



Differences between homeless women and men before and after the transition from shelter to community living: A longitudinal analysis

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Abstract

Social quality is the extent to which people are able to participate in social relationships under conditions which enhance their well-being, capacities and potential and enables them to shape their own circumstances and contribute to societal development. We assessed whether women in homeless shelters differed from men on social quality factors that constitute the quality of their daily life and whether factor scores changed at a different rate for women and men after shelter exit. Data were collected as part of a randomised controlled trial. In 18 shelters across the Netherlands, 183 participants were recruited between December 2010 and December 2012 and followed for 9 months. Adults were eligible if they were about to move from shelter to (supported) independent housing and their shelter stay had been shorter than 14 months. At baseline, women were significantly younger than men. They were more likely to have children, to have minor children staying with them, to be lower educated, to be unemployed and to have been victimised than men. Women had used more services and reported lower self-esteem, less satisfaction with health and empowerment and higher psychological distress. They were less likely than men to have used alcohol excessively or cannabis. We found no significant differences between women and men in changes over time on the social quality factors. As women were disadvantaged at baseline compared to men regarding many factors, we concluded that women in homeless shelters are a particularly vulnerable group. Moreover, an opportunity remains for shelter services to improve women's social quality during and after their shelter stay.

KEYWORDS

community living, gender, homeless women, homelessness, shelter services, social quality

1 | INTRODUCTION

Little is known about homelessness among women. Women are underrepresented in homelessness statistics and, especially in Europe, published findings are predominantly focused on homelessness among men (Pleace, 2016). This imbalance does not pertain only to women who are sleeping rough or are couch surfing but also to women in homeless shelters. Even less is known about the well-being of these women during and after shelter exit.

Available research suggests women's homelessness is more often hidden. Homeless women tend to make less use of homelessness services and will postpone entering the service system until sources of informal support are depleted (Mayock & Bretherton, 2016). Due to this last-resort selection, sheltered homeless women could be a particularly vulnerable group compared to sheltered men.

Several studies have directly compared homeless women and men; the majority was cross-sectional and conducted in the United States. They consistently show that homeless women are younger and more likely to care for children than men, although findings are mixed regarding whether women are more likely to be married or divorced (Beijer & Andréasson, 2009; Calsyn & Morse, 1990; Crystal, 1984; DiBlasio & Belcher, 1995; Edens, Mares, & Rosenheck, 2011; North & Smith, 1993; Ritchey, La Gory, & Mullis, 1991; Roll, Toro, & Ortola, 1999; Stein & Gelberg, 1995; Zugazaga, 2004). While results concerning education are also ambiguous, it is clear that homeless women are more often unemployed (Calsyn & Morse, 1990; Crystal, 1984; DiBlasio & Belcher, 1995; Edens et al., 2011; Gelberg & Linn, 1992; North & Smith, 1993; Ritchey et al., 1991; Roll et al., 1999; Zugazaga, 2004). Consequently, they receive less income from work (Kassenbrock, 2016; North & Smith, 1993; Roll et al., 1999) and more welfare benefits, especially women with children (Calsyn & Morse, 1990; North & Smith, 1993; Roll et al., 1999). Some studies indicate that homeless women also receive housing assistance more often (Calsyn & Morse, 1990; Herman, Struening, & Barrow, 1994) and spend more time in temporary housing (e.g. staying with family) and less time sleeping rough than men (Calsyn & Morse, 1990; Edens et al., 2011; North & Smith, 1993; Ritchey et al., 1991; Stein & Gelberg, 1995). Homeless women more often have a history of abuse in child- and adulthood (Edens et al., 2011; North & Smith, 1993; Ritchey et al., 1991; Zugazaga, 2004). Many women report feeling unsafe in shelters and experience violence while homeless (Calsyn & Morse, 1990; Gelberg & Linn, 1992; Kassenbrock, 2016; Roll et al., 1999; Stein & Gelberg, 1995).

Besides dissimilarities in living conditions, there seem to be differences in access to and use of support resources. Homeless women experience less social support (Calsyn & Morse, 1990; North & Smith, 1993; van den Dries et al., 2016), although their social networks seem larger (Ritchey et al., 1991; Roll et al., 1999). Some studies show that homeless women use more health and social services than men (Calsyn & Morse, 1990; Edens et al., 2011), but do not have fewer unmet care needs (Calsyn & Morse, 1990; DiBlasio & Belcher, 1995; Herman et al., 1994). Even if the number of unmet needs is similar, the nature of women's needs could be different

What is already known about this topic

- Research from the United States indicates homeless women are more often younger, responsible for children, unemployed and victimised and use more services than homeless men.
- Homeless women are less likely to be involved in criminality and substance abuse.

