

Research Article

When More Satisfying and Supportive Relationships Increase Loneliness: The Social Worlds of People with Lived Experience of Homelessness

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People experiencing homelessness can often have small and fragmented social networks, due to the loss and absence of critical connections, leaving them particularly susceptible to loneliness. During the course of homelessness, some people experience a changing profile of networks, transitioning away from family and some friends and forming new/substitute networks, such as service providers or pets. The resulting loneliness can have profound impacts on this group, threatening their physical and mental health and their ability to exit homelessness successfully. This study aimed to understand the social network characteristics and support associated with loneliness. MOS Social Support and social network questionnaire data from 124 participants (either currently or formerly homeless) were used in three hierarchical regression models to predict romantic, social, and family loneliness (SELSA-S), respectively. Findings suggested the more supportive, important, and (often) more satisfying that participants deemed current relationships to be, the lonelier they tended to feel. This occurred even if they were no longer homeless. These findings suggest that loneliness can operate differently in the context of poverty and homelessness. Whilst experiencing homelessness, people may prioritise relationships that provide resources and safety over those that assuage loneliness. Service providers can support people exiting homelessness to (re)connect with important and valued networks to reduce loneliness.

1. Introduction

Loneliness can have profound impacts on people with lived experience of homelessness. Feeling lonely can prevent a person from successfully exiting homelessness and retaining tenancies, leading them to return to friends made in homelessness [1, 2]. Furthermore, when experienced chronically, loneliness can have severe physical and mental health impacts [3], which is concerning amongst a population with such high rates of mental and physical disorder [4]. As such, it is imperative that service providers working with people who are currently homeless or are exiting homelessness understand and treat the social roots of their loneliness. Extensive research has been conducted on the relationships of people experiencing homelessness, from

detailed quantitative analyses of network structure and its role in behaviour and experience, e.g., [5, 6], to qualitative analyses of the daily relational experiences of homelessness, e.g., [7]. However, existing research has yet to explore how these populations' social networks and the support these networks provide impact their experience of loneliness.

Experiences of loneliness depend on the type of relationship a person feels they lack. Quantitative research has highlighted the multidimensional nature of loneliness, even when using "unidimensional" measures [8]. Individuals can experience 'social loneliness' a perceived lack of friendships, in either quality or quantity. They may also experience "emotional loneliness," a deficit of intimate attachments including familial ("family loneliness") or romantic relationships ("romantic loneliness") [9].

People who have experienced homelessness may be susceptible to both social and emotional loneliness. An increased susceptibility to emotional loneliness is evidenced by research showing difficult familial relationships amongst this population. Interpersonal issues such as relationship breakdown, trauma, and child abuse form part of many people's pathways into homelessness [10–12], leaving people with small and fragmented family networks [7]. Some choose to disengage with negative family relationships to preserve their mental health [13]. Similarly, research has identified friendship networks amongst this group as changeable and somewhat precarious [14], increasing the likelihood of social loneliness. Some research has shown that people experiencing homelessness have very small friendship networks. For example, a USA study found that one in five people experiencing homelessness reported having zero friends [15]. Other research has shown that people develop “family-like” social networks with others who are also experiencing homelessness [14]. For example, LGBTIQ+ youth experiencing homelessness have reported finding close-knit bonds amongst peers amongst broader experiences of familial stigma and exclusion [16].

Emotional value, comfort, help, and information—or “social support”—which are available within a network may also impact if and how a person experiences loneliness [17, 18]. For example, the type of loneliness experienced may depend on the type of support that is lacking—an unsupportive intimate partner may foster romantic loneliness. Past research suggests that social support could have mixed impacts on loneliness amongst people experiencing homelessness [13]. In the absence of core relationships, people experiencing homelessness often form other kinds of relationships to get necessary support. Pets can become a substitute for human relationships and provide unconditional love and companionship, potentially helping to reduce loneliness [19, 20]. Service providers (e.g., case-workers) can provide important companionship and support [21]. Historically, past literature has suggested that amongst socially marginalised populations, like those experiencing homelessness, social support can exacerbate rather than buffer stress [22], potentially altering the protective effect relationships have on loneliness or leading to “entrenchment” in street cultures [23]. However, more recent literature has presented a more nuanced analysis of homeless social networks, finding that support can buffer stress [24] and that relationships formed with others in similar situations can also be reciprocal, assist recovery, and build camaraderie but can be complicated by social processes like stigma around homelessness [25].

