2023-08-01

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Jane Currie

Lucy McWilliams

Martha Paisi *School of Nursing and Midwifery*

Jill Shawe *School of Nursing and Midwifery*

Anna Thornton

et al. *See next page for additional authors*

Collegian 30 (2023) 586–594

Contents lists available at ScienceDirect

Collegian

journal homepage: www.elsevier.com/locate/colegn

Nurses' perceptions of the skills, knowledge and attributes required to optimise scope of practice and improve access to care for people experiencing homelessness in Australia: A cross-sectional study

Jane Currie [a,b,*], Lucy McWilliams [b], Martha Paisi [c,d], Jill Shawe [c,f], Anna Thornton [b,e], Matthew Larkin [b], Joanne Taylor [b], Sandy Middleton [b,e]

[a] School of Nursing, Queensland University of Technology, Kelvin Grove Campus, Brisbane 4059, QLD, Australia
[b] St Vincent's Hospital Sydney, 390 Victoria Street, Darlinghurst 2010, NSW, Australia
[c] School of Nursing and Midwifery, University of Plymouth, Drake Circus, Plymouth PL4 8AA, United Kingdom
[d] Peninsula Dental Social Enterprise, University of Plymouth, Drake Circus, Plymouth PL4 8AA, United Kingdom
[e] Nursing Research Institute, St Vincent's Hospital Network Sydney, St Vincent's Hospital Melbourne & Australian Catholic University, Level 5 deLacy Building, 390 Victoria St, Darlinghurst 2010, NSW, Australia
[f] Royal Cornwall Hospital, Truro, Cornwall TR1 3HD, United Kingdom

ARTICLE INFO

Article history:
Received 2 September 2022
Received in revised form 29 January 2023
Accepted 9 February 2023

Keywords:
Homelessness
Survey
Cross-sectional
Nursing
Education
Access to care

ABSTRACT

Background: People experiencing homelessness are less likely to access healthcare, particularly primary and preventive care. Nurses are well placed to improve access to healthcare for this vulnerable population.
Aim: To explore nurses' perceptions of the skills, knowledge and attributes required to optimise scope of practice and improve access to healthcare for people experiencing homelessness, to underpin an education framework.
Design: A cross-sectional national survey of nurses in Australia.
Methods: Part of a larger study, a 222-item electronic survey was disseminated via social media and nursing colleges and associations. Participants rated the level of priority of specific skills knowledge and attributes to optimise nurses' scope of practice and improve access to care for people experiencing homelessness. Quantitative data were analysed descriptively and qualitative data thematically.
Findings: The final analysis comprised n = 67 surveys. Participants were registered nurses (n = 54), nurse practitioners (n = 12) and one enrolled nurse. Items rated as highest priority and used in practice to optimise access to care were interpersonal attributes (n = 66.5, 99%), diagnosing presenting complaints (n = 64, 95%) and interpreting diagnostic test results (n = 63, 93%). Organisationally, support from colleagues (n = 58, 87%), managers (n = 57, 85%) and clear clinical guidelines (n = 46, 69%) are reportedly important. Most participants stated willingness to undertake further education in the care of people experiencing homelessness (93%, n = 62).
Conclusion: In developing a nursing education framework to optimise nurses' scope of practice and improve access to care for people experiencing homelessness, the findings suggest that interpersonal skills, diagnosis and treatment are priority topics.

* Corresponding author at: Queensland University of Australia, N338, Kelvin Grove Campus, QLD, 4059, Australia. Tel.: +61 416 647 340.
E-mail address: jane.currie@qut.edu.au (J. Currie).

https://doi.org/10.1016/j.colegn.2023.02.002

Summary of relevance

Problem or Issue

People experiencing homelessness are less likely to access healthcare and have poorer health outcomes than those living in stable accommodation.

What is already known

Nurses are often the first and sometimes the only point of contact for people experiencing homelessness when they access healthcare. Little is known on how to optimise scope of practice of nurses to improve access to care for people experiencing homelessness.

What this paper adds

Findings identify that interpersonal skills, diagnostic skills and interpretation of diagnostic test results were the highest priority in optimising scope of practice and therefore are important topics for the educational preparation to care for people experiencing homelessness. Participants recommended education to prepare them to optimise scope of practice and improve access to care for people experiencing homelessness.

1. Introduction

Homelessness is a growing problem and is challenging for communities worldwide. An estimated 1.6 billion people live in inadequate housing globally (UN-Habitat, 2016). Pathways leading to homelessness are extremely complex and encompass structural and individual causal factors, such as precarious employment, insufficient income and access to affordable housing as well as physical and mental health problems, domestic violence, childhood trauma and incarceration (Davies & Wood, 2018; Fazel, Geddes, & Kushel, 2014).

The Australian Bureau of Statistics' definition of homelessness describes a person as homeless if they do not have suitable accommodation alternatives and their current living arrangement is in an inadequate dwelling, has no or limited/non-extendable tenure and the person has no control of/no access to space for social relations (2018). Homelessness is an umbrella term used to describe four broad population groups: (1) rough sleeping, (2) supported accommodation (e.g., refugees and crisis accommodation), (3) short-term accommodation without tenure (e.g., boarding houses, hostel, caravan and couch surfing) and (4) accommodation in institutional settings (e.g., hospitals, drug and alcohol rehabilitation centers and jail) (Flatau et al., 2018).

The evidence associating homelessness with morbidity and mortality is compelling (Aldridge, 2018; Marmot, 2015; Seastres, 2020). A 15-year retrospective cohort study of homeless and nonhomeless attendances to an emergency department in Melbourne, Australia, concluded that at least one episode of homelessness was associated with premature mortality (Seastres et al., 2020). Over 15 years, people experiencing homelessness had a higher mortality rate (11.89 vs 8.10 per 1000 person years) and a younger median age at death (66.60 vs 78.19 years) (Seastres et al., 2020). While their health needs in view of their disease burden and injury are greater, people experiencing homelessness are less likely to access primary health services, and more likely to seek emergency department care, with higher rates of representation (Moore, Gerdtz, Hepworth, & Manias, 2011). Healthcare professionals are pivotal to supporting people experiencing homelessness to access the care they need. When people experiencing homelessness access care, they often wait longer in emergency departments to receive care (Ayala, Tegtmeyer, Atassi, & Powell, 2021), they are more likely to be triaged as a lower priority (Moore et al., 2007), are more likely to leave without being seen and reattend for the same condition (Lee et al., 2019; Formosa, Kishimoto, Orchanian-Cheff and Hayman, 2020; Moore et al., 2011) and experience social stigma (Bennett-Daly et al., 2021; Grech & Raeburn, 2021). While no single health professional discipline can adequately address homelessness, nurses are particularly well placed to assist given their sheer number within the health workforce (57% of all registered health professionals in Australia (Australian Institute of Health and Welfare, 2020)) and the fact that they are often the first and sometimes only point of contact for patients receiving healthcare.

