Self-Harm and Homeless Adults

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Abstract. *Background:* Homelessness is associated with an increased incidence of mental illness and risk of self-harm, including suicide. *Aims:* To assess the prevalence of self-harm (including nonsuicidal self-injury and attempted suicide) among a UK sample of homeless adults and to compare demographic, clinical, and homeless-related variables to determine which are linked to self-harm in this population. *Method:* A sample of 80 homeless adults were interviewed regarding history of self-harm, mental health history, demographic, and homeless-related information. *Results:* Sixty-eight percent of the sample reported past acts of self-harm. Those with histories of self-harm started using significantly more substances since becoming homeless and were younger when they first became homeless. They were also significantly more likely to have a past psychiatric admission and thoughts of self-harm in the past year. *Conclusion:* Self-harm is common among homeless adults and linked to long-term and enduring social and mental health concerns.

Keywords: homelessness, self-harm, suicide, substance misuse, mental illness

Homelessness is recognized as a major social problem in most developed countries (Toro, 2007). It has been estimated that in the United Kingdom there are around 85,000 people sleeping in public spaces or temporary shelters (Kenway & Palmer, 2003), with figures of around 350,000 in the United States and 35,000 in Canada (Murphy, 2000). Homelessness in western countries is linked to mental illnesses including drug and alcohol misuse, psychosis, and depression (Fazel, Khosla, Doll, & Geddes, 2008).

One estimate of mortality in Danish hostel residents suggested that they were six times more likely to die by suicide than the general population (Nordentoft & Wandall-Holm, 2003). Other studies have demonstrated links between completed suicide by homeless people and psychiatric comorbidity (Barak, Cohen, & Aizenberg, 2004), drug or alcohol abuse and recent suicidal ideation (Bickley et al., 2006), and short or repeated hostel stays (Nordentoft & Wandall-Holm, 2003). A UK study reported that homeless adults who committed suicide, when compared with a non-homeless suicide sample, were less likely to have been in contact with services in the past week, had missed their previous psychiatric contact, and were less likely to be compliant with medication (Bickley, et al., 2006).

All of these studies deal with actual death by suicide. Intent to die is considered a key part of the definition of suicide (Silverman, Berman, Sanddal, O'Carroll, & Joiner, 2007). However, in many cases, particularly if nonfatal, suicidal intent is not clear. Suicidal patients vary in the extent to which they are ambivalent, wish to live, or wish to die; not surprisingly, it is the latter group that is at higher risk of suicide (O'Connor et al., 2012). Owing to these ambiguities, "self-harm" has been defined by the UK's National Institute for Health and Clinical Excellence (NICE) as "intentional self-poisoning or injury, irrespective of the apparent purpose of the act" (National Institute for Health and Clinical Excellence, 2004, p. 7). It therefore includes nonsuicidal self-injurious acts as well as suicide attempts. Using such criteria, it has been found that homeless adults who self-harm, compared with domiciled self-harm cases, are more likely to be male, single, unemployed, and have a criminal history (Haw, Hawton, & Casey, 2006).

We investigated the demographic, clinical, and homelessness-related variables in a sample of homeless adults with or without history of self-harm (including nonsuicidal self-injury and suicide attempts).

Method

Participants

We recruited 80 homeless adults from homeless shelters, charitable meals services, and medical services for the homeless in Sheffield, England. The mean age was 35.2 years (standard deviation [*SD*] = 9.2) and 67 (84%) were male.

Definition of Homelessness and Participation

We defined homelessness as: (1) lacking a secure tenancy, (2) accessing services for homeless adults, and (3) self-describing as homeless. This research formed part of a neuropsychological study of this sample, where further details and inclusion criteria are reported (Pluck, Lee, David, Spence, & Parks, 2012). The participation rate was not formally recorded; however, a payment of £30 (US $45) was made to each individual, and a few opted not to participate.

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Procedure

All participants gave written informed consent and the protocol had ethics committee approval. The same doctoral-level psychologist performed all of the interviews, which were conducted in a private office. A semistructured interview schedule, designed for this project, was used to elicit information on demographics including factors linked to homelessness, e.g., past incarceration. It included a brief assessment of depressive symptoms, focusing on type, duration, and effect on social and occupational functioning. The psychologist used this to identify probable lifetime major depression, based on DSM-IV criteria (American Psychiatric Association, 1994). Also recorded was whether or not each individual had ever been admitted to a psychiatric hospital.