Finally, de Jong Gierveld et al. [26] argue that the likelihood someone will feel lonely may depend on whether their social relationships match sociocultural ideas of what is considered “normal” and “valuable.” For example, across many societies, having a spouse and children is often considered normative “valuable” relationships. For the socially or financially marginalised, restrictive and insulated social environments can inhibit the formation of such relationships [27, 28], prompting loneliness. Indeed, qualitative research with participants with lived experience of

homelessness found that participants framed their social networks within a position of marginalisation [13]. Participants recounted experiences of rejection from outsiders (i.e., nonhomeless individuals) and active avoidance of old friendship networks, even after exiting homelessness. This was thought to be due to the fear of judgment and shame regarding their homelessness experience. However, people experiencing homelessness also have the agency to counter such dislocation with meaningful and satisfying substitutes—like family-like friendships amongst LGBTIQ+ youth described earlier [16]—suggesting that nonnormative networks may also stave off isolation amongst this group.

This study explored how perceptions of relationships, such as perceived importance, satisfaction, and social support, contributed to social, family, or romantic loneliness amongst people with lived experience of homelessness. This study also explored whether specific kinds of relationships (such as pets or “family-like” friendships) were able to compensate for other lost/absent relationships and reduce loneliness. Given findings that loneliness can prevent a person from maintaining a tenancy after homelessness, this study also explored whether predictors of loneliness differed amongst individuals with current and past experiences of homelessness.

2. Methods

Ethical approval was received from Western Sydney University's Human Research Ethics Committee (H10853).

2.1. Recruitment. Recruitment occurred within Sydney (a metropolitan Australian city) through homeless drop-in, supported accommodation, and low-threshold community services that support people experiencing marginalisation. Participants were eligible if they had experienced homelessness in the last few years as per the Australian definition of homelessness (i.e., meaning they had been living on the street or in an improvised dwelling such as a car, or else in a dwelling considered inadequate because it had no/limited tenure or did not allow control of and space for social relations) [29]. Participants needed to be aged 18 years or older and speak adequate English to complete the survey with minimal assistance and could not be acutely psychologically unwell. Recruitment was both researcher-led—“hanging out” at services, meeting potential participants, and explaining the study to them—and service-led—staff distributing flyers to clients, with interested clients making contact with researchers through staff via email or telephone.

In total, 129 people with current or recent experience of homelessness completed a survey on their social networks and experiences. The data from five participants were excluded due to missing/invalid responses, resulting in $n = 124$. Prior to obtaining written consent, the researcher ensured that participants understood their involvement was voluntary and confidential and that they could withdraw without jeopardising their reputation or service access. Researchers assessed a participant's capacity to provide consent by

chatting with them and consulting caseworkers when unsure about their cognitive capacity. The participants were reimbursed with a modest AUD \$20 gift voucher.

2.2. Measures

2.2.1. Loneliness. The Short Social and Emotional Loneliness Scale for Adults (SELSA-S) [9] was used and slightly amended to account for the inappropriateness of some items for this sample (see [30]). Family loneliness, romantic loneliness, and social loneliness domain scores were generated by summing the items for each domain and taking their average.

2.2.2. Social Support. The MOS Social Support Scale [31] was used to compute four domain scores (tangible, positive social interaction, emotional/informational, and affectionate support). Participants were told to consider only nonformal support networks, excluding service providers and mental/physical health professionals.