What this paper adds

- Before shelter exit in the Netherlands, homeless women differed from men on many of the factors identified in earlier research, except that the proportion of women and men involved in criminal activity was similar. Additionally, we found that homeless women had more health-related problems than men.
- After shelter exit, the rate of change did not differ between women and men on any factors, indicating gender differences remained.

(Wolf, Anderson, van den Dries, & Filipovič Hrast, 2016). For example, it has been found that homeless women have a greater need for personal safety services (Calsyn & Morse, 1990; Herman et al., 1994), child care and parenting services (DiBlasio & Belcher, 1995) and health and medical care (Herman et al., 1994).

Unmet care needs, together with a high risk of violent victimisation and responsibility for minor children, could leave homeless women to cope with aggravated health problems. Although several studies show they experience more physical symptoms (Gelberg & Linn, 1992; Muñoz, Crespo, & Pérez-Santos, 2005; Ritchey et al., 1991) and a higher risk of being hospitalised than homeless men (Beijer & Andréasson, 2009), other studies have not demonstrated a physical health difference (Calsyn & Morse, 1990; DiBlasio & Belcher, 1995; Edens et al., 2011). Similarly, findings regarding gender differences in mental health are mixed (Beijer & Andréasson, 2010; Calsyn & Morse, 1990; Crystal, 1984; Edens et al., 2011; North & Smith, 1993; Ritchey et al., 1991; Roll et al., 1999; Stein & Gelberg, 1995; Zugazaga, 2004). Homeless men's health could be affected more by substance use, because they more often report substance use problems (Calsyn & Morse, 1990; Gelberg & Linn, 1992; North & Smith, 1993; Roll et al., 1999; Stein & Gelberg, 1995; Zugazaga, 2004) and a need for substance abuse services (DiBlasio & Belcher, 1995; Herman et al., 1994). Besides substance use, studies consistently show that homeless men are involved in the criminal justice system more often than women (Calsyn & Morse, 1990; Crystal, 1984; Edens et al., 2011; Herman et al., 1994; North & Smith, 1993; Roll et al., 1999; Stein & Gelberg, 1995; Zugazaga, 2004).

A comprehensive assessment of differences between sheltered homeless women and men in Europe would be a useful addition to the current knowledge, which is mainly based on research from the United States. Furthermore, by examining whether gender

differences are maintained or change after shelter exit, we can draw attention to the possible specific needs of women moving from shelter to community living. These differences could have consequences for follow-up service provision. As the proportion of women using homelessness services seems to be increasing (Mayock & Bretherton, 2016), it becomes more important to enhance services for them, which could also improve the well-being and development of children who accompany them.

In the present study, we applied a model of social quality as a theoretical framework, to ensure a comprehensive overview of the factors that may influence the quality of daily life of these women. Van der Maesen and Walker (2012) defined social quality as the extent to which people are able to participate in social relationships under conditions which enhance their well-being, capacities and potential and enables them to shape their own circumstances and contribute to societal development. According to this theory, there is a mutual influence between self-realisation of individuals and formation of collective identities. This interdependency is formed in the context of two basic tensions, which can be represented on two axes: (a) society and the individual; (b) formal relationships (e.g. in systems, institutions, organisations) and informal relationships (e.g. in communities, families, groups). Factors of the social quality model at micro level, referred to as constitutional factors, give important clues to service providers as to what is necessary in the recovery process of clients. Constitutional factors enable people to become competent social actors who can change or transform opportunities and contingencies and create new perspectives for relationships. The two crossing axes create a framework with four conditions that determine the quality of daily life: living conditions, social embeddedness, societal embeddedness and self-regulation. Living conditions refers to the extent to which people have material and immaterial

resources over time. Social embeddedness is the degree to which people experience meaningful, reciprocal positive relationships with others based on shared values and norms in society. Societal embeddedness means the extent to which people are integrated (or are able to participate) in their community or society. Finally, self-regulation is the degree to which people can alter their own internal states, processes and responses—thoughts, feelings and actions—in anticipation of future goals.

This explorative study addresses two research questions: (a) Do women in homeless shelters differ from men with regard to constitutional factors of social quality when they are about to make the transition to community living? And (b) Are there any differences between women and men in the rate of change of these factors during the 9 months after shelter exit? The variables used, grouped in the four conditions of the social quality framework (Wolf, 2016), are shown in Figure 1.

2 | METHOD

2.1 | Participants and procedure

For the present study, we used data of a randomised controlled trial, which assessed the effectiveness of critical time intervention (CTI) for people moving from homeless shelters to (supported) independent housing in the Netherlands. CTI is a time-limited, strengths-based intervention for vulnerable people, which bridges the gap between services during times of transition. The trial design, described elsewhere (Lako et al., 2013), complied with the criteria of an accredited Medical Research Ethics Committee (aMREC) and was exempted from formal review by the local aMREC (CMO Region Arnhem-Nijmegen: 2010/247). Data collection was completed October 2013 and findings have been published (de Vet, Beijersbergen, et al., 2017; de Vet, Lako, et al., 2017).

