Research Article

Structure and agency in capabilities-enhancing homeless services: Housing first, housing quality and consumer choice

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Funding information
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Abstract
The capabilities approach, a framework for understanding and measuring inequality, stipulates that equality is best understood as the freedom to do and be within a particular context. Homelessness has been referred to as a situation of ‘capabilities deprivation’, and the extent to which homeless services restore or enhance capabilities is of increasing interest. As part of a large, eight-country study of homelessness in Europe, we examined the extent to which adults with histories of

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homelessness perceived the services they receive as capabilities-enhancing. We collected data at two time points: baseline ($n_{t1} = 565$) and follow-up ($n_{t2} = 399$). Measures included perceived capabilities, choice and housing quality. Participants engaged with Housing First (HF) programmes perceived services as more capabilities-enhancing than participants engaged with treatment as usual (TAU); this relationship was mediated by consumer choice and perceived housing quality. Implications for social policy, practice and training are discussed.

**KEYWORDS**
capabilities, homelessness, housing first

1 | INTRODUCTION

Homelessness is a situation of extreme unfairness that severely restricts individuals’ freedom to achieve their full potential and live a dignified, fulfilling life. Homelessness is both cause and consequence of a vicious cycle of experiences that compromise people’s mental health, trigger or exacerbate addictions, and increase exposure to violence, trauma and social isolation (Goodman, 1991; Gwadz, Nish, Leonard, & Strauss, 2007; Hopper, Bassuk, & Olivet, 2010; McNaughton, 2008). Homelessness is also associated with lost social ties and social roles (Shinn et al., 2007). In essence, homelessness strips away the personal, material and social resources individuals need to live a self-determined life.

In his capabilities approach, Sen (1980) proposed that, to accurately measure human development, we must examine individuals’ freedom and self-determination. ‘Capabilities’ refer to the freedom an individual has to be and do in a given context, whereas ‘functionings’ are manifestations of capabilities in concrete choices of who to be and what to do (Batterham, 2019; Sen, 1992). For example, when a person can access education if they wish, education is a capability. When a person chooses to study medicine, education is a functioning. Because the capabilities approach accounts for contextual constraints and affordances that determine freedom to do and be, it is a useful framework for understanding circumstances of extreme inequality such as homelessness.

Nussbaum (2000) identified 10 central functions that all individuals should be capable of: life, bodily health and integrity, senses, imagination, and thought, emotions, practical reason, affiliation with others, connections with other species, play and control over environment. Functioning in these capabilities domains is influenced by internal factors such as traits and other individual differences, and external factors like material and social resources. Internal and external factors can constrain or expand opportunities to actualize capabilities. For example, a wealthy family affords a child a range of educational opportunities, which, in turn, afford freedom to develop intellectual and career functionings. In contrast, poverty constrains opportunities not only for education but also for functioning in basic capabilities domains such as health and longevity (Sen, 1985, 1988). However, external factors like a strong social welfare system can ameliorate the effects of poverty and provide resources that broaden people’s capabilities (Sen, 1999). In the present research, we examined the extent to which individuals perceive the supports they receive from homeless services as facilitating functioning within central capabilities domains.

The experiences before, during and after homelessness constrain central capabilities, and so homelessness is a situation of ‘capabilities deprivation’ (Batterham, 2019) or ‘capabilities failure’ (Shinn, 2015). Mcnaughton Nicholls (2010), building on Sen, argued that a safe and secure home is fundamental to development, recovery and functioning in these capabilities domains. ‘To have control over one’s environment, to have a home in which we can
meet our own needs as private individuals free from the interference of others’ (Mcnaughton Nicholls citing King, 2003, p. 96) is a foundation from which an individual can mobilize external affordances and develop internal affordances necessary for capabilities functioning.

Despite the fundamental roles of shelter, home and control over environment in capabilities, the dialogue between homelessness research and the capabilities approach has only begun (e.g., Hopper, 2007; Kerman & Sylvestre, 2019; Mcnaughton Nicholls, 2010; Shinn, 2015). We build on previous work with an examination of participants’ perceptions of services as facilitating functioning in central capabilities domains. Because of its emphasis on self-determination, agency and choice as integral to quality of life (Wong, Stanton, & Sands, 2014), and on quality of life as a key indicator of equality and justice, the capabilities approach offers a valuable framework for assessing the efficacy of homeless services and shaping systems change in homeless services (Sacchetto et al., 2018).

