people with ID; they are multifactorial. Addressing these concerns requires sustained investment and development of services and supports to minimize the risk factors that predispose people with ID to homelessness such as family bereavement, mental health issues and challenging behaviours (Gouda et al., 2017; McKenzie et al., 2019; Mercier & Picard, 2011; Nishio, et al., 2015). Strategically, early intervention and prevention programmes are required, focusing on those most at risk, such as those experiencing a recent bereavement of a family member or carer with no or limited support Mericer & Picard, 2011). Many people with ID experience barriers when accessing healthcare and services appropriate to their needs (Pelleboer-Gunnink et al., 2017; Williamson et al., 2017). Given the range of physical health problems experienced by many people with ID, primary healthcare policy and services need to recognize and responds to the needs of those who are homeless through appropriate assessment and health screening, treatment and healthcare support plans (Emerson et al., 2016). Furthermore, mental health policy needs to take account of the extent of mental ill health and, in particular, the specific requirements of people ID and mental illness who are homeless (Nishio et al., 2017; Nishio, et al., 2015; Whittle et al., 2019). Investment and development are required to ensure that there is access to psychological treatments, interventions and social supports appropriate to the needs of individuals with ID who are homeless (van der Laan et al., 2018; Shankland & Dagnan, 2015; van Straaten et al., 2017).

4.2 | Implications for education and practice development

Practitioners in care agencies, such as housing, education, health and social care, need to recognize that some people with ID become homeless and that on initial presentation it may not be apparent that the person has intellectual and developmental impairments. Furthermore, some people with mild ID may be unaware of their intellectual and cognitive impairment, thereby being unable to disclose this important information to ensure effective access to relevant care and support (McKenzie et al., 2019). Therefore, simple screening is required at the time of reception into homeless services to ensure that the necessary assistance and supports are tailored to the specific needs of the individual with ID (McKenzie et al., 2019; Nishio, et al., 2015). The initial focus of services, such as housing, social work, primary care and specialist intellectual disability services, needs to focus on early identification of people with ID at risk of homelessness.

As many people with ID live at home with their family, an important finding arising from this review is the significance of the bereavement of a family member or main carer. This major event may act as an early risk indicator that may be the precursor to a person with ID becoming homeless. Therefore, service planners and practitioners need to be aware of and alert to the potential significance and impact of such an event (Mercier & Picard, 2011). In order to minimize the possibility of homelessness, it is necessary to ensure that there are coordinated support services in place. Such services may need to include psychiatrists, clinical psychologists, occupational therapists, nurses and social workers, to enable responsive interprofessional care and support.

Practitioners have an important role in facilitating and co-ordinating access to housing, employment, education, day care, primary care and mental health services. This is important as the current evidence highlights that practitioners can bring about improvements in health, well-being and social circumstances (van der Laan et al., 2018; van Straaten et al., 2017). There is therefore an opportunity to develop new models of practice whereby practitioners from specialist ID services are based within homeless services thus ensuring collaborative and coordinated services and supports (van Straaten et al. 2014).

To develop the knowledge, skills, attitudes and understanding of the requirements of people with ID who are homeless, there is a need to bring together the key stakeholders involved in providing services and supports. Given the multifarious range of issues and needs, shared interagency and interprofessional education is required. This will enable the development of information sharing about the services provided by the different agencies and identify future collaborations and shared practice (Gouveia et al., 2017; Mercier & Picard, 2011; Nishio et al., 2017). Ultimately, the purpose of interagency and interprofessional education and training is about improving practice that impacts positively on the care and support for people with ID who are homeless. Education programmes should prioritize early intervention and prevention strategies as a means to reduce the possibility of people with ID becoming homeless. Within homeless services, there is an opportunity to bring together key agencies and services to understand the roles and range of services available and promote the effective co-ordination of care and support to assist people with ID out of homelessness (van der Laan et al., 2018; Nishio, et al., 2015). Following exits from homelessness, education needs to focus on how agencies and services work collaboratively to fully support people with ID to prevent their possible return to homelessness. Homelessness has significant implications for society, services, families and the individual. This needs to be reflected within undergraduate and postgraduate education programmes such as social work, nursing, medicine, occupational therapy, housing, social policy and criminal justice.