FIGURE 1 Included variables, grouped in the four conditions of the social quality framework (Wolf, 2016)



Between December 2010 and December 2012, 183 clients were recruited in 18 shelters providing residential services to homeless people. One of each shelter's staff members assessed whether clients were eligible, which they were if they: (a) were aged 18 years or over; (b) had stayed at the shelter for less than 14 months; (c) knew when they were going to exit the shelter or had received priority status for social housing; and (d) were moving to housing for which they would have to pay rent without supervision or daily supportive services. Clients were excluded if they were moving to an area where none of the participating organisations provided services. Participants provided informed consent before the baseline interview and afterwards they were randomised to CTI or care-as-usual.

The present study used data from the face-to-face baseline and 9-month follow-up interviews, which were administered by multiple data collectors with relevant academic or vocational degrees, work experience with vulnerable people and the ability to create a positive rapport with participants. They received training from the research team beforehand and follow-up training sessions during data collection. If necessary, interviews were conducted by a multilingual data collector or with an interpreter.

2.2 | Measures

Gender, age, migration background, marital status, having children, history of literal homelessness and education level were assessed at baseline. The social quality factors were collected at baseline and follow-up.

2.2.1 | Living conditions

This condition was assessed with six factors: satisfaction with financial resources, high amount of debt, current employment, satisfaction with housing, satisfaction with safety and victimisation. Satisfaction with financial resources was measured with Lehman's abbreviated Quality of Life Interview (QoLI) (Lehman, 1983): 'How do you feel about (1) the amount of money you get, (2) how comfortable and well-off you are financially, and (3) the amount of money you have available to spend for fun?' Responses ranged from 'terrible' (1) to 'delighted' (7). Cronbach's α of this subscale was 0.85 at baseline and 0.90 at follow-up. Amount of debt, not including mortgages, was assessed with one item from the same instrument. Because of a very skewed distribution (range: €0–€250,000), we dichotomised debts using the median into 'less than €10,000' and '€10,000 or more'. We assessed whether participants were currently employed with one question from the QoLI: 'Are you working now or have you worked during the past year?'. Satisfaction with housing was measured by averaging three items from the QoLI: 'How do you feel about (1) the living arrangements where you live, (2) the privacy you have there, and (3) the prospect of staying on where you currently live for a long period of time?' Responses ranged from 'terrible' (1) to 'delighted' (7). Cronbach's α of this subscale was 0.74 at baseline and 0.78 at follow-up. We

assessed satisfaction with safety with three items from the QoLI: 'How do you feel about (1) how safe you are on the streets in your neighborhood, (2) how safe you are where you live, and (3) the protection you have against being robbed or attacked?' A score was constructed by averaging responses, which ranged from 'terrible' (1) to 'delighted' (7). Cronbach's α was 0.69 at baseline and 0.82 at follow-up. Lastly, we asked the following questions from the QoLI about victimisation: 'In the past year (at baseline)/9 months (at follow-up), were you a victim of (a) any violent crimes such as assault, rape, mugging, or robbery? And (b) any nonviolent crimes such as burglary, theft of your property or money, or being cheated?'

2.2.2 | Social embeddedness

This condition encompasses three factors: support from family members, support from friends or acquaintances, and minor children staying with the participant. The two support measures were assessed with five items from the RAND Course of Homelessness Study (Burnam & Koegel, 1989). Participants reported how often family members and how often friends or acquaintances were available to them for support; for example, to provide them with food or a place to stay or to listen to them when they were talking about themselves or their problems. Responses ranged from 'none of the time' (1) to 'all of the time' (5). Measures were constructed by averaging across items. Cronbach's α was 0.93–0.94 across time points for the family measure and 0.90–0.92 for the friends/acquaintances measure. We assessed whether participants had minor children staying with them by asking if they had (step- or foster)children, what age their children were, and where their children were staying (as part of the QoLI).