In Australia, the absolute number of people identified as homeless rose by 30% over the 10 years to 2016 (Seastres et al., 2020), while the rate of homelessness per 10,000 population rose by 10% over that same period (Australian Institute of Health and Welfare, 2020). Most people experiencing homelessness are male (58%), 44% living in severely crowded dwellings, 18% in supported accommodation and 7% rough sleeping (Australian Institute of Health and Welfare, 2021). Aboriginal and Torres Strait Islander people constitute 20% of all people experiencing homelessness, while comprising only 3% of the total population (Australian Bureau of Statistics, 2018). A leading cause of homelessness amongst women and children in Australia is domestic and family violence (Australian Housing and Urban Research Institute, 2021).

It is well established that people experiencing homelessness suffer poorer health outcomes than the general population, including higher rates of mental illness, acute and chronic physical illness, traumatic injuries, disability and premature mortality (Seastres et al., 2020; Fazel et al., 2014). Poor health can be both a contributing factor to a person entering homelessness and a result of homelessness itself (Fazel et al., 2014). People experiencing homelessness may have a reduced ability to access healthcare, influenced by practicalities such as itinerant circumstances, reduced access to affordable transport to appointments and personal competing priorities, such as finding a place to sleep versus seeking healthcare (Davies & Wood, 2018). Additionally, relational barriers, such as perceived stigma and judgement from health professionals, often make it difficult for a person to enter a hospital or clinic, and then feel comfortable to sit and wait, further reducing the person's capacity to access healthcare (Davies & Wood, 2018; Marmot, 2015).

In Australia, the recent evidence base on homelessness and nursing includes the establishment of nurse-led community clinic services (Bennett-Daly et al., 2021; Goeman, Howard, & Ogrin, 2019; Roche et al., 2018), a Hepatitis-C clinic (Harney et al., 2019) and street outreach services (Wood, Hickey, Werner, Davies, & Stafford, 2020). Reported benefits of nurse-led services are their capacity to advocate for patients in accessing both health and social services (Goeman et al., 2019), and the flexibility of service provision through assertive outreach on the street or in boarding houses and hostels (Bennett-Daly et al., 2021; Goeman et al., 2019). Findings highlight the popularity of nurse-led services due to the perceived safety and acceptance expressed by those that attend (Goeman et al., 2019), and the longer time nurses spend with clients helps to address their complex needs (Roche et al., 2018). Nurses in both mainstream and specialist services find it challenging to provide healthcare to people experiencing homelessness due to the lack of discharge options, particularly the lack of connection between hospitals and other services (Grech & Raeburn, 2021; Goeman et al., 2019). There is currently no evidence to indicate the educational preparation required to optimise nurses' scope of practice to improve access to care for people experiencing homelessness. Addressing this gap in evidence is important given that nurses practising in any setting are likely to encounter people experiencing homelessness, and therefore have an opportunity to facilitate access to care for this vulnerable population.

2. Aims and objectives

The primary aim was to explore the skills, knowledge and attributes that nurses perceive they require to optimise access to care for people experiencing homelessness. The secondary aim was to examine nurses' educational needs in the care of people experiencing

homelessness. A tertiary aim was to undertake a subgroup analysis for differences by type of nurses (registered nurses, nurse practitioners and enrolled nurses) and location of practice (rural/remote, metropolitan).

3. Study design

A cross-sectional national survey of registered nurses, enrolled nurses and nurse practitioners was conducted. The study is reported here using the Consensus-Based Checklist for Reporting of Survey Studies (Sharma et al., 2021).

4. Participants

Eligible participants were registered to practice as a registered nurse or enrolled nurse or endorsed to practice as a nurse practitioner in Australia. Participants were employed in a clinical role in any practice setting in Australia. Participants provided healthcare to people experiencing homelessness as part of their regular clinical practice. Two snowballing methods were used to recruit participants, firstly through posts on the social media platforms of St Vincent's Hospital Sydney and St Vincent's Health Australia, and secondly by approaching professional nursing associations and colleges. The QR code and electronic link to the survey were disseminated by the Australian College of Nursing, the Australian College of Nurse Practitioners, the Australian Primary Healthcare Nurses Association, College of Emergency Nursing Australia, Council of Remote Area Nurses Australia, Australian College of Mental Health Nurses and the Drug and Alcohol Nurses of Australasia.

5. Survey instrument

An electronic survey was specifically designed by the authorship team and informed by a scoping review conducted by the authors on nurse-led homeless health services (McWilliams et al., 2022). Findings of the scoping review identified the broad categories of skills, knowledge and attributes involved in providing healthcare to people experiencing homelessness, and these were used as a basis for the survey design. To confirm the clarity and appropriateness of the survey, it was reviewed by all members of the authorship team and piloted with the Director of Aboriginal Services and the Nursing Unit Manager Homeless Health at the study site, and four registered nurse colleagues independent of the study. The pilot resulted in minor amendments to the wording and the sequence of the survey questions.

The survey instrument has 222 items and was divided into sections focused on skills, knowledge, attributes and a section relating to organisational support. Participants were asked about 134 discrete items related to their nursing scope of practice. The survey was deliberately long and detailed in its design, to gain an in-depth understanding of the skills, knowledge and attributes required to inform the design of a nursing educational pathway to optimise care for people experiencing homelessness. For analysis, the items were divided into six groups according to skills, knowledge and attributes, as follows: (1) *assessment skills,* (2) *procedural skills,* (3) *client support* and *education skills,* (4) *knowledge of diagnosing presenting complaints,* (5) *knowledge of interpreting diagnostic test results* and (6) *interpersonal attributes*. Participants were asked whether, in the care of people experiencing homelessness, each item was (a) priority and currently part of their practice, (b) priority but not part of their practice or (c) not a priority in the care of people experiencing homelessness. A list of statements about organisation and system-level factors was provided and participants were asked to indicate the extent to which they agreed or disagreed with each. For example, 'I generally have the support I need from my manager', 'I generally have clear organisational guidelines to support my scope of practice.'

6. Data collection and analysis

Data were collected using the REDCap online survey platform between 12th July and 1st October, 2021. Quantitative data were imported to SPSS version 27 (SPSS Inc., Chicago, IL) for descriptive analysis. Qualitative responses were analysed inductively using an adapted version of Braun & Clarke's (2006) thematic analysis. The qualitative data were read and reread and then coded question by question. Themes that represented the codes were then identified. The qualitative data analysis process was piloted by two authors (JC, LM) by analysing 20% of the data simultaneously. Thereafter, the remaining data were analysed independently by the same two authors (JC, LM). Once completed, the analyses were compared by the authors (JC, LM), and any disagreements resolved through discussion.

7. Ethics

The study was approved by the St Vincent's Hospital Sydney Human Research Ethics committee (2021/ETH00940). All participants volunteered to participate in the electronic survey. A copy of the participant information statement was embedded in the survey tool, and consent was deemed by completion of the survey. Survey responses were anonymous. At the end of the survey, participants were invited to volunteer to undertake a follow-up interview, those willing provided their name and a contact email address.

8. Results

8.1. Participant characteristics

A total of 215 respondents attempted the survey. The analysis presented here comprises 67 surveys (31%) that answered over 95% of the items, as shown in Table 1. Participant age range was 25–68 years with a mean of 46 years, majority were female (n = 53, 79%) and non indigenous (n = 66, 99%), most lived in New South Wales (n = 28, 42%) or Queensland (n = 14, 21%) and worked in a metropolitan setting (n = 49, 73%).