2.2.3. Pet Ownership. Participants were asked if they had at least one pet (yes/no).

2.2.4. Network-Specific Characteristics. Participants were asked specific questions about different network groups, including family, current friends, old (often prehomeless) friends, intimate partners, and service providers. Participants were provided with picture cards, each representing a network group (e.g., “family”). Visual methods, such as pictures, can help participants perceive the complexities of their social world in a more tangible way [32] and can reduce the cognitive load amongst those with compromised cognitive functioning. Participants were asked how many people were in each network group. Regardless of whether they reported any people in that group, participants were also asked how “important” each network group was to them, relative to other groups in their lives. Participants were provided with 25 plastic tokens and asked to distribute the tokens across the network group cards to reflect their perceived importance of each group. No restrictions were placed on the minimum or maximum number of tokens allowed on each card. The number of tokens on each network card was then counted, and a “relative network importance score” was calculated out of a possible score of 25. For example, if 10 tokens were placed on the “family” card, the family importance score was calculated as $10/25 = 0.4$. If zero tokens were placed on the “intimate partner” card, then the intimate partner importance score was $0/25 = 0$. Possible scores ranged from 0 to 1, where a score of “0” indicated that a network group was not at all important and a score of “1” indicated that the network was the only important group, relative to all other network groups.

The participants were then asked to rate their level of satisfaction with each network group on a six-point Likert scale, from “1” “very dissatisfied” to “6” “very satisfied.”

2.2.5. Nonsocial Network Questions. Homelessness status, whether participants had lived experience of homelessness (“current homelessness” or “prior homelessness”) was operationalised in terms of current versus recent homelessness, using the Australian Government definition described earlier [29].

2.3. Analysis. Analyses were conducted via STATA Version 14 [33]. Descriptive statistics were conducted for all the included measures. Three hierarchical multiple regression analyses were conducted, testing the relationship between social network variables and social support with each loneliness domain: social loneliness, romantic loneliness, and family loneliness. Hierarchical modelling was chosen as it allowed for a differential comparison of the predictive power of certain social characteristics on loneliness. For example, hierarchical modelling could disentangle what proportion of the variance in romantic loneliness could be explained by a participants’ intimate partner relationships and what proportion could be explained or even buffered by a participant’s other networks, like family relationships or access to social support.

2.3.1. Model Building. To understand how participants’ perceptions of their relationships with family, friends, and intimate partners impacted their family, social, and romantic loneliness, respectively, the three models included (a) measures of rated importance and satisfaction with family networks in the family loneliness model, (b) measures of importance and satisfaction with old and current friend networks in the social loneliness model, and (c) rated importance and satisfaction with intimate partner networks in the romantic loneliness model.

For the remaining predictors (social support subdomains, ‘substitute’ network groups, and homelessness status), univariate tests using linear regression were conducted with each loneliness variable to determine which should be included in the multivariate model, using a generous significance level of $\alpha = 0.1$ [34, 35].

The order variables were added into hierarchical models as follows:

- (1) Homelessness status (e.g., current vs. prior homelessness) if significant at a univariate level
- (2) Social support domain variables if significant within univariate level analyses
- (3) Social network variables specific to loneliness types (e.g., rated importance and satisfaction with family relationships in the family loneliness model)
- (4) Compensatory/substitute social network variables for the remaining network groups, including pet ownership selected through univariate analyses (e.g., rated importance and satisfaction with service provider relationships in the family loneliness model).

3. Results

3.1. Participants. Participants were identified as 49.6% ($n = 64$) “male,” 42.6% ($n = 55$) “female,” and 7.8% ($n = 10$) as “transgender,” “intersex,” “nonbinary,” or “gender-fluid.” Seventeen participants (13.2%) were Aboriginal, and 31%

($n = 40$) were born outside Australia. Around 64% were currently homeless (leaving 35.7% formerly homeless).