2.2.3 | Societal embeddedness

This condition includes three factors: number of unmet care needs, number of types of services used and involvement in criminal activity. The number of unmet care needs participants experienced was assessed using a questionnaire developed by Impuls - Netherlands Center for Social Care Research (Lako et al., 2013), with responses from the Short-Form Quality of Life and Care questionnaire (Wennink & van Wijngaarden, 2004). Participants were asked 'Do you want help with...?' and 'Do you receive help with...?' for six domains, subdivided into 18 items (e.g. finding housing, finances, mental health). Participants indicating they wanted but did not receive help were considered to have an unmet need. We also evaluated the number of different types of services used by participants with a questionnaire created by Impuls - Netherlands Center for Social Care Research (Lako et al., 2013). Participants indicated whether they had used services of certain providers (e.g. general practitioner, dentist, social services) in the past 30 days. The number of services ranged from 0 to 28. Finally, two items from the QoLI showed whether participants had been involved in criminal activity: (a) 'Have you been arrested or picked-up for any crimes in the past year (at baseline)/9 months (at follow-up)?' And (b) 'Did you commit any

offenses in the past year (at baseline)/9 months (at follow-up) in order to receive help or shelter?’

2.2.4 | Self-regulation

This condition was evaluated with six factors: self-esteem, psychological distress, satisfaction with health, excessive alcohol use, cannabis use and satisfaction with empowerment. Self-esteem was measured using the 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1965). Participants indicated whether they agreed with statements about the self, such as: ‘I am able to do things as well as most other people’ and ‘I feel I do not have much to be proud of.’ Answers ranged from ‘strongly agree’ to ‘strongly disagree’ and the sum score ranged from 10 to 40. Cronbach’s α was 0.85–0.90 across time points. Participants’ psychological distress during the past week was measured with the mean score of the 53-item Brief Symptom Inventory (BSI) (Derogatis, 1975). Items describe a variety of complaints, for example: ‘How much were you bothered by nervousness or shakiness?’ Responses ranged from ‘not at all’ (0) to ‘extremely’ (4). At both time points, Cronbach’s α was 0.96. We assessed satisfaction with health with items from the QoL: ‘How do you feel about (1) your health in general, (2) your physical condition, and (3) your emotional well-being?’ The response scale ranged from ‘terrible’ (1) to ‘delighted’ (7). A score was constructed by averaging items; Cronbach’s α was 0.69 at baseline and 0.77 at follow-up. Whether participants had used alcohol excessively (i.e. ≥ 5 drinks a day) or cannabis was assessed with the European Addiction Severity Index (McLellan et al., 1992). Participants indicated for a list of substances which they had used in the past 30 days. Lastly, we measured satisfaction with empowerment with one item devised by Impuls - Netherlands Center for Social Care Research: ‘What would you say: My resilience in general (so how strong I feel) is in my opinion...’ The response scale, adopted from the QoL, ranged from ‘terrible’ (1) to ‘delighted’ (7).

2.3 | Analysis

Analyses were completed using IBM SPSS Statistics 22 for Windows. While computing variables, missing values of scale items were substituted with the mean of the participant’s available items when missing observations did not exceed 20 percent (Shrive, Stuart, Quan, & Ghali, 2006). Based on the remaining amount and pattern of missing data and the results from Little’s MCAR test, which was not significant ($\chi^2(600) = 614.38, p = 0.333$), we assumed data were missing completely at random.

We generated descriptive statistics of baseline data for women and men separately. For socio-demographic characteristics, we assessed bivariate relationships with the variable gender using *t*-tests for continuous variables and Pearson’s chi-squared tests for categorical variables. For the social quality factors at baseline, we used 2-level mixed-effects models, with participants nested within shelter organisations. We decided to use random intercept models for these cross-sectional data because dependencies in the observations could have been introduced by the hierarchical study design (West, 2009): As participants were recruited in different shelters, differences between genders could to some extent be explained by differences in the availability of services between shelter organisations. For continuous variables, we assumed a linear relationship to the independent variable and calculated adjusted mean differences between genders and, for dichotomous variables, we fitted a binomial relationship and calculated adjusted odds ratios. We checked whether count variables followed a Poisson distribution. Due to overdispersion, we fitted a negative binomial relationship for number of unmet needs. For these count variables, adjusted incidence rate ratios were calculated.

To assess whether social quality factors changed differently for women compared to men after shelter exit, we employed 3-level