Throughout this article, we use the term ‘treatment as usual’ (TAU) to refer to existing homeless services available to participants in their communities. TAU includes drop-in centres, outreach services, short-term accommodation, transitional accommodation and group homes (Busch-Geertsema & Sahlin, 2007; Wong, Park, & Nemon, 2006). TAU services that provide accommodation usually do so on a congregate basis that brings together groups of individuals with diverse support needs (Watts & Blenkinsopp, 2021). To maintain order, health and safety in these settings, service users’ daily routines and activities are often highly regulated and surveilled (Busch-Geertsema & Sahlin, 2007; Sahlin, 2005). TAU are environments in which individuals often feel they have to trade functioning in one capabilities set for functioning in another (Mcnaughton Nicholls, 2010). For example, self-determination is reduced to a series of false choices: you can live in gender-segregated accommodation away from your partner, you can give up your pet. Some individuals refuse accommodation in homeless services because for them, costs of these trade-offs are too high (Asmussen, Romano, Beatty, Gasarch, & Shaughnessey, 1994; Lincoln, Plachta-Elliott, & Espejo, 2009).

In contrast, Housing First (HF) is underpinned by a service user-driven, recovery-oriented and harm-reduction value system that prioritizes empowerment and self-determination (Padgett, Henwood, & Tsemberis, 2016; Tsemberis, 2010). HF is a supported housing programme specialized for homeless adults with mental illness that provides independent scatter-site housing along with tailored wraparound support via Assertive Community Treatment (ACT) or Intensive Case Management (ICM) (Tsemberis & Eisenberg, 2000; Tsemberis, 2010). HF has an extensive track-record and evidence base for housing people faster and keeping them housed longer, in independent community-based accommodation than TAU (e.g., Nelson, Aubry, & Lafrance, 2007; Stefancic & Tsemberis, 2007).

Compared to TAU, HF is consistently associated with greater choice in housing and services and with greater mastery, a dimension of self-determination (Greenwood, Schaefer-McDaniel, Winkel, & Tsemberis, 2005; Manning & Greenwood, 2019). Choice is an important prerequisite for empowerment, and empowering homeless services are hypothesized to be capabilities-enhancing (Shinn, 2015). For example, having choice over who to live with and whether people can visit enhances the capability domain ‘affiliation’. Choice over treatment decisions and over meals is likely to afford both physical and psychological well-being in capabilities domains ‘bodily health’, ‘sense, imagination, thought’ and ‘emotions’. These capabilities domains align with conceptualizations of recovery from homelessness as multifaceted and comprising both rehabilitation and growth (Manning & Greenwood, 2019). HF programmes aim at mobilizing environmental resources that empower service users to identify and pursue their individualized recovery goals, both rehabilitation (e.g., mental health, physical health, substance use) and growth (e.g., education, employment, social connections and community integration; Tsemberis, 2010).

Because HF provides independent, scatter-site accommodation without treatment preconditions or setting rules (beyond a standard lease agreement and communication with the HF team), it reduces the extent to which individuals trade functioning in some capabilities domains for others (Mcnaughton Nicholls, 2010). Participants in HF programmes tend to rate their housing as better quality than participants in traditional homeless services (Patterson et al., 2013). Key dimensions of housing quality include privacy, safety and spaciousness (Toro et al., 1997). As noted by Mcnaughton Nicholls (2010), ‘home’ is fundamental to central capabilities (King, 2003; Nussbaum, 2003). Homeless services that provide a comfortable and safe home afford individuals opportunities to gain or regain functioning in many capabilities domains.
1.1 | The present study

Building on the capabilities approach (Nussbaum, 1992; Nussbaum & Sen, 1993; Sen, 1993, 2004a, 2004b) and recent scholarship on housing, homelessness and capabilities (Batterham, 2019; Mcnaughton Nicholls, 2010; Shinn, 2015), we start from the assumption that home is fundamental to functioning in both basic and higher capabilities domains. Home affords ontological security, which is the experience of privacy, safety and control over one's environment (Padgett, 2007). From the secure foundation of a home of one's own, individuals are freer to become who they want to be and do what they want to do. We hypothesized that, controlling for baseline differences at Time 1, at Time 2, (a) participants in HF programmes experience their services as more capabilities-enhancing than participants engaged with TAU and that (b) participants in HF programmes experience more choice over housing and services, and more housing quality, which would, in turn, explain the positive relationship between HF and capabilities.

We tested these hypotheses with data collected at two time points as part of a large study of adults' experiences of homelessness in eight European countries: France, Ireland, Italy, the Netherlands, Poland, Portugal, Spain and Sweden (masked for review). Our interdisciplinary consortium consists of researchers and practitioners in these eight countries who are experts in homeless services and recovery from homelessness. Each has established translational research programmes with connections to statutory and voluntary organizations that provide housing and other support services to adults with current or recent experiences of homelessness.