Registered nurses comprised most respondents (n = 54, 81%), followed by nurse practitioners (n = 12, 18%) and one enrolled nurse (n = 1, 1%). The most reported clinical specialties were emergency (n = 24, 36%), homeless health (n = 20, 30%) and primary healthcare (n = 18, 27%). Most participants practice in hospital inpatient (n = 34, 51%), community clinic (n = 19, 28%) and street outreach (n = 14, 21%) settings. Over half of the participants had been in their current role for five years or less (n = 43, 64%). The average number of years qualified to practice were 19 years as a registered nurse, 7.5 years as a nurse practitioner and 1 year as an enrolled nurse. Among the nurse practitioners, the average time registered as a registered nurse was 27 years.

8.2. Scope of practice

8.2.1. Priority and used in practice

The interpersonal attributes (n = 66.5, 99%), which includes relationship and rapport building, a trauma-informed approach and advocacy against stigma, were rated as the highest priority, as shown in Table 2. Also identified as a priority were knowledge of diagnosing presenting complaints (n = 63.9, 95%) and knowledge of interpreting diagnostic test results (n = 62.6, 93%). Rated as the lowest priority were procedural skills (n = 54, 81%).

Of the 134 skill, knowledge and attribute items, 61 items were identified by 95% or more participants, to be a priority in the care of people experiencing homelessness. Priority rating of these items differed between nurse practitioner and registered nurse participants, as shown in Table 3. For both registered nurses and nurse

Table 1
Participant characteristics.

Characteristics	n (%)	Characteristics	n (%)
Age		*Years endorsed as a nurse practitioner*	
18–30	8 (12)	1–10	9 (13)
31–40	13 (19)	11–20	3 (4)
41–50	16 (24)	*Years in current role*	
51–60	26 (39)	0–5	43 (64)
61–70	4 (6)	6–10	12 (18)
Gender		10+	12 (18)
Female	53 (79)	*Proportion of patients experiencing homelessness*	
Male	11 (16)	Some (under 50%, but more than 0%)	43 (64)
Prefer not to answer	2 (3)	Most (over 50%, but less than 100%)	17 (25)
Non-binary	1 (1)	All (100%)	7 (10)
Indigenous status		*Clinical specialty*	
Neither Aboriginal/ Torres Strait Islander	66 (99)	Emergency	24 (36)
Aboriginal	1 (1)	Homeless health	20 (30)
State or territory		Primary healthcare	18 (27)
New South Wales	28 (42)	Alcohol and other drug	15 (22)
Queensland	14 (21)	Mental health	15 (22)
Western Australia	10 (15)	Chronic disease management/care	9 (13)
Victoria	6 (9)	Community nursing	9 (13)
Tasmania	4 (6)	Other clinical speciality[b]	8 (12)
Australian Capital Territory	3 (4)	Aboriginal and Torres Strait Islander Health	6 (9)
Northern Territory	2 (3)	Sexual/women's/men's health	6 (9)
Geographic context		Correctional health	4 (6)
Metro or city	49 (73)	Cardiology	3 (4)
Regional or rural	16 (24)	General medical	3 (4)
Remote or very remote	2 (3)	General surgical	3 (4)
Level of education		Remote area nursing	3 (4)
Master by coursework	23 (34)	Aged care	2 (3)
Bachelor degree	17 (25)	Haematology and oncology	2 (3)
Graduate certificate	15 (22)	Orthopaedics	1 (1)
Graduate diploma	5 (7)	Other critical care	1 (1)
Master by research	3 (4)	Rehabilitation	1 (1)
PhD or professional doctorate	3 (4)	Renal and/or dialysis	1 (1)
Other (please specify)[a]	1 (1)	Respiratory	1 (1)
Practice role		Vascular	1 (1)
Registered nurse	54 (81)	*Clinical setting*	
Nurse practitioner	12 (18)	Hospital inpatient	34 (51)
Enrolled nurse	1 (1)	Community clinic	19 (28)
Years registered as a nurse		Street outreach	14 (21)
1–10	19 (28)	Community home visit	9 (13)
11–20	18 (27)	Hospital outpatient	7 (10)
21–30	17 (25)	AMS or aboriginal Health	6 (9)
31–40	9 (13)	General practice surgery	5 (7)
41+	3 (4)	Other practice setting[c]	4 (6)
Years qualified as an enrolled nurse		Correctional center	3 (4)
1–10	1 (1)	Residential aged care facility	1 (1)

Abbreviations: AMS=Aboriginal Medical Service
[a] 1 = Hospital-trained general and psychiatric nursing certificates.
[b] 2 = clinical education,1 = hepatology, 1 = cardiothoracic surgery, 1 = pain, 1 = COVID special health accommodation,1 = sexual health and blood borne viruses, 1 = vaccination hub.
[c] 2 = supervised injecting room, 2 = nursing education.

practitioners, an interpersonal approach to care was rated as the most used. For registered nurses, the next most used groups were alcohol and other drug (n = 43.5, 81%), and mental health (n = 41.8, 77%), and the least rated was physical health items (n = 34.2, 63%). Among nurse practitioner participants, health promotion and education (n = 11.8, 98%) and other skills (n = 10.2, 85%), which included psychosocial assessment and domestic violence risk assessment, were the next most used, with alcohol and other drug rating last (n = 8.8, 73%). Nurse practitioners reported using all skill subcategories more frequently than registered nurses, except alcohol and other drug. The enrolled nurse (n = 1) participant identified all 61 items as a priority in the care of people experiencing homelessness and reported using most of the items in their practice.

8.2.2. A priority, but not currently part of my practice

For each skill, knowledge and attribute, where relevant, participants were asked why the items identified as a priority were not used in their practice. Participants were asked to choose from one of eight reasons, listed in Table 4, or to specify other reasons. Across all item groups and all participants, the most cited reason was '*Not part of my specific role*,' cited a total of 98 times. This was followed by '*Not educated to perform this*,' cited 65 times, and '*Time constraints*,' cited 50 times. When examined by item group, '*Not my role*' was the most common reason. The exception to this is registered nurses in rural and remote settings, who were most likely to cite a lack of education, time constraints and lack of relevance to their practice to explain why a skill, knowledge or attribute was not part of their practice. Other reasons cited include a lack of resources on site, reported by a participant in a remote area (Participant 2); the need for trust to be established first, particularly regarding gender boundaries (Participant 182); a lack of access to the Medicare Benefits Schedule for nurse practitioners (Participant 48) and being educated in a skill but not yet accredited to perform it in their current practice setting (Participant 93). Several participants reported that other professionals or services performed certain tasks either because it was required, such as a case worker completing a Centrelink certificate because the nurse practitioner is not allowed (Participant 213), or because specialised services are available in metro areas, whereas they may not be in rural areas (Participants 20, 47 and 83).

8.3. Not a priority

Registered nurses were more likely to rate any item as not a priority in the care of people experiencing homelessness, with 90% (n = 121) of the 134 items rated as not a priority by at least one registered nurse participant, compared with 43% (n = 57) of items by at least one nurse practitioner participant. For both registered nurses and nurse practitioners, items under the procedural skills subcategory were more likely to be rated as not a priority. For nurse practitioners, this subcategory had the highest number of items rated as not a priority by at least one participant, at 81% (n = 21) of items. For registered nurses, all items were rated as not a priority by at least one participant, with 50% (n = 13) rated as such by at least a quarter of participants.