4.3 | Implications for future Research

From the current research evidence, it is apparent that multifactorial issues exist that lead to homelessness for people with ID. Further, there are issues around population identification within homeless groups and of gaining informed consent from people with ID that can present significant challenges (van Straaten et al. 2014; McKenzie et al., 2019; Nishio, et al., 2015). The existing studies have predominantly adopted quantitative approaches to identify prevalence figures and care and support needs. There is an absence of qualitative studies investigating the unique views and experiences through the lens of homeless people with ID. This could include their perceptions of the issues that led to homelessness, the circumstances and experiences within homeless services, and the assistance and supports necessary to successfully exit homelessness. To date, there have been no long-term studies following-up people with ID once they exited homeless services. Future studies could also investigate the factors that maintain newly establish housing and support situations and what works to maintain them. Given the apparent higher prevalence of mental illness, substance misuse, sexually transmitted infections (STIs), human immuno-deficiency virus (HIV) and other vulnerabilities, it is important that people with ID are included in homelessness research (Williams & Bryant, 2018). An important further area for future research is to identify the impact of family bereavement or the loss of a main carer as a contributory factor leading into homelessness and the actions necessary to mitigate against this. Further, researchers also need to identify the range of factors that lead people into homelessness and whether they are amenable to preventative strategies, supports and interventions. They need to appreciate the issues and concerns once people with ID become homeless and to identify their specific support needs within homeless services and agencies. Leading out of homelessness, there is a need to conceptualize the needs and supports that may influence and impact upon the individual's trajectory from homelessness and provide the necessary and appropriate service responses.

Future researchers need to ensure that the sub-population of people with ID are included within their study sample. To date, the existing research studies have understandably adopted convenience snowball sampling techniques with self-reporting, in an attempt to identify people with ID within homeless services. There is a need to undertake multi-centre research studies that incorporate larger samples of people with ID to inform policy and shape service developments and evidence-based practice.

4.4 | Limitations of the current review

An important finding and strength of the current review is that family bereavement or loss of a main carer may be a significant contributory factor leading into homelessness for some people with ID. This review has several limitations which the authors acknowledge. The authors have been rigorous in the strict application of the review and analysis process. From a research perspective, there are no international multi-centre studies regarding homelessness and people with ID. Further, there are no longitudinal studies which identify the effectiveness, or not, of the supports provided to help people with ID to exit homelessness. Therefore, future research studies should focus on developing more rigorous approaches to population identification thereby ensuring, as far as possible, that study participants do indeed have an ID.

5 | CONCLUSIONS

This systematic review identifies that people with ID can and do become homeless and, with appropriate supports, can successfully exit homelessness. The current systematic review of the research evidence presents new and important insights that can help develop the understanding of significant issues related to factors that may contribute to and result in homelessness for people with ID. While homeless, due to their cognitive and intellectual impairment and associated needs, particular consideration and responses are required. The factors that can lead into homelessness include, having an intellectual disability, experiencing a family bereavement and loss of a main carer and the presence of mental illness, substance use and challenging behaviours. Additionally, people with ID may become homeless at an older age when compared to people without ID, often as a consequence of

family bereavement or loss of a carer. The identification of people within homeless services and their subsequent care and support remain a significant challenge. Effectively identifying the homeless ID population is necessary strategically and within homelessness services is required to ensure there is access to appropriate psychosocial assessments, interventions and supports. These strategies are needed to assist people with ID to effectively exit homeless services. The critical issue relates to ensuring that there are tailored and responsive services that provide the community-based structures and supports to enable independent and fulfilling lives outside homeless services for people with ID.

CONFLICT OF INTEREST

There are no conflicts of interest that the authors are aware of.

AUTHOR CONTRIBUTIONS

EM and MB designed the review, conducted searches, critical appraisal and analysis of the data. Both authors reviewed drafts and prepared and finalized the review for publication.