3.2. Profile of Social Network Characteristics. Less than half of the participants reported feeling “satisfied” or “very satisfied” with most of their networks, including family (34.1%), current friends (52.3%), old friends (48.8%), and intimate partner/s (40.6%). Over one-quarter of the participants identified old friends (27.3%) and intimate partners (28.9%) as not at all important to them relative to the other network groups. Only 17.2% and 13.3% of participants identified family and current friends as not important to them, respectively. Over two-thirds of participants (70%, $n = 90$) reported that at least one of their network groups had zero members. Most commonly, 44.4% ($n = 55$) participants reported having 0 intimate partner/s. Of the total sample, 24% ($n = 31$) reported having a pet. Comparatively, relationships with service providers were the best quality. Almost two-thirds reported that they were satisfied with their service provider networks. Fewer than 5% of participants identified service providers as unimportant to them, relative to other network groups, the smallest proportion of any group. Univariate testing was undertaken between each type of loneliness, social support, and social network variables (see Table 1). All variables associated with a loneliness subscale (at $p \leq 0.10$) were included in the multivariate model for that type of loneliness. Although not included in the table below, homelessness status was significantly associated with family loneliness at a univariate level ($p \leq 0.10$), and social and romantic loneliness were not ($p > 0.10$).

3.2.1. Family Loneliness Model. Table 2 displays the results of a hierarchical regression with several predictors regressed onto family loneliness, including variables identified as significant ($p \leq 0.10$) in Table 1.

Step one: Being formerly homeless was significantly associated with a 0.64 increase in family loneliness compared to being currently homeless ($p = 0.02$).

Step two: Controlling for homelessness, no social support variables significantly predicted family loneliness ($p \geq 0.05$). Homelessness status was no longer a significant predictor.

Step three: Controlling other variables, every one-unit increase in the rated importance of family relationships was associated with a 1.37 nonsignificant increase in family loneliness ($p = 0.15$). Every one-unit increase in satisfaction with family relationships was associated with a significant 0.33-unit increase in family loneliness ($p < 0.0001$). This step provided the largest increment of R^2 , accounting for 24% of the variance of family loneliness ($p < 0.0001$).

Step four: Every one-unit increase in the rated importance of intimate partners was associated with a corresponding nonsignificant 0.52 decrease in family loneliness ($p > 0.05$). Every one-unit increase in satisfaction with intimate partners was associated with

a significant 0.14 increase in family loneliness ($p = 0.03$). Satisfaction with old and current friends and having a pet(s) each had a negligible and non-significant effect on family loneliness ($p > 0.05$).

3.2.2. Social Loneliness. A hierarchical multiple regression model was conducted, where nine predictors listed in Table 3 were all regressed onto social loneliness as follows:

Step one: Tangible and emotional/informational support had negligible effects on social loneliness ($p > 0.05$). However, every one-unit increase in positive social interaction support was associated with a corresponding 0.30 increase in social loneliness. This step represented the highest increment of variance explained compared to all subsequent steps.

Step two: Every one-unit increase in the rated importance of old friends was associated with a significant increase of 1.33 in social loneliness ($p = 0.03$). Every increase in the rated importance of current friends was associated with a significant increase of 1.91 social loneliness points ($p = 0.01$). Rated satisfaction with current friends had a small, nonsignificant effect on social loneliness ($p > 0.05$). The association between positive social interaction support and loneliness (step one) remained significant within this step ($p = 0.05$).

Step three: One-unit increases in importance rating with service providers were associated with a 0.66 decrease in social loneliness, albeit nonsignificant ($p > 0.05$). Satisfaction with intimate partners had a negligible and nonsignificant effect on social loneliness ($p > 0.05$). The association between social loneliness and positive social interaction support and importance scores with old friends was no longer significant following the addition of an extra variable.

3.2.3. Romantic Loneliness. A hierarchical multiple regression model was conducted; regressing variables onto romantic loneliness are listed in Table 4.

Step one: Every one-unit increase in affectionate support was significantly associated with a 0.70 increase in romantic loneliness. Emotional/informational support, positive social interaction support, and tangible support were not significantly related to loneliness ($p > 0.05$).

Step two: Controlling for other variables, the rated importance of intimate partners significantly predicted romantic loneliness: every one-unit increase in importance was associated with a corresponding 5.85-unit increase in loneliness ($p \leq 0.001$). For every 1-unit increase in satisfaction with intimate partner/s, there was a corresponding increase of 0.26 in romantic loneliness ($p = 0.002$). The association between affectionate support and romantic loneliness was no longer statistically significant. This step contributed the largest increment to R^2 , explaining 23.85% of the variance in romantic loneliness.