Cannulation was the item rated as not a priority by the highest number of participants overall (40%, n = 27), and within both registered nurses (44%, n = 24) and nurse practitioners (25%, n = 3). For registered nurses, a further 14 items were rated as not a priority by at least a quarter of participants. They included items concerning sexual and reproductive health, such as check-up post termination of pregnancy (35%, n = 19), performing speculum examinations and pap smears (33%, n = 18) and administering contraception (30%, n = 16). They also included items concerning injury management, such as application of plaster casts (37%, n = 30), suturing and wound closure and the application of splints (33%, n = 18). For nurse practitioners, a further 12 items were rated as not a priority by 17% (n = 2) of participants. They were primarily focused on injury management, including the three aforementioned items, and interpreting imaging, including abdominal, chest and limb X-rays, and magnetic resonance imaging and computerised tomography scans.

Table 2
Skill knowledge and attribute rating.

Five highest-priority items	Priority (a + b)[a] n (%)	In use (a) n (%)	Five lowest-priority items	Priority (a + b) n (%)	In use (a) n (%)
Skills — assessment					
Alcohol and drug assessment	66 (99)	57 (85)	Well women's check	52 (78)	13 (19)
Mental health assessment	66 (99)	55 (82)	Well men's check	52 (78)	13 (19)
Psychosocial assessment	66 (99)	55 (82)	Eye assessment	53 (79)	18 (27)
Domestic violence assessment	66 (99)	44 (66)	Ear, nose and throat assessment	54 (81)	21 (31)
Infectious disease assessment	63 (94)	43 (64)	Urogenital and gynaecological assessment	54 (81)	21 (31)
Skills — procedural					
Mental health interventions	65 (97)	52 (78)	Cannulation	40 (60)	23 (34)
Violence prevention/management	65 (97)	48 (72)	Application of plaster casts	45 (67)	7 (10)
Identifying and managing alcohol withdrawal	64 (96)	50 (75)	Check-up post termination of pregnancy	47 (70)	6 (9)
Identifying and managing an opiate overdose	64 (96)	46 (69)	Suturing and wound closure	47 (70)	10 (15)
Identifying and managing intoxication	63 (94)	50 (75)	Application of splints	47 (70)	11 (16)
Skills — client support and education					
Health promotion	67 (100)	58 (87)	Accompanying patients to appointments	59 (88)	22 (33)
Psychosocial and emotional support	66 (99)	52 (78)	Sexual health counselling	59 (88)	27 (40)
Health literacy assessment	65 (97)	39 (58)	Telephone follow-up of referrals	59 (88)	37 (55)
General health education and screening	64 (96)	51 (76)	Assistance with nonhealth services	60 (90)	25 (37)
Health education harm reduction	64 (96)	48 (72)	Relapse prevention support	60 (90)	29 (43)
Knowledge — recognising or diagnosing presenting complaints					
Signs of mildmoderate intoxication	66 (99)	60 (90)	Denture-related problems	61 (91)	26 (39)
Thoughts of self-harm, suicidal ideation	66 (99)	59 (88)	Genital warts	61 (91)	26 (39)
Respiratory illness and distress	66 (99)	55 (82)	Constipation	61 (91)	48 (72)
Mood disorders, for example, anxiety, depression	66 (99)	55 (82)	Vaginal thrush	62 (93)	34 (51)
Common skin conditions, for example, dermatitis	66 (99)	51 (76)	Gastrointestinal infections	62 (93)	41 (61)
Knowledge — interpreting diagnostic test results					
Basic blood results, for example, FBC and EUC	65 (97)	50 (75)	MRI scan	60 (90)	7 (10)
Urine microscopy and culture	65 (97)	45 (67)	CT scan	61 (91)	14 (21)
Pregnancy test results, blood and urine	64 (96)	41 (61)	Pap smear results	61 (91)	15 (22)
Swab results, for example, wound, throat/nasal	64 (96)	40 (60)	Abdominal X-ray	61 (91)	17 (25)
Blood-borne virus blood results	64 (96)	37 (55)	Limb X-ray	61 (91)	23 (34)
Interpersonal attributes					
Acknowledgement of the patient as a person	67 (100)	67 (100)	Self-presentation, for example, clothing, posture	64 (96)	61 (91)
Communication, for example vocabulary, tone	67 (100)	66 (99)	Advocacy against stigma	66 (99)	58 (87)
Attitude, for example, nonjudgement, respect	67 (100)	66 (99)	Advocacy navigating health system	66 (99)	61 (91)
Cultural awareness and sensitivity	67 (100)	66 (99)	Recognising and valuing patient's strengths	66 (99)	62 (93)
Understanding of prejudice and stigma	67 (100)	65 (97)	Ability to problem-solve and adapt	66 (99)	64 (96)

[a] a = considered a priority, and currently part of practice, b = considered a priority, but *not* currently part of practice.

8.4. Impact of organisational factors

When asked which organisational factors impact on delivering healthcare to people experiencing homelessness (Table 4), participants agreed/strongly agreed that support from their colleagues n = 58 (87%), a manager (n = 57, 85%) or from an organisation (n = 55, 82%) was most important. Thirty-five (52%) participants disagreed/strongly disagreed that the services they hand their patients over to have the capacity to address the patient's complex needs. Other barriers related to authority to initiate or prescribe medications (n = 32, 48%), order diagnostic tests (n = 32, 48%) or initiate treatments (n = 31, 46%).

Participants were asked to expand on the organisational factors important for providing healthcare to people experiencing homelessness. Themes identified were *lack of services and fragmentation, stigma* and *loss of trust with services, clinical awareness, resource constraints and scope of practice.* Time and the availability of services to support people experiencing homelessness were strongly identified as a challenge along with the scope of practice of registered nurses in relation to initiation of investigations and treatments *'Unable to nurse initiate any medication such as simple analgesia. Unable to order basic tests'* (Participant 40, registered nurse). The onward referral of people experiencing homelessness was perceived as a substantial barrier to improving access to healthcare *'Very difficult to refer to appropriate service who are able to support our complex clients'* (Participant 41). In rural and remote areas particularly, certain mental health and crisis services were simply not available. Clinician awareness of available services was identified as a limitation *'Unaware of services to refer the person onto once they are discharged from the Emergency Department'* (Participant 38). Participants also identified the patient's loss of trust in services as a challenge in improving access to care:

> 'Most clients face stigma at local health services and understandably have lost trust *in those services. It makes supporting people to seek healthcare / referrals challenging*' (Participant 15).

8.5. Education and salary

When asked whether they would be willing to undertake further education in the care of people experiencing homelessness, n = 62 (93%) stated they would. Preferred education types were short-form education programs, such as in-services (n = 36, 58%), a structured pathway within the workplace (n = 32, 51%) or an external short course equivalent to 2–5 days through TAFE or a university (n = 26, 42%). Seventeen (27%) participants stated a willingness to complete a subject as part of a graduate certificate, n = 21 (34%) a full graduate certificate and n = 11 (18%) a full graduate diploma.

