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Factors Associated to Health Needs from Homeless Perspective in Spain

David Martín-Baena[1], Isabel Montero-Piñar[2] & María Isabel Fuertes-Lanzuela[3]

[1] CIBER Epidemiología y Salud Pública (CIBERESP), Spain

[2] Faculty of Medicine, Department of Psychiatry, University of Valencia, Valencia, Spain

[3] Nursing School "La Fe", Valencia, Pabellon Docente.Torre H, Bulevar Sur S/N, 46026, Spain

Correspondence: Dr. David Martín-Baena, Technical researcher, Ciber de Epidemiología y Salud Pública (CIBERESP), FISABIO. Area Health Inequalities, Avda. Catalunya, 21 46020 Valencia, Spain. Tel: 34-96-192 59 32. E-mail: martin_dav@gva.es

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Abstract

Purpose: This pilot study aims to identify factors associated to roofless own health self-perception.

Design: Cross-sectional study with a sample of homeless people (n=68) who come for help to one of the homeless service centers founded by a non-profit organization. Socio-demographic characteristics, years living on streets, unhealthy habits, chronic morbidity, basic needs and self-reported physical and mental health were described. To identify factors related to mental and physical health from roofless own perspective, a binary logistic analysis was held.

Findings: The majority of participants were under 40 years, male and Spanish, alcohol or drug consumers, 80% have lived in the street for one to five years with high levels of pain and poor mental health conditions. Living on the street over a year, exposure to violence, lack of hygiene and female gender, affect negatively the own perception of physical and mental health conditions.

Conclusions: Our results show the different and complex homeless health needs. Given the duration of homelessness affected their health condition, recent roofless homeless should be identified as soon as possible.

Clinical relevance and further research: Those providing care for homeless people must promote a more coordinated care, maximizing flexibility and fostering relationships to better response to the multiple and different needs of this one vulnerable population. Further study is needed to allow identify the different experiences of homeless women and men.

Keywords: homeless, basic needs, physical health, mental health

1. Introduction

1.1 Homelessness in Europe

Homelessness is a multidimensional condition which affects many people in contemporary society, with health, economic, social and policies implications. The term homeless covers many types of insecure housing status including rough sleepers, newly arrived immigrants, people living in insecure, inadequate and overcrowded accommodation or living in emergency and temporary accommodation (Gelberg, Andersen, & Leake, 2000). The lack of national level data in many European countries, together with the different definitions and approaches to data collection and measurement, makes unable to arrive to a unique estimation of the homelessness in Europe (Edgar, Doherty, & Meert, 2003). The fourth review of statistics on homelessness in Europe proposes a typology of homelessness and housing exclusion, to improve research and policy decision-making on homelessness differentiating two categories of homelessness: "roofless" (sleeping rough or in emergency accommodation) and "houseless" (sleeping in hostels or other temporary accommodation) (Edgar & Meert, 2005).

The number of people experiencing homelessness over the last few years increases in all European countries, with the exception of Finland and the Netherlands (ENHW, 2013). More than 4 million people have had a homeless episode in the last year and more than 400,000 individuals are homeless on any one night in western

countries (Fazel, Geddes, & Kushel, 2014). Structural factors, as income inequality, promote homelessness, although migration within the EU and from outside countries, ageing of the population, changes in family structure, unemployment and unavailability of subsidized housing contribute to homelessness. The Spanish Statistic Institute estimated around 23.000 homeless people on a single night, representing the 0.05% of the Spanish population (National Institute of Statistics, 2012). Taken into account that the sample comprises only homeless from community free food services and sleeping shelters, in municipalities with more than 20,000 inhabitants, this estimation could at least rise up to 40,000 according to the last Spanish homeless report (Rais Foundation, 2015).

1.2 Homelessness and Health

Homelessness is a social problem with enormous public health significance. Literature consistently found that homeless people have a higher rate of serious morbidity compared to general population, regardless if they are chronically or not chronically unsheltered (Levitt, Culhane, DeGenova, O'Quinn, & Bainbridge, 2009). Drug and alcohol dependence, mental health conditions and dual diagnosis are reported as the most common health needs among homeless (Martens, 2001; Wiersma et al., 2010). Stigma, prejudice and the inadequacy and complexity of services that they have to use, as opening hours -transportation and difficulties engaging with professionals (Mills, Burton, & Matheson, 2015), represent barriers that prevent them from using health services, particularly primary care and mental health services (Chrystal et al., 2015).

Different models and services to address homeless health needs have been developed in many European countries (Kaoutar et al., 2014; Keogh, O'Brien, Hoban, O'Carroll, & Fahey, 2015; Lester, Wright, Heath, & RGCP Health Inequalities Standing Group, 2002), however staff with a professional qualification tends to be in a minority of organizations in a number of countries (Bhui, Shanahan, & Harding, 2006). Despite the growing interest in homeless health's needs, knowledge of how homeless people perceive their own health's needs is poorly understood (Baggett, O'Connell, Singer, & Rigotti, 2010).