2 | METHOD

The lead consortium partner obtained ethical approval from their university's institutional review board and from the European Commission (EC) (IRB; EU ethics reference masked for review). All partners also either applied for and received ethical review from their own organizations, or their organization approved the research on the basis of evidence of ethics approval from both the lead university and from the EC.

2.1 | Recruitment and data collection procedures

Consortium partners developed a protocol for recruitment and data collection procedures and agreed to follow the protocol in each study site. To do so, partners worked with gatekeepers at organizations that provide services to homeless adults to identify eligible individuals and invite them to participate. Eligible participants were age 18 years or older and sufficiently fluent in the language of their country of residence to understand the questionnaire items. Our sample was recruited mostly from homeless services, but in France, researchers recruited from an existing list of individuals who had participated in a previous study of HF implementation. Because individuals in TAU frequently move out of services and can be difficult to track over time, we expected higher rates of attrition in the TAU sample than those in the HF sample, so we over-sampled TAU participants. We aimed at recruiting 45 TAU participants and 38 HF participants in each country for an overall sample size of 500.

To ensure consistency across sites, we followed best practices for translation and back-translation (Beaton, Bombardier, Guillemin, & Ferraz, 2000) of study materials prior to data collection. Then, researchers met participants individually at a location of their choice. Each researcher obtained written informed consent, then orally administered the questionnaire and recorded participants' responses. In return, participants received a €20 shopping voucher.

Researchers entered participants' responses into a standardized data file that was sent to the second author, who cleaned, merged and managed all 16 (eight countries, two time points) data sets. See (Greenwood et al., 2020a) for more details on recruitment, data collection and data management procedures.
2.2  |  Participant characteristics

Using these procedures, we obtained a convenience sample of participants from 46 organizations that provide HF services and 53 organizations in the staircase continuum of homeless services (TAU). The number of participants recruited from a given service/organization ranged from 1 to 26. At Time 1, 43.4% \((n = 245)\) participants were engaged with HF and 55.2% \((n = 320)\) were engaged with TAU.

The Time 1 sample consisted of 565 eligible participants (see Table 1 for participant characteristics by country and type of service). Most were male \((n = 431, 74.3\%)\) and ranged in age from 19 to 84 years \((M = 47.38, SD = 11.71)\). Most were single \((n = 470, 81.0\%)\). Almost half had completed the equivalent of high school education \((n = 277, 47.1\%)\), but most were unemployed \((n = 483, 82.1\%)\). Although we did not collect race/ethnicity data, we know 85% were citizens of the country in which they lived, and 79% were born in the country in which they lived. Mental health, physical health and substance use problems were common: 55.3% \((n = 321)\) had physical health problems, 37.9% \((n = 220)\) had mental health problems, and 39.0% \((n = 226)\) had addiction or substance use problems (see Table 1).

Most HF participants were living in independent accommodation with off-site case management supports \((n = 209, 90.1\%)\), and on average, they had spent 79.55% \((SD = 36.49)\) of the prior 6 months in private accommodation. In contrast, TAU spent 9.20% \((SD = 26.65)\) of the prior 6 months in private accommodation. Most TAU participants were living in a hostel or type of homeless accommodation with onsite supports \((n = 182, 58.5\%)\), whereas some were engaged with outreach services and rough sleeping \((n = 31, 10\%)\). On average, TAU participants spent 49% \((SD = 45.60)\) of the prior 6 months in accommodation for the homeless, compared to HF, who spent 5.67% \((SD = 19.65)\) of the prior 6 months in homeless accommodation. None of the HF group was currently rough sleeping.

Participants engaged with HF programmes had a lifetime average of 4.55 \((SD = 7.80)\) years rough sleeping compared to participants engaged with TAU \((M = 2.83, SD = 5.09)\) \((t_{330.31} = 2.59, p = .01, \text{adjusted for unequal variances})\). The difference between HF \((M = 2.89, SD = 5.49)\) and TAU participants \((M = 3.32, SD = 4.49)\) on number of years spent living in non-HF accommodation for the homeless was not significant \((t_{363} < 1.0, p < 1.0)\).

2.3  |  Measures

2.3.1  |  Consumer choice

A 15-item measure widely used in research on perceptions of programme characteristics assessed perceived choice in housing and services (Srebnik, Livingston, Gordon, & King, 1995) \((e.g., \text{did you choose where to live?})\), with 1 = no choice and 5 = completely my choice. The measure has demonstrated excellent reliability in past studies \((e.g., \text{Greenwood et al., 2005})\) and the present study \((\text{Cronbach’s} \alpha = .92)\).