Participants were asked whether further education would justify a salary increase; n = 39 (58%) stated it would not. When asked to expand on their answer, three themes were identified in the qualitative responses, (1) *part of normal work*, (2) *proud and enjoy the work I do*, (3) *employer should pay for cost of additional learning*. Qualitative themes from participants who believed additional education justified a salary increase, were *workload*, meaning that additional learning would result in additional workload and therefore

Table 3
Items identified as a priority by 95% or more of NP/RN participants.

	RN, n (%)		NP, n (%)			RN, n (%)		NP, n (%)	
Items	a[a]	b[b]	a	b	Items	a	b	a	b
Interpersonal approach to care					*Health promotion and education*				
Acknowledge patient as a person	54 (100)	0 (0)	12 (100)	0 (0)	Health promotion	45 (83)	9 (17)	12 (100)	0 (0)
Communication, for example, vocabulary, tone	53 (98)	1 (2)	12 (100)	0 (0)	General health education and health screening	39 (72)	12 (22)	11 (92)	1 (8)
Attitude, for example, nonjudgement, empathy and respect	53 (98)	1 (2)	12 (100)	0 (0)	Health education specific to harm reduction	35 (65)	16 (30)	12 (100)	0 (0)
Cultural awareness, sensitivity	53 (98)	1 (2)	12 (100)	0 (0)	Health literacy assessment	26 (48)	26 (48)	12 (100)	0 (0)
Meet on persons' level	53 (98)	0 (0)	12 (100)	0 (0)	*Other*				
Belief in justice, equality	53 (98)	0 (0)	12 (100)	0 (0)	Psychosocial assessment	44 (81)	9 (17)	10 (83)	2 (17)
Validate person's experience	52 (96)	2 (4)	12 (100)	0 (0)	Psychosocial support	39 (72)	14 (26)	12 (100)	0 (0)
Self-reflection, understanding one's own biases	52 (96)	2 (4)	12 (100)	0 (0)	Violence prevention and management	39 (72)	14 (26)	8 (67)	3 (25)
Understand prejudice and stigma	52 (96)	2 (4)	12 (100)	0 (0)	Referrals to other services	33 (61)	19 (35)	10 (83)	1 (8)
Relationship and rapport building	52 (96)	1 (2)	12 (100)	0 (0)	DFV risk assessment	32 (59)	21 (39)	11 (92)	1 (8)
Receptive, responsive and flexible	51 (94)	3 (6)	12 (100)	0 (0)	*Physical health*				
Empowering patients	51 (94)	3 (6)	12 (100)	0 (0)	Wound infection	45 (83)	6 (11)	10 (83)	2 (17)
Ability to problem-solve, be adaptable and resourceful	51 (94)	2 (4)	12 (100)	0 (0)	Recognise respiratory illness and distress	44 (81)	9 (17)	10 (83)	2 (17)
Trauma-informed approach	50 (93)	4 (7)	12 (100)	0 (0)	Recognise cellulitis	44 (81)	8 (15)	10 (83)	2 (17)
Recognising and valuing patient's strengths	49 (91)	4 (7)	12 (100)	0 (0)	Recognise common skin conditions, for example, dermatitis	41 (76)	12 (22)	9 (75)	3 (25)
Self-presentation	49 (91)	3 (6)	11 (92)	0 (0)	Recognise skin abscess	40 (74)	12 (22)	10 (83)	2 (17)
Advocacy navigating healthcare system	48 (89)	5 (9)	12 (100)	0 (0)	Recognise urinary tract infections	42 (78)	10 (19)	8 (67)	4 (33)
Interservice collaboration	48 (89)	6 (11)	12 (100)	0 (0)	Interpret blood results	37 (69)	15 (28)	12 (100)	0 (0)
Advocacy against stigma	45 (83)	8 (15)	12 (100)	0 (0)	Recognise dehydration	41 (76)	11 (20)	8 (67)	3 (25)
Environmental and situational risk assessment	40 (74)	14 (26)	11 (92)	1 (8)	Recognise signs of DMT2	39 (72)	13 (24)	10 (83)	2 (17)
					Recognise signs of CVD	38 (70)	13 (24)	9 (75)	3 (25)
Alcohol and other drug					Recognise brain injury	36 (67)	15 (28)	10 (83)	2 (17)
Recognise signs of intoxication	47 (87)	6 (11)	12 (100)	0 (0)	Interpret urine MCS	35 (65)	17 (31)	10 (83)	2 (17)
Alcohol and drug use assessment	45 (83)	8 (15)	11 (92)	1 (8)	Interpret pregnancy tests	31 (57)	20 (37)	9 (75)	3 (25)
Identify and manage alcohol withdrawal	43 (80)	9 (17)	6 (50)	5 (42)	Recognise limb injuries requiring X-ray	31 (57)	21 (39)	9 (75)	2 (17)
Identify and manage opiate OD	39 (72)	13 (24)	6 (50)	5 (42)	Interpret swab results	30 (56)	22 (41)	9 (75)	2 (17)
Mental health					Recognise ear infections	30 (46)	21 (39)	9 (75)	3 (25)
Recognise thoughts of self-harm and suicidal ideation	46 (85)	7 (13)	12 (100)	0 (0)	Interpret blood-borne virus blood results	25 (46)	26 (48)	11 (92)	1 (8)
MH and suicide risk assessment	43 (80)	10 (19)	11 (92)	1 (8)	Recognise GI disorders	28 (52)	23 (43)	8 (67)	4 (33)
Recognise mood disorders, for example, anxiety, depression	45 (83)	8 (15)	9 (75)	3 (25)	Differentiate between different types of rashes	26 (48)	27 (50)	8 (67)	4 (33)
Mental health interventions	42 (78)	11 (20)	9 (75)	2 (17)	Recognise BBVs	22 (41)	29 (54)	11 (92)	1 (8)
Recognise episodes of psychosis	42 (78)	10 (19)	9 (75)	2 (25)	Recognise renal disorders	24 (44)	27 (50)	9 (75)	3 (25)
Recognise complex trauma and PTSD	33 (61)	20 (37)	8 (67)	4 (33	Recognise oral health problems	24 (44)	28 (52)	8 (67)	4 (33)

Abbreviations: OD = overdose, MH = mental health, DFV = domestic and family violence, DMT2 = diabetes mellitus type 2, CVD = cardiovascular disease, MCS = microscopy, culture and sensitivity, GI = gastrointestinal, BBVs = blood-borne viruses.
[a] a = considered a priority, and currently part of practice.
[b] b = considered a priority, but *not* currently part of practice.

Table 4
Organisational factors affecting practice in the delivery of healthcare to people experiencing homelessness.