TABLE 1: Univariate analyses of family, social, or romantic loneliness with social support subscales and network-specific rated importance and rated satisfaction scores.

	Family Loneliness	Social Loneliness	Romantic Loneliness
<i>Social support subtypes</i>			
Emotional Information	$F(1, 125) = 16.75^*$	$F(1, 125) = 4.70^*$	$F(1, 125) = 13.41^*$
Affectionate	$F(1, 126) = 15.29^*$	$F(1, 127) = 2.77$	$F(1, 126) = 34.34^*$
Positive social interaction	$F(1, 126) = 10.16^*$	$F(1, 127) = 18.22^*$	$F(1, 126) = 9.37^*$
Tangible	$F(1, 126) = 5.72^*$	$F(1, 127) = 7.63^*$	$F(1, 126) = 13.49^*$
Overall support	$F(1, 125) = 16.85^*$	$F(1, 125) = 9.61^*$	$F(1, 125) = 23.27^*$
<i>Rated network importance</i>			
Current friends	$F(1, 125) = 0.26$	$F(1, 126) = 10.18^*$	$F(1, 125) = 2.86^*$
Family	$F(1, 125) = 23.88^*$	$F(1, 126) = 0.79^*$	$F(1, 125) = 0.01$
Old friends	$F(1, 125) = 0.00$	$F(1, 126) = 7.55^*$	$F(1, 125) = 2.84^*$
Intimate partner	$F(1, 125) = 2.79^*$	$F(1, 126) = 0.22$	$F(1, 125) = 47.68^*$
Service providers	$F(1, 125) = 9.71^*$	$F(1, 126) = 8.37^*$	$F(1, 125) = 8.87^*$
<i>Rated satisfaction with network</i>			
Current friends	$F(1, 125) = 3.33^*$	$F(1, 126) = 8.97^*$	$F(1, 125) = 0.06$
Family	$F(1, 126) = 59.07^*$	$F(1, 127) = 0.01$	$F(1, 126) = 0.0$
Old friends	$F(1, 126) = 3.93^*$	$F(1, 127) = 1.54$	$F(1, 126) = 2.25$
Intimate partners	$F(1, 125) = 21.3^*$	$F(1, 126) = 3.20^*$	$F(1, 125) = 19.14^*$
Service providers	$F(1, 125) = 0.01$	$F(1, 127) = 0.02$	$F(1, 126) = 2.94^*$
Pet(s) ownership	$F(1, 126) = 2.68^*$	$F(1, 127) = 0.03$	$F(1, 126) = 2.12^*$

Step three: Every one-unit increase in the rated importance of service providers was associated with a 0.67 nonsignificant increase in romantic loneliness. Every one-unit increase in the perceived importance of current friends was associated with a 0.80-point decrease in romantic loneliness, but this difference was also not statistically significant ($p \geq 0.05$). Satisfaction with service providers, importance ratings of current and old friends, or having a pet(s) did not significantly predict romantic loneliness ($p \geq 0.05$). Importance ratings and satisfaction with intimate partners still significantly predicted romantic loneliness ($p < 0.005$).

4. Discussion

This study aimed to understand the social roots of loneliness amongst a sample with lived experience of homelessness. Descriptive statistics revealed that most participants perceived each network—current and old friends, intimate partners, family, and service providers—as somewhat important to them, relative to the other networks. Unfortunately, the majority reported feeling dissatisfied in their relationships with these networks, apart from service providers where only two in five were dissatisfied. These findings reflect relational discord where participants' relationship satisfaction levels did not match how personally important they perceived these relationships to be.

Theory posits that people feel lonely when their relationships are incongruent with how they would ideally like them to be [36]. It would follow that the more important participants felt a network was and the more satisfying and supportive they found these relationships, the less lonely they would feel. We found (with few exceptions) that the reverse trend occurred: participants who rated relationships as more important, satisfying, and supportive tended to feel lonelier. In the case of friendships and social loneliness,

relationship satisfaction was not even statistically associated with loneliness. Given that most participants felt unsatisfied with their networks, it makes sense that the more important a network was to a participant, the more sad or isolated they would feel when relationships within this network are not satisfying. However, the reasons behind positive associations between social support, relationship satisfaction, and loneliness are less obvious.