2.3.2  |  Housing quality

A widely used six-item measure of perceived housing quality (Toro et al., 1997) assessed perceptions of housing in terms of comfort, safety, spaciousness, privacy, quality and friendliness on a scale ranging from 1 = very bad to 4 = very good. The measure demonstrated excellent reliability with similar samples \((e.g., \text{Nelson, Sylvestre, Aubry, George, & Trainor, 2007})\) and the present study \((\text{Cronbach’s} \alpha = .85)\).
TABLE 1  Participant characteristics Time 1

<table>
<thead>
<tr>
<th></th>
<th>France</th>
<th>Ireland</th>
<th>Italy</th>
<th>Netherlands</th>
<th>Poland</th>
<th>Portugal</th>
<th>Spain</th>
<th>Sweden</th>
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<td>HF</td>
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<td>46</td>
<td>32</td>
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<tr>
<td>Lifetime rough Slept M</td>
<td>3.6</td>
<td>4.38</td>
<td>3.98</td>
<td>1.07</td>
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<td>1.48</td>
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<tr>
<td>SD</td>
<td>9.86</td>
<td>6.58</td>
<td>5.45</td>
<td>1.76</td>
<td>3.65</td>
<td>3.68</td>
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<td>n</td>
<td>37</td>
<td>26</td>
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<td>44</td>
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<td>45</td>
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<td>–</td>
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<tr>
<td>Lifetime homeless accommodation Age M</td>
<td>40.71</td>
<td>2.95</td>
<td>4.74</td>
<td>1.56</td>
<td>4.15</td>
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<tr>
<td>SD</td>
<td>4.11</td>
<td>2.09</td>
<td>6.51</td>
<td>3.65</td>
<td>5.54</td>
<td>3.68</td>
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<td>35</td>
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<tr>
<td>% Male</td>
<td>63.40%</td>
<td>86.70%</td>
<td>76.30%</td>
<td>117.10%</td>
<td>76.80%</td>
<td>11.10%</td>
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<td>n</td>
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<td>38</td>
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<tr>
<td>% Single</td>
<td>95.10%</td>
<td>93.30%</td>
<td>65.80%</td>
<td>100%</td>
<td>97.40%</td>
<td>76.10%</td>
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<td>46</td>
<td>–</td>
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</tr>
<tr>
<td>% ≥ High School</td>
<td>87.50%</td>
<td>93%</td>
<td>36.80%</td>
<td>50.00%</td>
<td>76.30%</td>
<td>88.90%</td>
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<td>n</td>
<td>41</td>
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<td>44</td>
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<td>45</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>% Unemployed</td>
<td>76.70%</td>
<td>88.90%</td>
<td>89.50%</td>
<td>95.60%</td>
<td>55.30%</td>
<td>87%</td>
<td>–</td>
<td>–</td>
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<tr>
<td>n</td>
<td>40</td>
<td>30</td>
<td>38</td>
<td>45</td>
<td>38</td>
<td>46</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>% Immigrant</td>
<td>35.90%</td>
<td>23.10%</td>
<td>15.80%</td>
<td>11.10%</td>
<td>15.80%</td>
<td>15.20%</td>
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<td>46</td>
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</tbody>
</table>
2.3.3 | Satisfaction with services

The 11-item Self-Help Agency Satisfaction Scale (SHASS; Segal, Redman, & Silverman, 2000) assesses satisfaction with service characteristics on a scale from 1 = very dissatisfied to 4 = very satisfied. This measure demonstrated excellent reliability in past research (Segal et al., 2000) and the present research (Cronbach's $\alpha = .90$).

2.3.4 | Achieved capabilities

Perceptions of services as enhancing functioning in key capabilities domains were assessed with a 21-item measure, the Achieved Capabilities Questionnaire for the Homeless Services Context, adapted from the Achieved Capabilities Questionnaire for the Community Mental Health Context (Sacchetto et al., 2016), which was developed in collaboration with mental health service users to capture contextually relevant and meaningful freedoms to be and to do (Nussbaum, 2000). Participants indicated their agreement on a scale from 1 = strongly disagree to 5 = strongly agree with statements that correspond with central capabilities domains. For example, ‘Through the service, I have more control over decisions that affect my life’, in the capabilities domain ‘practical reason’ (Nussbaum, 2000; Shinn, 2015). The measure demonstrated excellent internal consistency reliability with the present sample (Cronbach’s $\alpha = .95$).

3 | RESULTS

3.1 | Retention and attrition analysis

We achieved a 68% retention rate at Time 2. The Time 2 sample consisted of 399 participants: 384 people who completed both questionnaires and an additional 15 Swedish participants who only completed the questionnaire at T2. The mean time between questionnaires was 11 months, with a range from 4.11 to 21.73 months. The median time to second interview was also 11 months, and 75% of the T2 sample ($n = 258$) had completed the second questionnaire within 12 months. As expected, because participants engaged with TAU are more transient than participants in HF, it took longer to locate and re-administer the questionnaire to TAU participants than HF participants. Of the 86 participants who completed the T2 questionnaire more than 1 year after T1, 59.3% were engaged with TAU and 40.7% were engaged with HF.