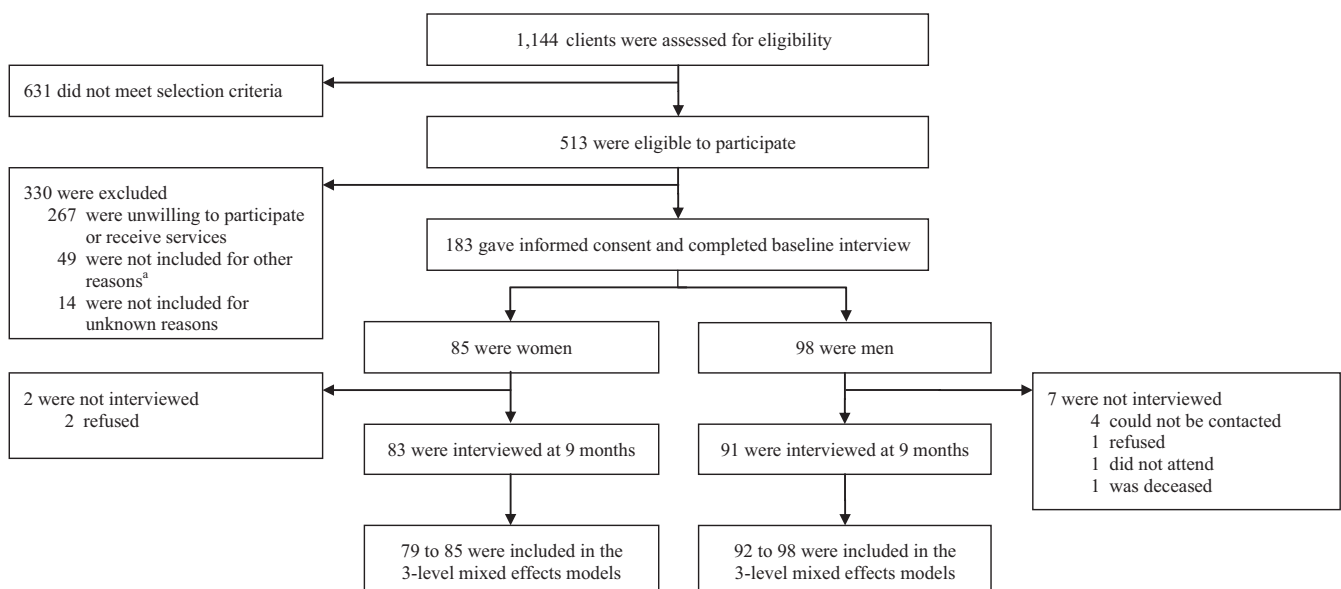


FIGURE 2 Participant recruitment and follow-up flow diagram. ^aMostly because these clients could not be contacted within the predetermined time frame of 2 weeks after shelter exit

mixed-effects models. In these random intercept models, observations were nested within participants and participants within shelter organisations. To adjust for potential confounding, the allocated intervention was entered into models as a covariate and we investigated whether the intervention groups should be analysed separately by also adding interaction effects.

3 | RESULTS

Of the 1,144 clients assessed, 513 people (45%) were eligible (Figure 2). Of those, 183 (36%) agreed to participate: 85 (46%) women and 98 (54%) men. We assessed representativeness by comparing participants to those who refused to participate regarding age, country of birth (i.e. in the Netherlands or abroad), and gender. Participants were significantly older than nonparticipants (mean difference = 5.34 years; $p < 0.001$). No other differences were observed. Two female and seven male participants did not complete follow-up. Because participants cannot be included in mixed-effects models if observations are missing at both time points, the number analysed ranged between 173 and 183, so less than 6% was excluded.

Baseline characteristics are summarised in Table 1 and Table 2. Women were significantly younger than men (mean difference = -5.02 ; CI 95% $-8.33, -1.71$), more likely to have children (odds ratio = 6.63; 95% CI 3.07, 14.33), and less likely to be educated (odds ratio of lowest education level = 1.88; 95% CI 1.02, 3.47; odds ratio of highest education level = 0.21; 95% CI 0.07, 0.63). Baseline gender differences were found in all four conditions of social quality. Women were significantly less likely to be employed (odds ratio = 0.39; 95% CI 0.19, 0.78) and more likely to have been victimised the year before

(odds ratio = 2.92; 95% CI 1.44, 5.91). They were more likely to have minor children staying with them (odds ratio = 16.92; 95% CI 5.82, 49.18). Women used more types of services the 30 days before (incidence rate ratio = 1.39; 95% CI = 1.14, 1.69). Furthermore, women appeared to have more health-related issues, as they were less satisfied with their health (mean difference = -0.41 ; 95% CI $-0.78, -0.05$) and empowerment (mean difference = -0.42 ; 95% CI $-0.84, -0.01$) and experienced more psychological distress (mean difference = 0.16; 95% CI 0.00, 0.32) and lower self-esteem (mean difference = -1.77 ; 95% CI $-3.41, -0.13$). Women were less likely than men to have used excessive amounts of alcohol (odds ratio = 0.18; 95% CI 0.07, 0.46) or cannabis (odds ratio = 0.26; 95% CI 0.10, 0.69).

During follow-up, none of the changes in the social quality factors differed significantly between women and men (Table 2).