Results around social support and loneliness point to a broader pattern: participants who engaged with and were supported more by their networks appeared to be lonelier than those who engaged less. Those with more access to affectionate support, social interaction support, and emotional informational support tended to experience increased romantic loneliness, social loneliness, and family loneliness, respectively. None of these findings remained statistically significant once social network variables were included in models, suggesting that the impact of social support on loneliness may be partially explained by participants' subjective assessments of the importance of and satisfaction with relationships providing this support.

Our findings also suggest that participants did not prioritise loneliness when deciding how satisfied they felt with their social networks. One explanation is that participants may have evaluated relationships as more "satisfying" when they helped them navigate the everyday difficulties of homelessness. Previous qualitative findings suggested that homeless friendships were fostered more on a need to survive, through ensuring and sharing food, shelter, and safety rather than fulfilling personal connections and difficult circumstance-bred social distrust [13]. Similar findings have been found in familial and intimate partner relationships: Solarz and Bogat's [37] study of shelter residents found that families were the most common source of negative support (making life more difficult) across networks. Watson's study [38] described homeless women's

TABLE 2: Hierarchical regression analyses of homelessness status, social support, and social network variables regressed onto family loneliness.

	Model 1	Model 2	Model 3	Model 4
Intercept	3.32	2.16	1.20	0.65
Homeless status	0.64 [0.089–1.84]*	0.27 [–0.29, 0.84]	0.11 [–0.70, 0.60]	0.16 [–0.34, 0.67]
<i>Social support</i>				
Emo/Info		0.27 [–0.47, 0.58]	0.26 [–0.01, 0.52]	0.21 [–0.06, 0.47]
Pos. interaction		0.05 [–0.22, 0.31]	0.09 [–0.14, 0.32]	0.08 [–0.15, 0.31]
Affectionate		0.19 [–0.07, 0.46]	0.01 [–0.23, 0.24]	0.06 [–0.20, 0.32]
Tangible		–0.08 [–0.33, 0.17]	–0.06 [–0.28, 0.15]	–0.11 [–0.33, 0.11]
<i>Network variables</i>				
Family				
Importance			2.36 [–0.10, 2.84]	1.33 [–0.84, 5.51]
Satisfaction			0.33 [0.19, 0.47]*	0.26 [0.12, 0.515]*
Intimate partner importance				–0.52 [–1.45, 3.59]
Satisfaction				0.14 [0.07, 0.38]*
Current friend satisfaction				0.04 [–0.14, 0.22]
Old friend satisfaction				–0.03 [–0.13, 0.13]
Pet(s) ownership				0.06 [–0.51, 0.63]
Model statistics	$F(1, 123) = 5.30$ $p = 0.023$	$F(5, 119) = 3.85$, $p = 0.003$	$F(7, 117) = 10.4$, $p < 0.0001$	$F(12, 112) = 6.57$ $p < 0.0001$
Adjusted R^2	0.03	0.01	0.35	0.35

*Confidence interval does not include zero.

TABLE 3: Hierarchical regression analyses of social support and social network variables regressed onto social loneliness.

	Model 1	Model 2	Model 3
Intercept	3.18	2.68	2.90
<i>Social support</i>			
Emo/Info	-0.07 [-0.29, 0.14]	-0.05 [-0.26, 0.16]	-0.04 [-0.25, 0.17]
Pos. interaction	0.30 [0.12, 0.49]*	0.20 [0.01, 0.39]*	0.18 [-0.01, 0.38]
Tangible	0.07 [-0.10, 0.24]	0.10 [-0.07, 0.27]	0.09 [-0.08, 0.26]
<i>Network variables</i>			
Old friend importance		1.33 [0.14, 2.5]*	1.06 [-0.183, 2.32]
Current friend importance		1.91 [0.44, 3.38]*	1.78 [0.30, 3.27]*
Satisfaction		0.02 [-0.12, 0.17]	0.03 [-0.11, 0.18]
Service provider satisfaction			-0.66 [-1.7, 0.37]
Intimate partner satisfaction			-0.01 [-0.10, 0.11]
Model statistics	$F(3, 121) = 6.52,$ $p = 0.00$	$F(7, 117) = 5.25,$ $p = 0.00$	$F(8, 116) = 4.52,$ $p = 0.0001$
Adjusted R^2	0.12	0.19	0.19

*Confidence interval does not include zero.