As expected, more HF than TAU completed the follow-up questionnaire: 54.4% of TAU participants completed questionnaires at both time points, whereas 83.3% of HF participants completed both ($\chi^2 = 52.30, p < .001$). We found no other evidence of differential attrition from our analysis of demographic characteristics of T1 and T2 samples. That is, there were no differences between individuals who completed only T1 and individuals who completed both T1 and T2 on any measured demographic variables: age, gender, number of children, education, employment status, citizenship or relationship status. As would be expected, among the T2 sample, HF participants spent 86.7% of the prior 6 months in private accommodation ($SD = 30.64$) compared to TS, who spent 17.75% ($SD = 36.10$) of the prior 6 months in private accommodation. Furthermore, as expected, on average, TAU participants spent 47.42% ($SD = 47.77$) of the prior 6 months in accommodation for the homeless, compared to HF participants, who spent 1.66% ($SD = 11.80$) of the prior 6 months in homeless accommodation.

3.2 | Preliminary analyses

Descriptive statistics for choice, housing quality and capabilities measured at T1 and T2 are presented in Table 2. Bivariate correlations among T1 and T2 study variables are presented in Table 3. All correlations were significant and in the expected direction; that is, both choice and housing quality at T1 and T2 were positively correlated with capabilities at T1 and T2.
### Table 2: Means and SD

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>Housing first</th>
<th>Traditional services</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td><strong>Capabilities (T1)</strong></td>
<td></td>
<td>3.95</td>
<td>.66</td>
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<tr>
<td></td>
<td></td>
<td>3.87</td>
<td>.7</td>
</tr>
<tr>
<td><strong>Housing quality (T1)</strong></td>
<td></td>
<td>3.3</td>
<td>.59</td>
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<td></td>
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<td>3.26</td>
<td>.58</td>
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<tr>
<td><strong>Choice (T1)</strong></td>
<td></td>
<td>4.32</td>
<td>.66</td>
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<td></td>
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<td>4.35</td>
<td>.52</td>
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### Table 3: Bivariate correlations

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<th>Variable</th>
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<td>2. Capabilities T2</td>
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<td>3. Housing quality T1</td>
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<td>4. Housing quality T2</td>
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<td>5. Choice T1</td>
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<td>6. Choice T2</td>
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*p < .05, **p < .001, ***p < .0001.
3.3 | Multi-level analyses

We employed multi-level mediation analysis using Mplus v.8 (Muthén & Muthén, 2019) to test our main study hypotheses that participants in HF programmes experience their services as more capabilities-enhancing than participants engaged with TS. Our data were nested, so that participants were clustered within the services from which they were recruited at T1. Participants engaged with the same service were likely to be more similar to one another than to participants engaged with different services. Consequently, our data would violate statistical assumptions of independence and so it was therefore important to capture and account for random effects associated with service via multi-level modelling (MLM; Finch & Bolin, 2017). In our MLM, the service from which participants were recruited at T1 served as the Level 2 random effects cluster variable. T1 choice, housing quality and capabilities served as Level 1 control variables while we examined the fixed effects associations of T2 choice and housing quality to T2 capabilities. It is important to note that our sample of countries ($k = 8$) is insufficient to include as a Level 2 variable, which is why we included only service as a Level 2 variable (Kreft, Kreft, & de Leeuw, 1998).

Our data analysis plan included the following steps:

1. Identify any significant associations of demographic characteristics with T2 capabilities.
2. Determine the intraclass coefficient for service clusters and whether either the intercept or slope coefficients for the Level 2 service cluster variable are significant. If so, we proceed with a series of multi-level models (MLMs) in which we do the following:
3. Determine the associations of T1 measures of capabilities, perceived housing quality and perceived choice to T2 capabilities, controlling for Level 2 service associations and any significant demographic characteristics.
4. Determine the associations of T2 measures of perceived housing quality and perceived choice, controlling for Level 2 service associations and any significant T1 covariates.
5. Perform mediation analysis to test the hypothesis that the effects of programme type on T2 capabilities are carried through perceived housing choice and perceived housing quality.

First, we inspected the data to determine which demographic variables should be included in the MLM as covariates. Only level of education was reliably associated with capabilities scores. Participants with up to primary education perceived their homeless services as more capabilities-enhancing than participants with more than primary education ($t_{342} = 3.05, p = .002$). Other demographic variables (e.g., age, gender, citizenship status and relationship status) were not significantly associated with participants’ capabilities scores at Time 2. We therefore investigated whether education continued to be a significant coefficient in the MLM context. We also used T1 measures to control for baseline differences in our tests of T2 associations of programme type (HF vs. TAU) to perceived choice, perceived housing quality and capabilities.

