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Health, perceived quality of life and health services use among homeless illicit drug users

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ABSTRACT

Introduction: Drug misuse has been identified as a significant problem in homeless populations. This study examines aspects of physical and mental health, perceived quality of life and health service use among homeless illicit drug users and compares these to non-drug users.
Methods: Participants were recruited through health clinics across Dublin. A questionnaire assessed participants' drug use, health and well-being, health behaviours and use of health services. Descriptive statistics are presented for the entire cohort and drug users separately. Logistic regression analysis was used to examine the relationship between drug use and (i) multimorbidity, (ii) anxiety and/or depression, (iii) perceived quality of life and (iv) use of health services.
Results: Of 105 participants recruited, 35 (33%) were current drug users. Current and previous drug users were significantly more likely to have multimorbidity than those who had never taken drugs (OR 4.86, 95% CI 1.00–23.66). There was no significant difference between drug users and non-drug users in the prevalence of anxiety and/or depression. Drug users were five times more likely than non-drug users to have a low perceived quality of life (OR 5.2, 95% CI 1.7–16.0). Health service utilization was high, although some services were used less by drug users (e.g., dentist and psychiatric outpatient services) while others were used more often (e.g., phoneline services and day care centres).
Conclusion: This study highlights the high levels of drug use in this population and the negative impact of drug use on health and perceived quality of life of a homeless population in Dublin.

1. Introduction

Homelessness is a significant and growing problem in many developed countries (Edgar et al., 2003). The true extent of the problem is unclear as no universal consensus has been reached on the definition of homelessness (Amore et al., 2011). The European Union defines homelessness as individuals who are rough sleepers, residents of emergency accommodation, and those living in insecure and inadequate housing (Amore et al., 2011). Based on that interpretation, there were 3808 persons homeless in Ireland in 2011 (Central Statistics Office, 2012). Homelessness is a growing concern as it has been shown that the prevalence is increasing in Ireland (Citizens Information Board, 2014; Edgar et al., 2003).

It is known that homelessness is associated with higher rates of mortality, morbidity, poor mental health, alcohol and drug use and other risky health behaviours relative to the general population (Central Statistics Office, 2012; Fazel et al., 2008; Hwang, 2001; Martens, 2001; O'Carroll and O'Reilly, 2008). Despite the volume of healthcare needs, homeless populations face a number of barriers to receipt of appropriate services (Canavan et al., 2012; Kushel et al., 2001).

Drug misuse in the homeless population has been identified as a significant risky behaviour and has been reported to be a cause, contributor and consequence of homelessness (Citizens Information Board, 2014; Lawless and Corr, 2005). Drug use is known to be more prevalent in the homeless population (O'Carroll and O'Reilly, 2008; Substance Abuse and Mental Health Services Administration, 2013), and studies have shown that it may be an increasing problem in this population (O'Carroll and O'Reilly, 2008). In surveys examining the prevalence of drug users among homeless population in Dublin, it was found between 29% and 64% were lifetime

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drug users and 26% to 41% were current users (Lawless and Corr, 2005). In the general population of Ireland approximately 1 in 5 (19%) have reported ever taking illicit drugs (National Advisory Committee on Drugs (NACD) and Drug and Alcohol Information and Research Unit (DAIRU), 2006 http://www.nacd.ie/images/stories/docs/publicationa/TechnicalReport_2002-3.pdf). Apart from alcohol, studies have reported cannabis, heroin, benzodiazepines, methadone, and head shop substances as the most frequent drug types used (Central Statistics Office, 2012).

A number of studies have examined the relationships between homelessness and the quality of life, mental health, and health service use of homeless people (Holohan, 2000; Keogh et al., 2015; O'Carroll and O'Reilly, 2008). Others have documented the negative effect of drug use on the quality of life (Costenbader et al., 2007; Fischer et al., 2005; Laudet et al., 2009; Millson et al., 2006; Ryan and White, 1996; Stein et al., 1998), physical health (most notably an increase in infectious diseases; Ezzati et al., 2002; Fischer et al., 2005; Ryan and White, 1996) and mental health (Beaulieu et al., 2012; Fischer et al., 2005; Ryan and White, 1996). However, it is not clear from the current literature how drug use affects the relationship between homelessness and these outcomes.

The aim of this study was to investigate whether drug use is associated with poorer physical health, higher levels of anxiety and/or depression, lower perceived quality of life in a homeless sample. A secondary aim of the study was to examine the levels of health service use, in particular Accident and Emergency (A&E) attendance, among homeless drug users when compared to other homeless groups.