	Strongly agree/agree	Strongly disagree/ disagree	Not relevant
	n (%)	n (%)	n (%)
The support and collaboration I need from my colleagues, both nursing and non-nursing	58 (87%)	9 (13%)	0
The support I need from my manager	57 (85%)	7 (10%)	3 (5%)
The support I need from my organisation	55 (82%)	9 (13%)	3 (5%)
The professional autonomy I need	54 (81%)	13 (19%)	
The ability to ensure continuity of care by communicating and/or following up with other services	48 (72%)	18 (27%)	1 (1%)
Access to appropriate referral pathways	47 (71%)	19 (28%)	1 (1%)
Clear organisational guidelines to support my scope of practice	46 (69%)	20 (30%)	1 (1%)
The appropriate space and resources in my workplace	41 (61%)	25 (37%)	1 (1%)
A manageable patient or case load, allowing me enough time	40 (60%)	25 (37%)	2 (3%)
The authority to decide on and initiate a range of treatments based on diagnostic test results	31 (46%)	31 (46%)	5 (8%)
I generally find that the services I hand my patient over to have the capacity to address the patient's complex needs	31 (46%)	35 (53%)	1 (1%)
The authority to order necessary diagnostic tests, such as pathology and imaging	30 (45%)	32 (47%)	5 (8%)
The authority to either prescribe a range of medications, or initiate them as a standing order	27 (41%)	32 (47%)	8 (12%)
Appropriate access to the Pharmaceutical Benefits Scheme	25 (37%)	30 (45%)	12 (18%)
Appropriate access to the Medicare Benefits Schedule	23 (34%)	33 (49%)	11 (17%)

justify more pay. The second theme was *recognition* of the learning '*Important to recognise extra learning*' (Participant 43). A third theme was *responsibility, expectations, autonomy* and participants believed that the additional knowledge would lead to role expansion and additional responsibility and accountability and therefore would justify a salary increase: '*Accepting greater responsibility and scope within the workplace should reflect a change in pay due to risk and further education completed*' (Participant 151).

9. Discussion

In terms of the content of an education program, participants rated interpersonal attributes as the highest priority in their care of people experiencing homelessness, along with diagnosing presenting complaints and interpreting diagnostic test results. Rated among the lowest priority were procedural skills. These findings contrast to those of the authors scoping review, which identified assessment and procedural skills as most frequently used in the nurse-led services reported in existing literature (McWilliams et al., 2022).

The focus on interpersonal attributes reflects the importance of patient centredness and a trauma-informed approach to reduce stigma, a known barrier to accessing healthcare for people experiencing homelessness (Davies & Wood, 2018). A Swedish study sought to examine correlations of attitudes towards homelessness and perceptions of caring behaviours among women experiencing homelessness, nurses and nursing students (Gaber, Rosenblad, Mattson & Klarare, 2022). Study findings indicated negative attitudes among RNs and nursing students, likely the result of a lack of familiarity with marginalised communities. The authors suggested a need to provide nurses with educational opportunities to increase their understanding of underserved populations, with the intent of promoting a more positive attitude toward homelessness, and the ethical imperative of equal care for all (Gaber et al., 2022). The attitude, self-presentation and communication style of nurses has been reported as a facilitator of initial and ongoing engagement with people experiencing homelessness, particularly in outreach settings (Poulton, McKenna, Keeney, Hasson, & Sinclair, 2006; Seiler & Moss, 2012). Through engagement, nurses can then build trust, which becomes the gateway to providing healthcare and improving access and health outcomes (McWilliams et al., 2022). Without engagement, little can be achieved. Therefore, educationally preparing nurses so that they can engender trust with people experiencing homelessness is critical.

A recent literature review of undergraduate nurses' clinical skill development highlighted the growing popularity of developing novel approaches to teach non-technical or soft skills, such as communication, situational awareness and empathy, as part of undergraduate education (Currie et al., 2023). The importance of these nontechnical skills is perhaps amplified when engaging with vulnerable populations. As an example, domestic and family violence is one of the leading causes of homelessness for women and children in Australia (Australian Housing and Urban Research Institute, 2021). Evidence suggests that nurses are reluctant to screen for domestic and family violence due to a lack of confidence in how to act when a person discloses to them (Baird, Saito, Eustace, & Creedy, 2018), which creates barriers to onward referral to appropriate specialist services (Christensen, Metcalfe, & O'Reilly, 2021; Kirk & Bezzant, 2020). Findings from a study in Sweden (Sundborg, Saleh-Stattin, Wändell, & Törnkvist, 2012) and Brazil (Visentin, Becker Vieira, Trevisan, Lorenzini, & Franco da Silva, 2015) suggest that educational interventions can be effective in changing nurse's perception of domestic and family violence in primary healthcare settings and awareness of the services that are available, making them more likely to initiate curious questioning and referrals.

Also identified as important in nurses' provision of care to people experiencing homelessness, are skills and knowledge in patient diagnosis and treatment. Barriers to delivering healthcare to people experiencing homelessness were lack of authority to prescribe medications, or to order diagnostic tests and initiate treatments. Together, these findings suggest the need for an extended scope of practice to enable nurse-led services to meet the needs of this vulnerable population. Therefore, it is timely that the Nursing & Midwifery Board of Australia have initiated a consultation regarding the introduction of a registered nurse endorsement for schedule medicines partnership prescribing (Nursing & Midwifery Board of Australia, 2018). In the United Kingdom, independent nurse prescribing has been effective in increasing timely access to medications in the management of minor and chronic illness (Royal College of Nursing Policy and International Department, 2014). A proportion of homelessness services are solely nurse-led, and the increased autonomy enabled by nurse prescribing is likely to improve access to healthcare, particularly in low-resource or geographically isolated areas (McWilliams et al., 2022).

Study findings also highlight the influence of organisational climate and culture on scope of practice. Participants reported the most common reasons for not undertaking certain practices were because they were, 'not part of my specific role' 'not relevant to my specific practice setting', 'not educated to perform this' and 'time constraints'. Most survey participants were practising in hospital-based settings where there is perhaps less opportunity for flexibility and autonomy in practice, compared with community settings. Participants identified that support from their colleagues, manager and the organisation was important in enabling their scope of practice, as were clear organisational guidelines, access to referrals and professional autonomy. These resonate with findings of an Australian national survey exploring the barriers and facilitators of expansion to nurses' scope of practice, which reported key barriers were the absence of organisational guidelines, absence of additional salary and lack of time (Birks et al., 2019). In optimising the scope of practice of nurses, it will be essential to ensure that organisational support is sufficient to enable nursing practice. Regarding the implementation of nurse practitioner roles in Australia, research evidence has focused heavily on the opposition of other health professional groups (Currie, Borst & Carter, 2022) and its impact on nurse practitioner workforce development. Also relating to nurse practitioners, it has taken time for health system structures and policy to fully recognise the scope of practice of nurse practitioners. For example, nurse practitioners' access to provide subsidised healthcare through the Medicare Benefits Schedule, Australia's publicly funded universal healthcare system, commenced only ten years following their initial implementation, and access to Medicare remains limited (Currie, Chiarella & Buckley, 2019).