4 | DISCUSSION

Before the transition from shelter to community living, women differed from men in all four conditions of social quality. Women were younger, more likely to have children, and less likely to be educated (socio-demographics). Women were more likely to be unemployed and to have been victimised (living conditions). They more often had minor children with them (social embeddedness). Women had used more types of services (societal embeddedness) and were less satisfied with their health and empowerment, had lower self-esteem, and experienced more psychological distress, but were less likely than men to have used alcohol excessively or cannabis (self-regulation). These gender differences mostly disadvantage the women and support the premise that women who reside in homeless shelters are particularly vulnerable. Next to differences before shelter exit, we

TABLE 1 Baseline differences in socio-demographic characteristics between women and men

	Women (N = 85)	Men (N = 98)	
	M (SD)	M (SD)	p-value ^a
Years of age	37.90 (11.22)	42.93 (11.40)	0.003
	Women (N = 85)	Men (N = 98)	
	n (%)	n (%)	p-value ^b
Migration background			0.403
Dutch native	53 (62.4)	70 (71.4)	
First-generation migrant	23 (27.1)	19 (19.4)	
Second-generation migrant	9 (10.6)	9 (9.2)	
Married or in civil partnership	11 (12.9)	12 (12.2)	0.887
One or more children	75 (88.2)	52 (53.1)	<0.001
History of literal homelessness	47 (55.3)	67 (68.4)	0.069
Education level			0.009
Low education level	60 (70.6)	55 (56.1)	
Intermediate education level	21 (24.7)	24 (24.5)	
High education level	4 (4.7)	19 (19.4)	

^at-test. ^b χ^2 test.

TABLE 2 Differences in social quality factors at baseline and in changes over time for women compared to men

	Baseline				Mean difference [95% CI] ^a	Follow-up				Differential mean change [95% CI] ^{b,c}
	Women		Men			Women		Men		
	N	M (SD)	N	M (SD)		N	M (SD)	N	M (SD)	
Continuous factors										
Satisfaction with financial resources	83	2.93 (1.50)	96	2.92 (1.54)	0.00 [-0.45, 0.45]	82	3.14 (1.50)	91	2.92 (1.55)	0.22 [-0.27, 0.71]
Satisfaction with housing	85	4.75 (1.42)	97	4.88 (1.51)	-0.18 [-0.61, 0.25]	83	5.61 (1.33)	91	5.70 (1.25)	0.02 [-0.49, 0.52]
Satisfaction with safety	84	5.43 (1.04)	98	5.45 (1.05)	-0.08 [-0.39, 0.23]	82	5.63 (1.12)	91	5.87 (0.93)	-0.20 [-0.55, 0.14]
Support from family members	83	2.94 (1.45)	93	2.97 (1.32)	-0.03 [-0.44, 0.39]	76	3.23 (1.26)	87	3.20 (1.40)	-0.01 [-0.35, 0.34]
Support from friends or acquaintances	83	3.37 (1.12)	94	3.16 (1.10)	0.21 [-0.12, 0.54]	79	3.37 (1.09)	85	3.35 (1.10)	-0.21 [-0.56, 0.14]
Self-esteem	84	30.36 (5.77)	95	32.13 (5.33)	-1.77 [-3.41, -0.13]	80	30.95 (5.04)	87	32.37 (4.48)	0.55 [-0.89, 1.98]
Psychological distress	82	0.68 (0.53)	94	0.51 (0.54)	0.16 [0.00, 0.32]	78	0.54 (0.51)	84	0.46 (0.56)	-0.07 [-0.22, 0.08]
Satisfaction with health	84	4.43 (1.26)	98	4.84 (1.21)	-0.41 [-0.78, -0.05]	83	4.67 (1.25)	91	5.00 (1.28)	0.13 [-0.22, 0.48]
Satisfaction with empowerment	85	5.11 (1.49)	98	5.53 (1.33)	-0.42 [-0.84, -0.01]	83	5.31 (1.31)	91	5.69 (1.24)	0.05 [-0.35, 0.45] ^d
	Baseline				OR [95% CI] ^a	Follow-up				Differential OR [95% CI] ^{b,e}
	Women		Men			Women		Men		
	N	n (%)	N	n (%)		N	n (%)	N	n (%)	
Dichotomous factors										
High amount of debt (£10,000 or more)	70	32 (45.7)	89	47 (52.8)	0.75 [0.40, 1.42]	75	33 (44.0)	80	47 (58.8)	0.66 [0.23, 1.86]
Currently employed	84	16 (19.0)	98	37 (37.8)	0.39 [0.19, 0.78]	83	24 (28.9)	91	42 (46.2)	1.22 [0.47, 3.19]
Victimised ^f	85	32 (37.6)	98	18 (18.4)	2.92 [1.44, 5.91]	83	12 (14.5)	91	13 (14.3)	0.36 [0.12, 1.09]
Minor children staying with participant	82	38 (46.3)	89	3 (3.4)	16.92 [5.82, 49.18]	81	44 (54.3)	82	7 (8.5)	0.52 [0.10, 2.61]
Involved in criminal activity ^f	85	5 (5.9)	98	14 (14.3)	0.43 [0.15, 1.20]	82	2 (2.4)	90	9 (10.0)	0.91 [0.18, 4.68]
Excessive alcohol use	81	6 (7.4)	91	29 (31.9)	0.18 [0.07, 0.46]	80	10 (12.5)	87	30 (34.5)	1.56 [0.43, 5.59]
Cannabis use	80	6 (7.5)	89	22 (24.7)	0.26 [0.10, 0.69]	80	7 (8.8)	87	24 (27.6)	1.00 [0.24, 4.11]