2. Methods

2.1. Study design

The STROBE standardised reporting guidelines for cross-sectional studies were followed to conduct and report this study (von Elm et al., 2007). Ethical approval for this study was granted by the Royal College of Surgeons Research Ethics Committee.

2.2. Participants and setting

In Ireland, the majority of people pay to visit a GP and for their medication; around a third of the population is entitled to a means tested free healthcare scheme (GMS scheme). It is known from previous studies on the health of homeless people in Dublin that only around 55% of the homeless population has joined the scheme (Holohan, 2000; O'Carroll and O'Reilly, 2008). Safetynet was established in 2007 and provides homeless people, and those at risk of homelessness, with free access to primary care workers including GPs, nurses and drug workers regardless of GMS status. The clinics are all based in homeless shelters and foodhalls to allow easy access. It is supported by the Health Service Executive (HSE) and consists of 14 clinics across Ireland, although these are predominately based in Dublin.

Two medical student researchers recruited participants from four of the Safetynet health clinics across Dublin city centre. Recruitment took place during an eight week period in summer 2011, using a convenience sampling method. Recruitment continued until saturation. Each of the participating centers requested a gate-keeping mechanism, whereby patients were first informed of the study by a member of Safetynet staff and interested participants were then introduced to the researchers, who were on site. Participants provided informed consent prior to participation. Each item on the consent form was read aloud to the participant by the researcher to overcome issues around literacy. No compensation or incentive was offered to the participants.

2.3. Survey instrument

The questionnaire consisted of 133 items that assessed patients' reasons for homelessness, health and well-being, risky health behaviours and use of health services. Participants were asked to report if they 'currently' or 'ever' experienced a list of mental and physical health problems. In addition, the study included a number of standard questionnaires used to assess patients' health. These included the AUDIT C (Alcohol Use Disorders Identification Test) to measure problem drinking, the GAD-7 (Generalised Anxiety Disorder Assessment) for anxiety and the PHQ-9 (Patient Health Questionnaire) to measure depression. The AUDIT C is scored on a scale of 0–12 with 0 representing no alcohol use, while a score of $\geq$4 in men or $\geq$3 in women indicates alcohol misuse (Bradley et al., 2007). For the PHQ-9, a score of $\geq$10 from a possible score of 27 indicates the possibility of clinically significant depression, while $\geq$15 indicates severe depression. The PHQ-9 has been shown to be an appropriate questionnaire for use in this population, on account of its reliability and brevity (Delgadillo et al., 2011; Larson, 2002). For the GAD-7, a score $\geq$10 from a possible score of 21 indicates the possibility of clinical anxiety, while a score of $\geq$15 suggests severe anxiety. Participants were also asked to self-rate their mental health on a scale from excellent to poor (5 point scale). Perceived quality of life was assessed using a single question, which was designed to be an overall indicator of subjective well-being. Participants were asked to rate their overall quality of life on a scale from excellent to poor (Score 1–5). The scale was based on a similar five point scale used in an Irish national survey (SLAN; Ward et al., 2009) and by the World Health organization survey 1998 (World Health Organization, 1998). A section of the questionnaire was dedicated to risky health behaviours, in this section participants were asked to state if they were current (within the last 90 days), previous or never illicit drug users. The questionnaire was interview-administered and took approximately 45 min to complete.

2.4. Statistical analysis

This study provides a descriptive analysis of the health and healthcare use of the homeless population, with a focus on those who have reported current drug use. Descriptive statistics are presented for the entire cohort and for current drug users separately. Comparisons were made between current drug users and non drug users for categorical data using Fishers Exact test and the p value reported.

Logistic regression models were used to determine if drug use was associated with (1) multimorbidity (defined as persons with 2 or more chronic physical health problems; Fortin et al., 2007; van den Akker et al., 1998), (2) higher levels of anxiety and/or depression (score greater than 10 on either the PHQ9 or the GAD7 was considered positive), (3) lower levels of perceived quality of life and (4) increased use of A&E services in previous six months. Variables included in all models unless otherwise specified: Age (<40 years vs. >40 years), gender (male vs. female,) nationality (Irish vs. non Irish), alcohol misuse (yes vs. no based on AUDIT C), smoking (yes vs. no), multimorbidity (yes vs. no) and illicit drug use (never, current (within last 90 days), previous).

For model 1, the cohort was dichotomized based on the presence or absence of two or more chronic self reported diseases. Smoking status was not included in this model as there were no participants that had multimorbidity that were non-smokers. For model 2, depression was dichotomized into yes or no using a cut point of 10 on the PHQ9 and anxiety was defined by a cut point of 10