In the following MLM analyses, all the predictors were mean-centred (Finch & Bolin, 2017). We report coefficients and their significance levels obtained in each analysis to show how the patterns changed as we built toward the mediation model. The baseline, or null effects model, was run initially to obtain the estimates of residual and intercept variance considering only the Level 2 service cluster variable (Finch & Bolin, 2017). We included clusters of $n > 3$; that is, where three or more participants were recruited from one site, which yielded 56 clusters and an average cluster size of 5.55. The intraclass correlation was .23, which confirmed that it was important to account for Level 2 variance in service clusters when testing our hypotheses about the relationship of programme type, choice and housing quality to participants’ capabilities scores. Participants’ individual capabilities scores were significantly different from one another ($β = .54, SE = .08, p < .001$). There were significant differences among the service clusters in intercepts ($γ = 3.61, SE = .07, p < .001$) and slopes ($γ = .17, SE = .07, p = .02$).

Second, we identified a direct effect of programme type (HF vs. TAU) on capabilities scores, controlling for Level 2 service clusters. The slope coefficient was significant ($β = .52, SE = .16, p < .001$). Variation in intercepts across the programmes was marginally significant ($γ = .21, SE = .11, p < .06$), and variation within programmes remained
significant ($\beta = .54$, $SE = .07$, $p = .001$). This finding confirmed Hypothesis 1 that, controlling for variance in Level 2 service clusters, participants in HF programmes experienced their services as more capabilities-enhancing than participants in TAU. Significant variation within programmes remained unexplained by programme type.

Third, we examined the relationships of T1 control measures, education, capabilities, perceived choice and perceived housing quality, to T2 capabilities scores. Both T1 capabilities ($\beta = .53$, $SE = .09$, $p < .001$) and T1 perceived choice ($\beta = .16$, $SE = .07$, $p < .016$) were significantly associated with T2 capabilities and so were included as covariates in the next model, which tested the direct effects of T2 measures perceived choice and perceived housing quality on T2 capabilities. The coefficient for education was marginally significant ($\beta = -.27$, $SE = .15$, $p = .06$), and the coefficient for T1 perceived housing quality was not significant ($\beta = .07$, $SE = .12$, $p = .56$).

Fourth, we examined the direct effects relationships of the hypothesized T2 mediators, perceived choice and perceived housing quality, to T2 capabilities, while controlling for Level 2 service cluster, T1 capabilities and T1 perceived choice and perceived housing quality. These results demonstrated that both T2 perceived choice ($\beta = .19$, $SE = .10$, $p = .05$) and T2 perceived housing quality ($\beta = .26$, $SE = .06$, $p = .001$) were significant predictors of T2 capabilities. Greater choice in housing and services and better housing quality predicted higher capabilities scores. In addition, T1 capabilities remained significant ($\beta = .42$, $SE = .08$, $p < .001$), indicating that capabilities at T1 predicted capabilities at T2. Neither T1 choice ($\beta = .02$, $SE = .10$, $p < 1.0$) nor T1 housing quality ($\beta = -.08$, $SE = .09$, $p < 1.0$) predicted T2 capabilities.

These findings indicated that further mediation analysis was warranted to test Hypothesis 2, that the relationship of programme type (HF vs. TAU) to capabilities is indirect, carried through perceived choice and perceived housing quality. We tested whether this relationship holds while controlling for T1 measures (Level 1) and service cluster (Level 2).

### 3.3.1 Mediation

The full model of direct effects of T1 and T2 variables predicting capabilities at Time 2 is presented in Table 4 and Figure 1. T1 capabilities predicted T2 capabilities, but T1 choice and T1 housing quality did not. Neither the coefficient for group nor the variance in slopes associated with Level 2 service clusters was significant, but the variance in intercepts was ($\gamma = 18.07$, $SE = 5.99$, $p = .003$), indicating that significant differences among the programmes in average capabilities remained unexplained.