(Continues)

TABLE 2 (Continued)

Count factors	Baseline				Follow-up				Differential IRR [95% CI] ^{b,c}
	Women		Men		Women		Men		
	N	M (SD)	N	M (SD)	N	M (SD)	N	M (SD)	
Number of unmet care needs	76	1.96 (2.08)	85	1.87 (2.25)	77	0.87 (1.09)	79	1.39 (1.86)	0.64 [0.38, 1.08]
Number of types of services used	83	2.77 (1.71)	92	2.02 (1.33)	80	3.56 (2.16)	86	2.92 (2.19)	0.89 [0.69, 1.16]

Abbreviations: OR, odds ratio; IRR, incidence rate ratio.

^aAdjusted for nesting within organisations. ^bAdjusted for nesting within organisations and within participants and for assigned intervention group. ^cDifference between women and men in change of mean scores over time. ^dThe interaction between variables Gender, Time and Group was significant, which indicates that a subgroup analysis should be performed; this analysis showed that the differential change over time was not significant in both intervention groups. ^eDifference between women and men in change of ORs over time. ^fAt baseline, participants were asked to report about the past year, while at the 9-month follow-up, they were asked about the past 9 months. ^gDifference between women and men in change of IRRs over time. ^h $p < 0.05$, $p < 0.01$, $p < 0.001$.

investigated whether these social quality factors changed differently for women and men after the transition to community living. All social quality factors changed at a similar rate for women and men, indicating that a gap in social quality remains. Potentially, shelter organisations could help close this gap early on by attenuating their residential and follow-up services more to the needs of homeless women.

In the perspective of the social quality theory (van der Maesen & Walker, 2012), homeless women have fewer resources that facilitate participation in society, because they are less educated and more often unemployed (living conditions). We observed that, even though women are lacking these resources, they are not less satisfied with their finances nor do they have more debt than men. An explanation could be that women receive more income from welfare and social benefits, which has been shown in previous studies (Calsyn & Morse, 1990; North & Smith, 1993; Roll et al., 1999). The year before shelter exit, women are more unsafe than men, as they were a victim of violent or nonviolent crime more often (living conditions). Although women are at risk for victimisation, females and males are equally satisfied with their safety at the time of shelter exit. One explanation for this could be that most women have been victimised before coming to the shelter. Earlier research has found that, for women, intimate partner violence is one of the main contributing factors for becoming homeless (FEANTSA, 2015; Mayock, Bretherton, & Baptista, 2016). Another explanation could be that some homeless women have been exposed to victimisation for so long that they have accepted this as the norm. Abundant evidence is available that homeless women frequently experience violence and revictimisation in child- and adulthood (Edens et al., 2011; North & Smith, 1993; Ritchey et al., 1991; Zugazaga, 2004). Having become accustomed to being victimised, these experiences may not influence their perceived safety any longer (Thomas, Bartlett, & Mezey, 1995). In many European countries, mainstream shelter services for homeless people are not specifically geared towards women who have experienced violence (Mayock et al., 2016). Because shelters are generally a male dominated environment, it is important that vulnerable women are stably housed in the community as soon as possible (Mayock, Parker, & Sheridan, 2015). Also, good cooperative links with services for women fleeing domestic violence, as well as with police and other law enforcement services, are essential in helping these women to find permanent housing where their safety can be ensured (FEANTSA, 2007).

Similar to earlier studies (Calsyn & Morse, 1990; Crystal, 1984; DiBlasio & Belcher, 1995; North & Smith, 1993; Stein & Gelberg, 1995), we found that women in homeless shelters more often have dependent children with them than men (social embeddedness). Having to provide for children is a social quality factor that strongly determines the quality of daily life (Wolf, 2016). Caring for children has been shown to be a protective factor for (recurrent) homelessness (Orwin, Scott, & Arieira, 2005; Wechsberg et al., 2003), and motherhood can give meaning to women's lives (van den Dries et al., 2016), but doing so homeless can also be a major source of stress (Milburn & D'Ercole, 1991; North & Smith, 1993). Because