All individuals completed the Deliberate Self-Harm Inventory (DSHI). This is a 17-item self-report measure of the frequency of common self-injurious behaviors performed without suicidal intent. This measure was found to have adequate reliability and construct, convergent and discriminant validity when measuring nonsuicidal self-injury by college students (Gratz, 2001). We also recorded details of suicide attempts. All participants completed the Severity of Dependence Scale (Gossop et al., 1995) and the Alcohol Use Disorders Identification Test (AUDIT; Saunders, Aasland, Babor, de la Fuente, & Grant, 1993).

Results

Of the 80 participants, 33 (41%) scored positively on the DSHI for past nonsuicidal self-injury, while 44 individuals (55%) reported past suicide attempts. There was considerable overlap between these groups, with 23 (29%) of the whole sample positive for both. Fifty-four participants (68%) were positive for either nonsuicidal self-injury or suicide attempts, thus fulfilling the NICE definition of self-harm: "intentional self-poisoning or injury, irrespective of the apparent purpose of the act." This latter-category self-harm will be the focus of further analysis. A graphic representation of the categorization is provided in Figure 1.

The 54 individuals with past self-harm were compared with the 26 individuals without such histories. The results are shown in Table 1. The groups did not significantly differ on any of the demographic variables (all $p > .5$). Three clinical variables differed significantly between the groups. Those with histories of self-harm were more likely to report thoughts of self-harm in the past year, were more

Table 1. Comparison of homeless individuals with or without past self-harm

Variable	Self-harm ($n = 54$)	No self-harm ($n = 26$)	Significance
Demographic			
Age[a]	35.4 (8.7)	34.4 (10.4)	$F = .45$, $p = .65$
Male[b]	45 (83.3%)	22 (84.6%)	Fisher's, $p = 1.00$
Education[a]	9.9 (2.8)	10.7 (1.3)	$z = –1.53$, $p = .13$
Ex-prisoner[b]	37 (68.5%)	16 (61.5%)	$\chi^2 = .13$, $p = .71$
Ex-military[b]	6 (11.1%)	1 (3.8%)	Fisher's, $p = .42$
Raised "in care"[b]	17 (31.5%)	5 (19.2%)	$\chi^2 = .78$, $p = .38$
Clinical			
Probable lifetime depression[b]	47 (87%)	19 (73%)	$\chi^2 = 1.50$, $p = .22$
Past-year thoughts of self-harm[b]	20 (37%)	3 (11.5%)	$\chi^2 = 4.40$, $p = .04$
Drugs started since homeless[c]	2.5 (2.4)	1.3 (2.1)	$z = –.22$, $p = .03$
Current IV user[b]	15 (27.8%)	9 (34.6%)	$\chi^2 = .13$, $p = .72$
Severity of dependence	4.4 (5.4)	6.0 (6.0)	$z = –1.25$, $p = .21$
Current alcohol abuse[b,d]	24 (44.4%)	12 (46.2%)	$\chi^2 = 0$, $p = 1.00$
Past psychiatric admission[b]	18 (33.3%)	2 (7.7%)	$\chi^2 = 4.94$, $p = .03$
Homeless			
Rough sleeping[b,e]	9 (16.7%)	6 (23.1%)	Fisher's, $p = .55$
Lifetime homelessness[a]	6.4 (6.5)	4.1 (5.4)	$z = –1.77$, $p = .08$
Age when first homeless[a]	24.7 (9.8)	29.8 (10.5)	$F = 2.14$, $p = .04$
% of lifetime spent homeless	17.0 (15.7%)	11.5 (13.5%)	$z = .17$, $p = .01$

Notes: [a]Data are given in years as means and standard deviations. [b]The actual number and percentage positive for the feature are given. [c]The number of classes of drugs first tried since becoming homeless. [d]The proportion scoring >7 on the AUDIT. [e]Rough sleeping was defined as spending the previous night sleeping in a location not intended for occupation (e.g., a shop doorway). For continuous data the mean total score + (*SD*) is shown, with ANOVA *F* values if normally distributed and Mann–Whitney *z* scores if not (normality of distributions was assessed with Kolmogorov–Smirnov one-sample tests). Binary data were compared with the continuity correction of the χ^2 statistic, unless any expected frequencies were less than 5, in which case Fisher's Exact Test was employed.