TABLE 4: Hierarchical regression analyses of social support and social network variables regressed onto romantic loneliness.

	Model 1	Model 2	Model 3
Intercept	0.75	-0.78	-0.60
<i>Social support</i>			
Emo/Info	0.03 [-0.41, 0.48]	0.13 [-0.25, 0.50]	0.12 [-0.27, 0.51]
Pos. interaction	-0.14 [-0.53, 0.24]	0.06 [-0.26, 0.39]	0.09 [-0.28, 0.45]
Affectionate	0.70 [0.33, 1.08]*	0.33 [-0.01, 0.66]	0.36 [-0.02, 0.73]
Tangible	0.18 [-0.19, 0.53]	0.05 [-0.25, 0.36]	0.07 [-0.24, 0.38]
<i>Network variables</i>			
Intimate partner			
Importance		5.85 [4.05, 7.66]*	5.76 [3.53, 7.99]*
Satisfaction		0.26 [0.10, 0.43]*	0.28 [0.11, 0.46]*
Service provider(s)			
Importance			0.67 [-0.15, 2.87]
Satisfaction			-0.08 [-0.29, 0.14]
Current friend importance			-0.80 [-3.55, 1.96]
Old friend importance			0.08 [-2.51, 2.67]
Pet ownership			-0.28 [-1.10, 0.53]
Model statistics			
Adjusted R^2	0.24	0.30	0.43

*Confidence interval does not include zero.

“survival sex” in exchange for shelter and safety, rather than emotional connection. Relationships may be “satisfying” in their ability to provide support and resources, but our research shows that they were associated with loneliness as they did not meet emotional needs.

Other research has found that people experiencing homelessness sometimes isolate themselves from family and old (often prehomeless) friends to maintain well-being and a valuable social identity [13, 39]. This allowed them to hide their ‘shameful’ homeless experience and preserve an unstigmatized identity in the eye of valued connections. Similarly, Belle [22] found mothers in poverty to be sometimes engaged in “therapeutic withdrawal,” that is, self-isolation away from demanding networks to preserve mental health. The same may have occurred in the current sample amongst those with disconnected family relationships, or amongst the many participants who did not have an intimate partner. Many reported being satisfied with not having an

intimate partner (potentially by avoiding stress and complexity involved in having a partner), but still reported feeling romantically lonely. These findings show that isolation can be a strategy to maintain well-being despite substantial costs (loneliness).

Given the health risks of loneliness [40] and the threat it can pose to maintaining a tenancy [2], one would hope that once individuals exited homelessness and had stable accommodation, they might have more headspace to find ways to reduce loneliness. Unfortunately, loneliness levels were not significantly lower amongst the formerly than the currently homeless, suggesting that obtaining housing did not automatically lead to community reintegration. Bell and Walsh [1] identified reasons that some find it difficult to connect posthomelessness, including residual internalised exclusion and stigma from homelessness, which makes socializing uncomfortable and feelings of “survivor guilt” and the fear of losing still-homeless friends.

This study also explored whether other types of relationships such as formal connections with service providers, pets, or even family-like friendships can counteract the effects of absent or low-quality relationships on loneliness. Whilst univariate analyses initially indicated that these relationships reduced loneliness, this was no longer the case in the multivariate analysis when original relationship predictors were added (e.g., family relationships for family loneliness). Whilst beneficial and important, these relationships did not fully compensate for absent or poor-quality original relationships in their effects on loneliness.