Nurse practitioners in the United States have also experienced the impact of legislation on their scope of practice and subsequent capacity to improve access to care. Unlike Australia, the majority of nurse practitioners in the United States (88%) are certified in primary care (American Associate of Nurse Practitioners, 2022) and provide services to vulnerable and marginalised populations. Up to 83.2% of full-time nurse practitioners in the United States accept Medicare patients and 81.9% accept Medicaid patients (American Associate of Nurse Practitioners, 2022). The United States nurse-managed health clinics, staffed by nurse practitioners and advanced practice nurses, have been identified as an opportunity to improve access to care for people experiencing homelessness (Weber, 2019). In adapting to the COVID-19 pandemic, certain states in the United States waived scope of practice restrictions for nurse practitioners in relation to physician oversight of nurse practitioner practice. In some states, the removal of restrictions was temporary, and yet barriers to practice continue to restrict patient access to care even in states with full-practice authority (Kleinpell, Myers, Schorn, & Likes, 2021). The full potential

of these nurse-managed clinics will probably only be realised when full-practice authority for nurse practitioners is fully realised.

8. Clinical implications

Given the small sample size of this study, further data are required to ensure that the findings are representative of the broader nursing community. The next stage of this research is to conduct qualitative interviews with survey participants, which will enable a deeper understanding of the educational priorities to optimise scope of practice to improve access to care for people experiencing homelessness. A future challenge will be devising an educational program that facilitates the development of the skills, knowledge and attributes highlighted by participants, particularly the soft skills that are so important in engendering trust and reducing the sense of stigma often perceived by marginalised communities.

9. Limitations

This study has some limitations. While 215 nurses responded to the survey, analysis included responses from only 67 participants. It is acknowledged that these findings are unlikely to be representative of the Australian nursing workforce that provides healthcare to people experiencing homelessness. The intent was to provide an in-depth understanding of the skills, knowledge and attributes and the data collected certainly provide this. The list of skills, knowledge and attributes included in the survey was informed by the literature, and intended to be exhaustive, which resulted in a lengthy survey of n = 222 items. It is likely that the survey length impacted upon the response rate. The low numbers preclude us from fulsome examination of differences between rural and remote and metropolitan responses, especially by nursing role.

10. Conclusion

Notwithstanding the small sample size of this survey, the findings add to the current understanding of nurses' perceptions of the skills, knowledge and attributes of highest priority in optimising the scope of practice and access to care for people experiencing homelessness. Further exploration through interviews with survey participants will provide a deeper exploration of the factors that facilitate and inhibit nurses' scope of practice in caring for this vulnerable population. A future challenge will be developing an educational program that optimises scope of practice of nurses and developing an organisational framework to facilitate nurses' capacity to enhance access to care for people experiencing homelessness.

CRediT authorship contribution statement

Jane Currie: Conceptualisation of the study, design of the study including survey tool, analysis of data, interpretation of findings and drafting of the paper. **Lucy McWilliams:** Design of the study including survey tool, dissemination of survey, analysis of data, interpretation of findings and drafting of the paper. **Martha Paisi:** Design of the study including survey tool, interpretation of findings and drafting of the paper. **Jill Shawe:** Design of the study including survey tool, interpretation of findings and drafting of the paper. **Anna Thornton:** Design of the study including survey tool, interpretation of findings and drafting of the paper. **Matthew Larkin:** Design of the study including survey tool, interpretation of findings and drafting of the paper. **Joanne Taylor:** Design of the study including survey tool, interpretation of findings and drafting of the paper. **Sandy Middleton:** Design of the study including survey tool, interpretation of findings and drafting of the paper.

Funding

Inclusive Health Program, St Vincent's Health Australia.

Ethical statement

The study was approved by the St Vincent's Hospital Sydney Human Research Ethics committee (2021/ETH00940).

Conflict of interest

The authors have no financial or other conflict of interest in relation to this publication. This review was unfunded.

Acknowledgements

We thank the survey participants for their participation in this study.

References

Aldridge, R. W., Story, A., Hwang, S. W., Nordentoft, M., Luchenski, S. A., Hartwell, G., Tweed, E. J., Lewer, D., Katikireddi, S. V., & Hayward, A. C. (2018). Morbidity and mortality in homeless individuals, prisoners, sex workers, and individuals with substance usedisorders in high-income countries: A systematic review and meta-analysis. *Lancet, 391*, 241–250.

American Associate of Nurse Practitioners (2022). *NP Fact Sheet*. Available from: ⟨https://www.aanp.org/about/all-about-nps/np-fact-sheet⟩.

Australian Bureau of Statistics. (2018). *Census of Population and Housing: Estimating Homelessness*. Canberra, Australia: ABS. [Internet]. (Available from) ⟨https://www.abs.gov.au/statistics/people/housing/census-population-and-housing-estimating-homelessness/latest-release⟩.

Australian Housing and Urban Research Institute (2021). *Housing, Homelessness and Domestic and Family Violence*. ⟨https://www.ahuri.edu.au/analysis/policy-analysis/housing-homelessness-domestic-family-violence⟩..

Australian Institute of Health and Welfare (2020). *Australia's Health: Health Workforce*. ⟨https://www.aihw.gov.au/reports/australias-health/health-workforce⟩.

Australian Institute of Health and Welfare (2021). *Homelessness and homelessness services*. ⟨https://www.aihw.gov.au/reports/australias-welfare/homelessness-and-homelessness-services⟩.

Ayala, A., Tegtmeyer, K., Atassi, G., & Powell, E. (2021). The effect of homelessness on patient wait times in the emergency department. *The Journal of Emergency Medicine, 60*, 661–668. https://doi.org/10.1016/j.jemermed.2020.12.031

Baird, K. M., Saito, A. S., Eustace, J., & Creedy, D. K. (2018). Effectiveness of training to promote routine enquiry for domestic violence by midwives and nurses: a pre-post evaluation study. *Women & Birth, 31*, 285–291. https://doi.org/10.1016/j.wombi.2017.10.014

Bennett-Daly, G., Unwin, M., Dinh, H., Dowlman, M., Harkness, L., Laidlaw, J., & Tori, K. (2021). Development and initial evaluation of a nurse-led healthcare clinic for homeless and at-risk populations in Tasmania, Australia: a collaborative initiative. *International Journal of Environmental Research and Public Health, 18*, Article 12770. . https://doi.org/10.3390/ijerph182312770

Birks, M., Davis, J., Smithson, J., & Lindsay, D. (2019). Enablers and Barriers to Registered Nurses Expanding Their Scope of Practice in Australia: A Cross-Sectional Study. *Policy, Politics and Nursing Practice, 20*(3), https://doi.org/10.1177/1527154419864176

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77–101. https://doi.org/10.1191/1478088706qp063oa

Christensen, M., Metcalfe, L. L., & O'Reilly, R. (2021). Emergency department nurses experiences of female domestic violence presentations: a review of the qualitative literature. *Nursing Forum, 56*, 925–937. https://doi.org/10.1111/nuf.12632

Currie, J., Borst, A., & Carter, M. (2022). Bibliometric review of the field of Australian nurse practitioner research between August 2000 to May 2021. *Collegian, 29*, 671–679. https://doi.org/10.1016/j.colegn.2022.03.001

Currie, J., Chiarella, M., & Buckley, T. (2019). Privately practising nurse practitioners' provision of care subsidised through the Medicare Benefits Schedule and the Pharmaceutical Benefits Scheme in Australia: results from a national survey. *Australian Health Review, 43*, 55–61.

Currie, J., Thompson, C., Grootemaat, P., Andersen, P., Finnegan, A., & Carter, M. (2023). A scoping review of clinical skill development of preregistration registered nurses. *Journal of Clinical Nursing, 32*(1-2), 283–297.