ORCID

Michael Brown https://orcid.org/0000-0003-3230-401X

REFERENCES

- Analytics, C. (2018). EndNote X9 for Windows & Mac, released 1 August 2018. Philadelphia: Clarivate Analytics.
- Bainbridge, J., & Carrizales, T. J. (2017). Global homelessness in a post-recession world. *Journal of Public Management & Social Policy*, 24(1), 6.
- Busch-Geertsema, V., Culhane, D., & Fitzpatrick, S. (2016). Developing a global framework for conceptualising and measuring homelessness. *Habitat International*, *55*, 124–132. https://doi.org/10.1016/j.habit atint.2016.03.004
- Caldwell, K., Henshaw, L., & Taylor, G. (2011). Developing a framework for critiquing health research: An early evaluation. *Nurse Education Today*, 31(8), e1–e7. https://doi.org/10.1016/j.nedt.2010.11.025
- Cooper, S. A., McLean, G., Guthrie, B., McConnachie, A., Mercer, S., Sullivan, F., & Morrison, J. (2015). Multiple physical and mental health comorbidity in adults with intellectual disabilities: Population-based cross-sectional analysis. BMC Family Practice, 16(1), 110. https://doi. org/10.1186/s12875-015-0329-3
- Crisis (2018). Homeless knowledge hub. https://www.crisis.org.uk/ending-homelessness/homelessness-knowledge-hub/. Accessed: 12 January 2018.
- Critical Appraisal Skills Programme (2013). Ten questions to help you make sense of qualitative research. Oxford: Critical Appraisal Skills Programme.
- Cronin, J., & Bourke, J. (2017). Value for money? An examination of the relationship between need and cost in intellectual disability services. Health & Social Care in the Community, 25(3), 1227–1236. https://doi.org/10.1111/hsc.12425
- Ditchman, N., Kosyluk, K., Lee, E. J., & Jones, N. (2016). How stigma affects the lives of people with intellectual disabilities: An overview. In: Intellectual Disability and Stigma (pp. 31–47). Palgrave Macmillan, London
- Durbin, A., Isaacs, B., Mauer-Vakil, D., Connelly, J., Steer, L., Roy, S., & Stergiopoulos, V. (2018). Intellectual disability and homelessness: A synthesis of the literature and discussion of how supportive housing can support wellness for people with intellectual disability.

- Current Developmental Disorders Reports, 5(3), 125–131. https://doi.org/10.1007/s40474-018-0141-6
- Emerson, E., Hatton, C., Baines, S., & Robertson, J. (2016). The physical health of British adults with intellectual disability: Cross sectional study. *International Journal for Equity in Health*, 15(1), 11. https://doi.org/10.1186/s12939-016-0296-x
- Gouveia, L., Massanganhe, H., Mandlate, F., Mabunda, D., Fumo, W., Mocumbi, A. O., & de Jesus Mari, J. (2017). Family reintegration of homeless in Maputo and Matola: A descriptive study. *International Journal of Mental Health Systems*, 11(1), 25. https://doi.org/10.1186/ s13033-017-0133-7
- Gowda, G. S., Gopika, G., Kumar, C. N., Manjunatha, N., Yadav, R., Srinivas, D., ... Math, S. B. (2017). Clinical outcome and rehabilitation of homeless mentally ill patients admitted in mental health institute of South India: "Know the Unknown" project. Asian Journal of Psychiatry, 30, 49–53. https://doi.org/10.1016/j.ajp.2017.07.001
- Hourigan, S., Fanaghan, S., & Caraiosa, K. (2018). Annual report of the national intellectual disability data-base committee 2017 main findings. Dublin: Health Research Board.
- Hughes-McCormack, L. A., Rydzewska, E., Henderson, A., MacIntyre, C., Rintoul, J., & Cooper, S. A. (2018). Prevalence and general health status of people with intellectual disabilities in Scotland: A total population study. *Journal of Epidemiology and Community Health*, 72(1), 78–85. https://doi.org/10.1136/jech-2017-209748
- Koslowski, N., Klein, K., Arnold, K., Koesters, M., Schuetzwohl, M., Salize, H. J., & Puschner, B. (2016). Effectiveness of interventions for adults with mild to moderate intellectual disabilities and mental health problems: Systematic review and meta-analysis. *The British Journal of Psychiatry*, 209(6), 469–474. https://doi.org/10.1192/bjp. bp.114.162313
- Levine, K. A., Proulx, J., & Schwartz, K. (2018). Disconnected lives: Women with intellectual disabilities in conflict with the law. *Journal of Applied Research in Intellectual Disabilities*, 31(2), 249–258. https://doi.org/10.1111/jar.12387
- Maroto, M., Pettinicchio, D., & Patterson, A. C. (2019). Hierarchies of categorical disadvantage: Economic insecurity at the intersection of disability, gender, and race. *Gender & Society*, 33(1), 64–93. https:// doi.org/10.1177/0891243218794648
- McCann, E., & Brown, M. (2019). Homelessness among youth who identify as LGBTQ+: A systematic review. *Journal of Clinical Nursing*, 28(11–12), 2061–2072. https://doi.org/10.1111/jocn.14818
- McKenzie, K., Murray, G., Wilson, H., & Delahunty, L. (2019). Homelessness-It will crumble men': The views of staff and service users about facilitating the identification and support of people with an intellectual disability in homeless services. *Health & Social Care in the Community*, https://doi.org/10.1111/hsc.12750
- Mercier, C., & Picard, S. (2011). Intellectual disability and homelessness. *Journal of Intellectual Disability Research*, 55(4), 441–449. https://doi.org/10.1111/j.1365-2788.2010.01366.x
- Moher D., Shamseer L., Clarke M., Ghersi D., Liberati A., Petticrew M...... PRISMA-P Group (2015). Prefered reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. Systematic Reviews, 4(1), 1-9. https://doi.org/10.1186/2046-4053-4-1
- Morton, L. G., & Cunningham-Williams, R. M. (2009). The capacity to give informed consent in a homeless population with developmental disabilities. Community Mental Health Journal, 45(5), 341–348. https:// doi.org/10.1007/s10597-009-9184-9
- Morton, L. G., Cunningham-Williams, R. M., & Gardiner, G. (2010). Volunteerism among homeless persons with developmental disabilities. *Journal of Social Work in Disability & Rehabilitation*, 9(1), 12–26. https://doi.org/10.1080/15367100903526070
- Nishio, A., Horita, R., Sado, T., Mizutani, S., Watanabe, T., Uehara, R., & Yamamoto, M. (2017). Causes of homelessness prevalence: Relationship between homelessness and disability. *Psychiatry and*