4.1. Implications for Service Providers. Participants tended to have their most satisfying relationships with service providers, relative to other networks. Emerging theory has posited that the stigmatising and othering process of seeking support from homeless services may drive people's exclusion and dislocation from other relationships. Dej [41] theorises that the homelessness service sector inadvertently reinforces the social exclusion of people who are homeless by emphasising homelessness as a personal responsibility. To access support and housing from homelessness services, a person must adopt a role of being flawed but redeemable and in need of care. Dej argues that through this process, people position themselves as "less than" and risk broader exclusion from greater society. As such, reforming a sector that centres the structural/systemic causes and solutions of homelessness could disrupt broader social stigma around homelessness and may reduce the disconnection and loneliness those who have experienced homelessness often feel from mainstream society.

Acknowledging that structural service system reform is ambitious and will take time, service providers can play a vital role in the interim to assist clients to build up new supportive connections and relationships in their new housed environment to increase belonging. This study shows that practitioners' assessment of clients' relational needs should put aside assumptions about loneliness: loneliness will only be prevented/overcome when individuals are supported to engage in meaningful relationships with the exact source of their loneliness. For example, if a person experiences romantic loneliness, making a new friend—whilst potentially valuable—will not ameliorate loneliness. Service providers can support lonely recently-housed clients by helping them to (a) identify the social source of their loneliness (i.e., what kinds of relationships do they value and who would they like to connect with?) and (b) find the means to (re)establish these connections, providing support to recognise positive and healthy relationships.

People exiting homelessness may need support to move beyond a 'survival' schema in evaluating relationships they relied on whilst homeless, to one prioritising meaningful connection. Joining new social groups can successfully reduce long-held beliefs of social isolation amongst people experiencing homelessness [42]. Of course, reforming long fractured relationships can be fraught and take time. Family members or long disconnected friends of clients may require their own support to ease the reconnection process and help them form better quality relationships in the long term [43].

4.2. Limitations. Our recruitment strategy for formerly homeless participants relied primarily on services supporting people experiencing socioeconomic disadvantage, meaning that our sample was likely to be experiencing ongoing issues. Also, because data collection focused primarily on those accessing services, findings would have excluded those barred from or not using services, who would likely report different satisfaction levels with service providers than those continuing to access services. Consequently, our findings cannot be generalised to all with past experiences of homelessness.

The current study measured the perceived availability of social support for informal supports such as friends but not for formal supports, such as service providers. Future researchers may find it interesting to repeat social support measurement once for each type of support (i.e., formal and informal) to determine how support received from different sources impact loneliness.

Finally, this study considered people experiencing homelessness a homogenous category, which is incorrect [10, 44]. Future research should adopt an intersectional approach, exploring how people experiencing different types of homelessness experience loneliness in unique ways. Unfortunately, the current sample size prohibited the use of methodologies that would facilitate the analysis of differences in characteristics and histories, e.g., structural equation modelling.

5. Conclusion

The current study found (with few exceptions) that the more important and satisfying a person rated a social network to be and the more social support available, the lonelier they tend to feel. Past research suggests this may be because the material conditions of homelessness meant that participants had to prioritise relationships that would help them navigate the everyday difficulties of homelessness rather than provide them with emotional closeness and connection. This experience of loneliness may continue when exiting homelessness. Service providers can support clients exiting homelessness by working with clients to identify the cause of loneliness and improving the conditions and quality of their relationships.

Data Availability

The data that support the findings of this study are available upon request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Additional Points

What is known about this topic? (i) Apart from the aged, loneliness research has rarely focused on marginalised groups. (ii) Loneliness may jeopardise rehousing efforts of people experiencing homelessness by prompting a return to homeless connections. (iii) Amongst mainstream populations, engaging with more satisfying and supportive relationships reduces or prevents loneliness. *What this paper*

adds? (i) This study explored how loneliness relates to social network and support characteristics amongst people with lived experience of homelessness. (ii) Against expectations, the more supportive, important, and satisfying participants deemed their relationships to be, the lonelier they tended to feel. (iii) To survive homelessness, people may prioritise relationships affording resources and safety over those that assuage loneliness. People exiting homelessness can be supported to (re)prioritise emotional connections with valued networks to reduce loneliness.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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