Davies, A., & Wood, L. (2018). Homeless health care: meeting the challenges of providing primary care. *Medical Journal of Australia, 209*, 230–234. https://doi.org/10.5694/mja17.01264

Fazel, S., Geddes, J. R., & Kushel, M. (2014). The health of homeless people in high-income countries: descriptive epidemiology, health consequences, and clinical and policy recommendations. *Lancet, 384*, 1529–1540. https://doi.org/10.1016/S0140-6736(14)61132-6

Flatau, P., Tyson, K., Callis, Z., Seivwright, A., Box, E., Rouhani, L., Lester, N., Firth, D., & Ng, S.-W. (2018). *The State of Homelessness in Australia's Cities: a Health and Social*

Cost Too High. Perth, Western Australia: Centre for Social Impact The University of Western Australia.
Formosa, E. A., Kishimoto, V., Orchanian-Cheff, A., & Hayman, K. (2020). Emergency department interventions for homelessness: a systematic review. *Candian Journal of Emergency Medicine, 23*, 111–122.
Gaber, S. N., Rosenblad, A. K., Mattson, E., & Klarare, A. (2022). The relationship between attitudes to homelessness and perceptions of caring behaviours: a cross-sectional study among women experiencing homelessness, nurses and nursing students. *BMC Woment Health, 22*, Article 159. . https://doi.org/10.1186/s12905-022-01744-8
Goeman, D., Howard, J., & Ogrin, R. (2019). Implementation and refinement of a community health nurse model of support for people experiencing homelessness in Australia: a collaborative approach. *BMJ Open, 9*, Article e030982. . https://doi.org/10.1136/bmjopen-2019-030982
Grech, E., & Raeburn, T. (2021). Experiencing of hospitalised homeless adults and their health care providesr in OECD nations: a literature review. *Collegian, 28*, 1–9. https://doi.org/10.1016/j.colegn.2018.04.004
Harney, B. L., Whitton, B., Lim, C., Paige, E., McDonald, B., Nolan, S., Pemberton, D., Hellard, M. E., & Doyle, J. S. (2019). Quantitative evaluation of an integrated nurse model of care providing hepatitis C treatment to people attending homeless services in Melbourne, Australia. *International Journal of Drug Policy, 72*, 195–198.
Kirk, L., & Bezzant, K. (2020). What barriers prevents health professionals screening women for domestic abuse? A Literature reviews. *British Journal of Nursing, 29*, 754–760.
Kleinpell, R., Myers, C. R., Schorn, M. N., & Likes, W. (2021). Impact of COVID-19 pandemic on APRN practice: results from a national survey. *Nursing Outlook, 69*, 783–792. https://doi.org/10.1016/j.outlook.2021.05.002
Lee, S., Thomas, P., Newnham, H., Freidin, J., Smith, C., Lowthian, J., Borghmans, F., Gocentas, R. A., De Silva, D., & Stafrace, S. (2019). Homeless status documentation at a metropolitan hospital emergency department. *Emergency Medicine Australasia, 31*, 639–645.
Marmot, M. (2015). *The Health Gap: the Challenge of an Unequal World*. London: Bloomsbury Publishing.
McWilliams, L., Paisi, M., Middleton, S., Shawe, J., Thornton, A., Taylor, J., et al. (2022). Scoping review: Scope of practice of nurse-led services and access to care for people experiencing homelessness. *Journal of Advanced Nursing, 78*, 3587–3606 (accepted).
Moore, G., Gerdtz, M. F., Hepworth, G., & Manias, E. (2011). Homelessness: patterns of emergency department use and risk factors for re-presentation. *Emergency Medicine Journal, 28*, 422–427.
Moore, G., Gerdtz, M. F., Manias, E., Manias, E., Hepworth, G., & Dent, A. (2007). Socio-demographic and clinical characteristics of re-presentation to an Australian inner city emergency department: implications for service delivery. *BMC Public Health, 7*, Article 320.
Nursing & Midwifery Board of Australia (2018). *Consultation paper - Proposed Registration Standard for Endorsement of Scheduled Medicines for RNs Prescribing in Partnership*. Available from: ⟨https://www.nursingmidwiferyboard.gov.au/News/Past-Consultations.aspx⟩.
Poulton, B., McKenna, H., Keeney, S., Hasson, F., & Sinclair, M. (2006). The role of the public health nurse in meeting the primary health care needs of single homeless people: a case study report. *Primary Health Care Research and Development, 7*, 135–146. https://doi.org/10.1191/1463423606pc278oa
Roche, M. A., Duffield, C., Smith, J., Kelly, D., Cook, R., Bichel-Findlay, J., et al. (2018). Nurse-led primary health care for homeless men: a multimethods descriptive study. *International Nursing Review, 65*, 392–399. https://doi.org/10.1111/inr.12419
Royal College of Nursing Policy and International Department (2014) was retrieved from https://www.rcn.org.uk/about-us/our-influencing-work/policy-briefings/pol-1512.
Seastres, R. J., Hutton, J., Zordan, R., Moore, G., Mackelprang, J., Kiburg, K. V., & Sundararajan, V. (2020). Long-term effects of homelessness on mortality: a 15-year Australian cohort study. *Australia and New Zealand Journal of Public Health, 44*, 476–481. https://doi.org/10.1111/1753-6405.13038 Epub 2020 Sep 21.
Seiler, A. J., & Moss, V. A. (2012). The experiences of nurse practitioners providing health care to the homeless. *Journal of the American Academy of Nurse Practitioners, 24*, 303–312. https://doi.org/10.1111/j.1745-7599.2011.00672.x
Sharma, A., Minh Duc, N. T., Thang, T. L. L., Hai Nam, N., Jia Ng, S., Abbas, K. S., et al. (2021). A consensus-based checklist for reporting of survey studies (CROSS). *Journal of General Internal Medicine, 36*, 3179–3187. https://doi.org/10.1007/s11606-021-06737-1
Sundborg, E., Saleh-Stattin, N., Wändell, P., & Törnkvist, L. (2012). Nurses' preparedness to care for women exposed to Intimate Partner Violence: a quantitative study in primary health care. *BMC Nursing, 11*, 1–11. https://doi.org/10.1186/1472-6955-11-1
UN-Habitat (2016). *Fundaments of Urbanization. Evidence Base for Policy Making*. Nairobi: UN-Habitat.
Visentin, F., Becker Vieira, L., Trevisan, I., Lorenzini, E., & Franco da Silva, E. (2015). Women's primary care nursing in situations of gender violence. *Investigacion y Education en Enfermeria, 33*, 556–564. https://doi.org/10.17533/udea.iee.v33n3a20
Weber, J. J. (2019). A systematic review of nurse-led interventions with populations experiencing homelessness. *Public Health Nursing, 36*, 96–106. https://doi.org/10.1111/phn.12552
Wood, L., Hickey, J., Werner, M., Davies, A., & Stafford, A. (2020). If you have mental health, alcohol and drug issues you often fall through the cracks of the health system: tackling this challenge through a novel dual diagnosis outreach service for people experiencing homelessness. *Parity, 33*, 50–52.