<table>
<thead>
<tr>
<th>T A B L E 4</th>
<th>Parameter estimates from multilevel model for capabilities predicted by programme type, choice, and housing quality</th>
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<tr>
<td><strong>Fixed effects</strong></td>
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<td>Estimate</td>
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<td>Capabilities T1</td>
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<td>Housing quality T1</td>
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<td>Programme (HF = 1, TS = 0)</td>
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<td>Choice T2</td>
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<tr>
<td>Housing quality T2</td>
<td>.33</td>
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<td>Total indirect effect</td>
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<tr>
<td>Indirect effect: Choice</td>
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<td>Indirect effect: Housing quality</td>
<td>.17</td>
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<td>Direct effect: Group</td>
<td>-.22</td>
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Our mediation hypothesis, that the effect of group type on perceived capabilities is indirect, carried through choice and housing quality was supported (Figure 2). The total indirect effect from programme type to capabilities was significant ($\beta = .47$, $SE = .16$, $p = .003$). Both the indirect pathway through perceived choice ($\beta = .30$, $SE = .15$, $p = .04$) and through housing quality were significant ($\beta = .17$, $SE = .05$, $p = .001$). The direct effect from programme type to capabilities was not significant ($\beta = -.22$, $SE = .17$, $p < 1.0$). These findings demonstrated concurrent indirect effects of perceived choice and housing quality on capabilities measured at T2. That is, across eight European countries, we observed that participants engaged with HF report more perceived capabilities than participants engaged with TAU, and this relationship is explained by more perceived choice and better housing quality.

We tested an alternative time-lagged model in which programme characteristics measured at T1 mediated the relationship of programme type to capabilities at T2, controlling for T1 capabilities scores and T2 perceived choice and housing quality. None of these indirect effects were significant, which indicated that the indirect effects are concurrent and not sequential.

4 | DISCUSSION

We obtained evidence that adults engaged with HF programmes experience their services as enhancing central capabilities domains in eight different European countries across Northern, Western and Central Europe. In this study, we identified a direct relationship between programme type and capabilities scores, which confirmed our first
hypothesis that HF service users would report more capabilities than service users in TAU. The results of our mediation analysis confirmed our hypothesis that choice over services and housing quality would explain the positive relationship between HF and service users’ capabilities. Next, we reflect on the importance of capabilities-enhancing homeless services for promoting recovery and increasing quality of life for adults with histories of homelessness and complex needs. We highlight the importance of consumer choice in capabilities-enhancing homeless services and the importance of home as a place of safety and source of ontological security where individuals can rebuild their lives and pursue their goals. Homeless services are mediating structures with the potential to constrain or afford opportunities for individuals to develop or regain the central capabilities of a life well-lived. Choice over housing and services is a key indicator of the extent to which homeless service users experience freedom to do and to be, and participants in HF programmes have consistently reported more choice than participants engaged with traditional services (e.g., Greenwood et al., 2005; Tsemberis, Gulcur, & Nakae, 2004). Our findings support ongoing European efforts to scale up and scale out HF programmes and phase out TAU that undermine residents’ choice, agency that are related to some of the most basic dimensions of quality of life (Busch-Geertsema & Sahlin, 2007; Mcnaughton Nicholls, 2010; Stark, 1994).

Participants engaged with HF programmes perceived their accommodation to be higher quality in terms of safety, privacy, spaciousness and other features than did participants in TAU. As Padgett (2007) noted, a home is a place of security and constancy that is integral control over one’s outcomes, which is tightly bound up with having the freedom to do and be. For participants in our study, the better they perceived the quality of their housing on these dimensions, the more they experienced their services as capabilities-enhancing. Previous research by Padgett (2007) demonstrated the importance of ‘home’ in contrast to ‘housing’ for ontological security, which, drawing from Giddens (1990) and Laing (2010), she defined as that ‘feeling of well-being that arises from a sense of constancy in one’s social and material environment which, in turn, provides a secure platform for identity development and self-actualization’ (p. 1926). We interpret our findings to indicate that through the setting features of independent, scatter-site housing and service user-led, recovery-oriented supports, HF programmes provide a needed platform for building a home and fostering ontological security.

Consumer choice and housing quality are only two of many setting characteristics that are important for restoring or enhancing homeless service users’ capabilities. For example, staff values are one setting characteristic that we are interested in but could not assess in the present study. Previous research found that staff in HF programmes were more likely to hold values aligned with consumer choice in terms of treatment and services (Henwood, Shinn, Tsemberis, & Padgett, 2013). Future research should investigate whether staff values are associated with experiences of services as capabilities-enhancing.

Homeless services may be characterized by multiple capabilities-enhancing features, but without adequate material supports, including an adequate supply of affordable housing, minimum liveable income and access to adequate healthcare, homeless service users’ freedom to be and to do will continue to be constrained. Given the limited supply of affordable housing and the low caps on rent supplements in most European countries, the range of possible neighbourhood choices will continue to be constricted.