- Clinical Neurosciences, 71(3), 180–188. https://doi.org/10.1111/pcn.12469
- Nishio, A., Yamamoto, M., Horita, R., Sado, T., Ueki, H., Watanabe, T., ... Shioiri, T. (2015). Prevalence of mental illness, cognitive disability, and their overlap among the homeless in Nagoya. *Japan. Plos One*, 10(9), e0138052. https://doi.org/10.1371/journal.pone.0138052
- Nishio, A., Yamamoto, M., Ueki, H., Watanabe, T., Matsuura, K., Tamura, O., ... Shioiri, T. (2015). Prevalence of mental illness, intellectual disability, and developmental disability among homeless people in Nagoya, Japan: A case series study. Psychiatry and Clinical Neurosciences, 69(9), 534–542. https://doi.org/10.1111/pcn.12265
- Oakes, P. M., & Davies, R. C. (2008). Intellectual disability in homeless adults: A prevalence study. *Journal of Intellectual Disabilities*, 12(4), 325–334. https://doi.org/10.1177/1744629508100496
- Park, E. Y., Nam, S. J., & Park, S. H. (2017). Income Patterns of Households Including Individuals with Intellectual Disabilities According to Poverty Dynamics. *Journal of Policy and Practice in Intellectual Disabilities*, 14(2), 108–117. https://doi.org/10.1111/jppi.12166
- Pelleboer-Gunnink, H. A., Van Oorsouw, W. M. W. J., Van Weeghel, J., & Embregts, P. J. C. M. (2017). Mainstream health professionals' stigmatising attitudes towards people with intellectual disabilities: A systematic review. *Journal of Intellectual Disability Research*, 61(5), 411–434. https://doi.org/10.1111/jir.12353
- Phipps, M., Dalton, L., Maxwell, H., & Cleary, M. (2019). Women and homelessness, a complex multidimensional issue: Findings from a scoping review. *Journal of Social Distress and the Homeless*, 28(1), 1–13. https://doi.org/10.1080/10530789.2018.1534427
- Piat, M., Polvere, L., Kirst, M., Voronka, J., Zabkiewicz, D., Plante, M. C., ... Goering, P. (2015). Pathways into homelessness: Understanding how both individual and structural factors contribute to and sustain homelessness in Canada. *Urban Studies*, 52(13), 2366–2382. https:// doi.org/10.1177/0042098014548138
- Robertson, J., Hatton, C., Emerson, E., & Baines, S. (2014). The impact of health checks for people with intellectual disabilities: An updated systematic review of evidence. *Research in Developmental Disabilities*, 35(10), 2450–2462. https://doi.org/10.1016/j.ridd.2014.06.007
- Rushbrooke, E., Murray, C., & Townsend, S. (2014). The experiences of intimate relationships by people with intellectual disabilities: A qualitative study. *Journal of Applied Research in Intellectual Disabilities*, 27(6), 531–541. https://doi.org/10.1111/jar.12091
- Salmon, N., Garcia Iriarte, E., Donohoe, B., Murray, L., Singleton, G., Barrett, M., & Dillon, M. (2019). Our Homes: An inclusive study about what moving house is like for people with intellectual disabilities in Ireland. *British Journal of Learning Disabilities*, 47(1), 19–28. https:// doi.org/10.1111/bld.12251
- Shankland, J., & Dagnan, D. (2015). IAPT practitioners' experiences of providing therapy to people with intellectual disabilities. *Advances in Mental Health and Intellectual Disabilities*, 9(4), 206–214. https://doi.org/10.1108/AMHID-02-2015-0008
- Spence, S., Stevens, R., & Parks, R. (2017). Cognitive dysfunction in homeless adults: A systematic review. *Journal of the Royal Society of Medicine*, 97(8), 375–379. https://doi.org/10.1177/014107680409700804
- Stone, B., Dowling, S., & Cameron, A. (2019). Cognitive impairment and homelessness: A scoping review. *Health & Social Care in the Community*, 27(4), e125–e142. https://doi.org/10.1111/hsc.12682
- Truesdale, M., & Brown, M. (2017). People with Learning Disabilities in Scotland: Health Needs Assessment Update Report 2017. Glasgow: NHS Health Scotland.