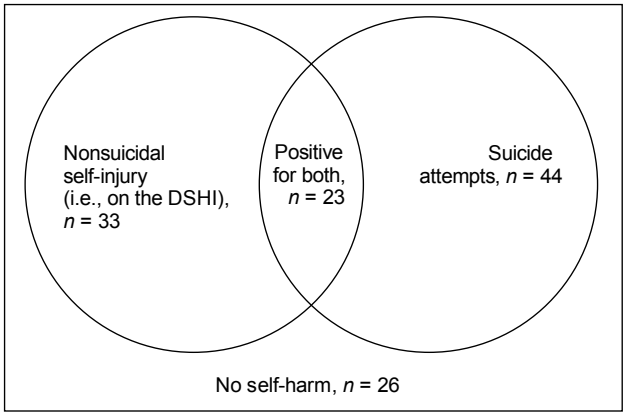

Figure 1. The proportions of the total sample of 80 homeless individuals who had histories of nonsuicidal self-injury, suicide attempts, or both.

likely to report a past psychiatric hospital admission, and had commenced use of more classes of drugs since becoming homeless. When homeless-specific information was compared, it was found that the only variable that differed significantly between groups was the age at which subjects first became homeless. The self-harm subjects were significantly younger when they first became homeless, compared to the no self-harm group.

The median time spent homeless was 3 years. This was used to split the sample into two groups that were then compared on the variables shown in Table 1. Longer courses of homelessness were significantly associated with younger age when first homeless ($F = 9.25$, $p < .05$), a longer percentage of lifetime homelessness ($z = -7.4$, $p < .001$), and more drugs started since becoming homeless ($z = -.98$, $p < .05$), but a reduced likelihood of current alcohol abuse ($\chi^2 = 3.92$, $p < .05$). There were no significant differences for the other variables, or for the occurrence of self-harm.

Discussion

We found a high level of past self-harm in our group of 80 homeless adults. Over two thirds (68%) reported past acts that would be considered self-harm (i.e., either suicide attempts or nonsuicidal self-injury). A recent study of schizophrenia patients using the same definition of self-harm also reported a lifetime prevalence of 68% (Pluck et al., 2012). Thus, homeless individuals appear to be at a similar risk to individuals with severe mental illness. They are certainly above the rates reported in the general population. For example, one large epidemiological study in the US of people aged 15–54 years reported a total lifetime prevalence of 4.6% for "suicide attempts" or "gestures" (Nock & Kessler, 2006). A study of self-harm by adolescents, using essentially the same definition as in this report, found an overall lifetime prevalence rate in seven European countries of 4.3%, and in England of 4.8% (Madge et al., 2008). Therefore, our finding of 68% appears to be considerably higher than that in the general population.

Of the variables studied, those found to be significantly related to self-harm were indicative of long-term mental health problems. Individuals with self-harm, compared to those without self-harm, were over 5 years younger when they first became homeless. They were also significantly more likely to have a past psychiatric hospital admission, directly pointing to relatively severe past mental health concerns. Furthermore, thoughts of self-harm in the past year were significantly linked to past self-harm, indicating the persistence of mental health concerns in both groups. Homeless individuals with self-harm histories tended to start using more drugs after becoming homeless. This final factor implies an element of self-medication. However, homelessness involves reduced access to social support and health care and closer access to illicit markets, and these may also be factors.

The features identified here as being linked to lifetime self-harm by homeless adults are broadly consistent with those observed in the general population. For example, self-harm in non-homeless populations is associated with socioeconomic disadvantage, psychiatric care, and substance abuse (Skegg, 2005), which would all be consistent with our observations. However, self-harm in non-homeless samples is more common in females (Skegg, 2005); an asymmetry not observed in our homeless sample. In addition, the current research highlights issues specific to homelessness, i.e., the development of substance abuse after the start of homelessness and lower age when first homeless.

We report on a relatively small sample, and conclusions should therefore be tentative. Those who provide medical and social care to homeless adults will already be aware that enduring mental health problems are linked to self-harm. Nevertheless, the results suggest that self-harm is very common in this group and thoughts of self-harm are a simple predictor of this, and something that can be monitored. Furthermore, an increase in substance abuse when homeless is indicative of risk and thus initiation could be highlighted in risk assessments. Finally, child and adolescent homelessness indicates a longer course of adult homelessness and an increased risk of lifetime self-harm; long-term care planning for this vulnerable group should anticipate this factor.

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