Well-being is influenced by neighbourhood features such as crime and density, and the presence of community resources such as schools and shops, and public transportation links (Altschuler, Somkin, & Adler, 2004; Eibich, Krekel, Demuth, & Wagner, 2016). In HF programmes with high fidelity, service users have choice over both their apartment and its location, but in practice, this is very difficult to achieve given the limited availability of social housing, the high costs of private rental apartments in many locations, and the stigma and discrimination homeless adults continue to experience from landlords and neighbours (Lyon-Callo, 2001). While it is our role as researchers to identify setting features that are capabilities-enhancing, and to encourage translation of these findings into practice and policy, it takes coordinated effort at multiple levels of the ecology of homelessness to achieve the kinds of systems change that reverse inequality and unfairness in the everyday experiences of individuals with histories of homelessness and complex needs.
4.1 Limitations and future directions

Reflecting on the challenges we faced in conducting this study across eight European countries, we identified aspects of the population, sampling procedures and data collection that should be considered when evaluating our interpretations of these findings. First, although the individuals we recruited all had histories of homelessness and complex needs, they were non-equivalent at baseline. However, because we measured the study variables at two time points, we were able to control for baseline differences in our mediation analysis. Another aspect of our sample was that participants were nested within programmes, which meant that their data were not independent. We recruited participants from 105 services, and some programmes were represented by only one participant. Because MLM assumes clusters include more than one person, this necessitated the exclusion of some participants from our multi-level analysis. The important question is, however, whether excluding these participants on this basis could bias our analyses, and we do not have any evidence to suggest that it would. In future research with multiple HF and TAU programmes, we recommend researchers ensure that they can recruit a minimum number of participants from each service so they may all be included in analyses.

We expected that TAU participants would be more difficult to retain for follow-up, and to mitigate this, we over-sampled TAU participants at T1. At T2, we retained 68% of the total sample of 565 participants recruited at T1. We compared the characteristics of participants that dropped out to those who remained in the study and found that, at least on measured variables and found no evidence of differential attrition between Time 1 and Time 2. Researchers made every effort to follow up with participants by using information collected in participant locator sheets and by following up with services. We did our best to reduce attrition and to mitigate its effects on results, but many factors influencing attrition, especially among the TAU group, were beyond our control.

Finally, there was more heterogeneity in the types of services that participants in the TAU group were recruited from rather than in the types of services participants in the HF group were recruited from. This type of heterogeneity in TAU is a common feature of this type of research, in which TAU participants are recruited from various housing, health, and support services that engage with individuals in homelessness. A potential solution to this challenge in future research is to only recruit TAU participants from a particular type of homeless service, such as congregate residences. However, in practice, it may prove difficult to recruit adequate numbers of participants with these restrictions in all circumstances, and so researchers will have to weigh the costs and benefits.

4.2 Conclusions: Implications for practice and policy

We obtained consistent evidence across eight European countries that people engaged with HF programmes experience services as more capabilities-enhancing than people engaged with TS. Importantly, we obtained evidence that choice over housing and services (agency) and housing quality (structure) differentiate HF from TAU and that each is associated with experiences of HF programmes as capabilities-enhancing (O'Shaughnessy et al., 2020; O'Shaughnessy & Greenwood, 2020). We know from previous research that HF can promote ontological security, mastery and recovery (Padgett, 2007; Greenwood et al., 2020b; Greenwood et al., 2005), and findings from this study indicate that choice over housing and support and housing quality are features of HF that can afford adults with histories of homelessness and complex needs important resources that enhance their freedom to be and do as part of a full, meaningful and dignified life.

These findings support the reconfiguration of homeless services toward housing-led models, especially Pathways Housing First (Tsemberis & Asmussen, 1999), given its strong evidence base for ending homelessness and promoting recovery. However, systems change toward housing-led homeless services must occur at multiple levels. Building the capacity of cities and countries to offer affordable, independent housing integrated into communities is an integral step in this process. Independent, scatter-site housing eliminates the stigma of congregate living and encourages community integration. In addition, homeless services should increase their organizational capacity to enhance service users’ capabilities through empowering, client-led, recovery-oriented supports that afford service
users access to health care, nutrition, education, training, citizenship activities, affiliation, recreation and self-expression. Finally, social care and social work educational programmes and professional organizations should expand and promote training in client-led, empowering, recovery-oriented support.

Although the HF approach may facilitate greater functioning in a broader range of capabilities domains than TAU, its impact is limited in economic and social systems that perpetuate inequality in income and opportunity. As long as adults with histories of homelessness, substance dependence and mental illness remain stigmatized and marginalized in the broader society, the ceiling on their central capabilities will remain lower compared to other citizens. Until adequate housing and liveable income are realized, homelessness will persist as a situation of unfairness and inequality. Service providers and policymakers at multiple levels of the ecology of homelessness must coordinate systems change to reverse the inequalities associated with homelessness.

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DATA AVAILABILITY STATEMENT
The data that support the findings of this study are available from the corresponding author upon reasonable request.

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