- van der Laan, J., van Straaten, B., Boersma, S. N., Rodenburg, G., van de Mheen, D., & Wolf, J. R. (2018). Predicting homeless people's perceived health after entering the social relief system in The Netherlands. *International Journal of Public Health*, 63(2), 203–211. https://doi.org/10.1007/s00038-017-1026-x
- van Dongen, S. I., van Straaten, B., Wolf, J. R., Onwuteaka-Philipsen, B. D., van der Heide, A., Rietjens, J. A., & van de Mheen, D. (2019). Self-reported health, healthcare service use and health-related needs: A comparison of older and younger homeless people. Health & Social Care in the Community, https://doi.org/10.1111/hsc. 12739
- van Straaten, B., Rodenburg, G., van der Laan, J., Boersma, S. N., Wolf, J. R., & van de Mheen, D. (2017). Self-reported care needs of Dutch homeless people with and without a suspected intellectual disability: A 1.5-year follow-up study. *Health & Social Care in the Community*, 25(1), 123–136. https://doi.org/10.1111/hsc.12287
- van Straaten, B., Schrijvers, C. T., van der Laan, J., Boersma, S. N., Rodenburg, G., Wolf, J. R., & Van de Mheen, D. (2014). Intellectual disability among Dutch homeless people: Prevalence and related psychosocial problems. *PLoS One*, 9(1), e86112. https://doi.org/10.1371/journal.pone.0086112
- Whittle, E. L., Fisher, K. R., Reppermund, S., Lenroot, R., & Trollor, J. (2018). Barriers and enablers to accessing mental health services for people with intellectual disability: A scoping review. *Journal of Mental Health Research in Intellectual Disabilities*, 11(1), 69–102. https://doi.org/10.1080/19315864.2017.1408724
- Whittle, E. L., Fisher, K. R., Reppermund, S., & Trollor, J. (2019). Access to mental health services: The experiences of people with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, 32(2), 368–379. https://doi.org/10.1111/jar.12533
- Williams, S. P., & Bryant, K. L. (2018). Sexually transmitted infection prevalence among homeless adults in the United States: A systematic literature review. Sexually Transmitted Diseases, 45(7), 494. https://doi.org/10.1097/OLQ.00000000000000000
- Williamson, H. J., Contreras, G. M., Rodriguez, E. S., Smith, J. M., & Perkins, E. A. (2017). Health care access for adults with intellectual and developmental disabilities: A scoping review. OTJR: Occupation, Participation and Health, 37(4), 227–236. https://doi. org/10.1177/1539449217714148
- Wilson, S., McCloughen, A., Parr, J., & Jackson, D. (2019). "If you are homeless you are welcome here": Social obligations for the homeless and socially disadvantaged. *Journal of Clinical Nursing*, 28(15–16), 2721–2723. https://doi.org/10.1111/jocn.14851
- Woodman, A. C., Mailick, M. R., Anderson, K. A., & Esbensen, A. J. (2014). Residential transitions among adults with intellectual disability across 20 years. American Journal on Intellectual and Developmental Disabilities, 119(6), 496–515. https://doi.org/10.1352/1944-7558-119.6.496
- World Health Organisation (2018). WHO Housing and Health Guidelines. Geneva: WHO.

How to cite this article: Brown M, McCann E. Homelessness and people with intellectual disabilities: A systematic review of the international research evidence. *J. Appl. Res. Intellect. Disabil.* 2020;00:1–12. https://doi.org/10.1111/jar.12815