homeless mothers are mostly single, parenthood limits the opportunities homeless women have to obtain resources, develop their potential and capacities and participate in society (van den Dries et al., 2016). They are dependent on the conditional resources available to them, such as affordable childcare facilities, parenting skills training or parent support groups. If shelter services could help mothers access these resources, it might help to diminish some of the differences between women and men. For example, childcare could free up time for mothers to continue their education and, by doing so, improve their job opportunities. In our study, we did not see differences between women and men regarding practical and emotional support from family or friends (social embeddedness). Some earlier studies have shown that homeless women report having fewer sources of informal support (Calsyn & Morse, 1990; North & Smith, 1993), while others have observed that they often have larger social networks compared to men (Calsyn & Morse, 1990; Ritchey et al., 1991; Roll et al., 1999). So far, the evidence regarding gender differences in homeless people's social networks is inconclusive and more research is needed to discover whether and how gender and social support are linked.

Although no association between gender and informal support was found, we did see that homeless women employ more formal support resources, as they reported using more types of services compared to men (societal embeddedness). Similar to the study by Herman et al. (1994), the number of unmet care needs did not differ significantly between women and men. These findings could indicate that access to formal support resources is similar for both genders, but that women experience more care needs in general when they are about to move from shelter to housing. Contrary to previous studies, we did not observe a difference between the proportion of women and men involved in criminal activity (societal embeddedness). Rates of criminal activity were similar during the year before shelter exit (6% among women and 14% among men) and during the 9 months after (2% among women and 9% among men). This surprising finding is difficult to explain. Possibly, the discrepancy is due to the measure employed in our study, which includes not only crimes that participants have been arrested for but also any small offenses that participants may have committed in order to receive help. In earlier research, measures of serious crime, such as being imprisoned or having a criminal record, were generally used. Moreover, previous studies often inquired about lifetime rates or the period before the last episode of homelessness, while we asked participants about events within the past year (Calsyn & Morse, 1990; Edens et al., 2011; North & Smith, 1993; Roll et al., 1999; Stein & Gelberg, 1995; Zugazaga, 2004). Whether rates of criminal activity are more similar between homeless women and men when smaller, more recent offenses are considered, warrants future research.

Having lower self-esteem, more psychological distress and less satisfaction with empowerment and health than men, homeless women may experience more problems with their self-regulation and, therefore, may have fewer personal resources for self-realisation and social interaction. Besides the additional stress that

women could experience from providing for children while homeless, it is probable that these (mental) health-related problems are negatively affected by experiences of victimisation (Tinland et al., 2018). Corresponding to high abuse and revictimisation rates, prevalence of post-traumatic stress disorder has also been found to be high among homeless women (Wolf et al., 2016). Trauma-informed care might help formerly homeless women to work through these experiences and to improve their empowerment and self-esteem accordingly (Elliott, Bjelajac, Fallot, Markoff, & Reed, 2005; Hopper, Bassuk, & Olivet, 2010). It is important to note here that homeless men may also experience problems with their self-regulation, as we found that they use alcohol excessively and cannabis more often than women.

4.1 | Strengths and limitations

This study is unique because it utilises longitudinal data to assess differences between homeless women and men in factors constituting the quality of daily life during and after the transition from shelter to community living. In many other European countries, little research has been conducted on this topic (Mayock & Bretherton, 2016). A strength of this study is that attrition was minimised to only 6 percent, with a population difficult to follow-up (Coen, Patrick, & Shern, 1996). Another strong point is the comprehensive, theoretically founded process that was used to select factors included in the analyses.

A limitation is that the study relies solely on self-report data, which means we can only report participants' subjective experiences. Furthermore, generalisability is limited. The selection criteria and procedure were designed with the aim of the trial in mind. Consequently, findings cannot be extrapolated to those who did not fit the selection criteria (i.e. clients who did not move to (supported) independent housing, had a shelter stay of more than 14 months, were younger than 18 years old) or refused to participate. Particularly, the relatively small proportion of eligible clients who participated (36%) should be acknowledged. Lastly, power may have been an issue concerning our analyses of differential changes over time. One differential change could be considered relevant: Victimisation among women decreased from 38 percent at baseline to 15 percent at follow-up, while among men the proportion remained similar (18% and 14% percent, respectively); however, according to the mixed-effects model the rate of change was not significantly different between genders.

5 | CONCLUSION

Because women are worse off than men regarding many social quality factors before shelter exit, and their situation does not improve significantly relative to men after shelter exit, this could be an opportunity for shelter services to focus their policies on improving women's social quality, and indirectly of their children, during and after their shelter stay. Future research should determine

whether residential and follow-up services that are more attenuated to women's needs, such as parental support and trauma-informed care, can help shelter organisations close this gap between women and men.

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CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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