2. Research Aim

This study aims to reduce this gap, through the analysis of their own health's needs. It is based on the explanations given by them, describing with their own voice their profile, basic needs, unhealthy habits, chronic mobility and self-related physical and mental health conditions.

3. Methods

3.1 Design and Sample

This cross-sectional pilot study uses a sample of homeless seeking for help from one of the homeless serving centres, founded by the non-profit Doctors of the World in Valencia City (Spain). The centre was staffed by voluntary nurses, social workers, psychologist and physicians with the collaboration of nonprofessional volunteers and offers day care for a maximum of six months. Team members provide rudimentary medical care and also focus on social work, helping homeless access to social security benefits, health insurance, residence cards and emergency shelters or permanent housing. Data were collected from those attending between February and April 2015, the period with the highest demand for shelter and food assistance registered in this Spanish region (National Institute of Statistics, 2013). After excluding those who did not understand the Spanish language, the number of homeless invited to participate were 68 and a 10.2% (5 men and 2 women) refused, so the final sample brings 61 homeless: 91.8% men and 8.2% women.

3.2 Measurements

Information was gathered using a structured interview based on literature and staff experience (Uribe & Alonso, 2009). The interview covered different areas: a) socio-demographic characteristics; b) housing and family contact; c) unhealthy behaviors d) use of substances; e) chronic morbidity; f) self-perceived health status; physical and mental health conditions, and g) basic needs, based on Virginia Henderson's Needs Model (Henderson, 1997), adapted and reduced to suit basic homeless needs: rest, food, safety and hygiene. To assess homeless overall health state we used the short SF-12 version from the original SF-36 questionnaire, validated for different populations and recommended for homeless research (Larson, 2002). This tool includes measurements of physical health (subscale of physical components (PCS) and mental health state (mental components subscale (MCS). The Spanish version of the SF-12 has adequate psychometric properties and improved both the metric properties and interpretation of the original SF-36 questionnaire (Ware, Kosinski, & Keller, 1996) with a reliability of α=.56 for physical health and α=.53 for mental health Cronbach's α coefficient and a validity of 0.94, representing an explained variance of 88.36 % (Vera-Villarroel, Silva, Celis-Atenas, &

Pavez, 2014). According to literature, reliabilities of 0.6 or 0.5 are suitable for early stages of research (Peduzzi, Concato, Kemper, Holford, & Feinstein, 1996).

Interviews were conducted in the office after snack, shower and dinner times, combining with scheduled consultations and different activities held in the center. The purpose and interest of the study was explained and confidentiality and anonymity were guaranteed, informing that they could stop the interview at any time without any consequences on the attention or the care provided. After required verbal informed consent, the information was collected by a mental health nurse practitioner, who was independent of the research team.

3.3 Analytic Strategy

The sample size calculation offers a medium effect (i.e., R^2=0.15) with alpha of .05 and 99% of power, figures than were considered satisfactory to ensure the statistical analysis (Cohen, 1977). Frequencies and standard Chi-squared test ($p < 0.05$) for categorical variables and mean and t- Student for continuous were used for the descriptive analysis. To identify factors associated to health outcomes, binary logistic regression analysis was performed. Odds Ratio and its Confidence Interval (OR (95 % CI)) were calculated. Analyses were performed with the Statistical Program for the Social Sciences (SPSS) version 20.0.

4. Results

4.1 Socio-demographic Characteristics

Table 1. Social and demographics profile of the roofless sample (*n*=61)

Variables	*n*	%
Age (in years)		
19-29	12	19.7
30-39	21	34.4
40-49	18	29.5
50-59	8	13.1
> 60	2	3.3
Gender		
Men	56	91.8
Women	5	8.2
Region of Origin		
Spain	31	50.8
Eastern Europe	14	22.9
Africa	13	21.3
South America	3	4.9
Education–		
Elementary School	28	45.9
Medium/High School	33	54.1
Source of income *		
Irregular activity	37	60.7
State aid	9	14.8
Begging	5	8.2
Living on street		
< 1 year	22	36.1
1-5 years	28	45.9
> 5 years	11	18.0
Sleeping		
In streets or parks	19	31.1
In subway platforms	12	19.7
In “building halls”	30	49.2
Without health coverage	16	26.2
Social Contact		
With family	49	80.3
With partner	16	26.2

*Missing values

Table 1 shows the socio-demographic sample profile. Most homeless are Spanish, followed by people from Eastern Europe and North Africa, men, aged less than 40 years and 54.1% have completed medium or high school. Of the 61 homeless surveyed, 45.9% have lived in the streets from one to five years, and the 31.1% sleep outdoors (on streets or parks) and the rest in emergency accommodation (subway platforms or buildings halls). For most of them, income comes from irregular activities and in 8.2% from begging and only 14.8% from social benefits. The 26.2% don't have health coverage and most maintain contact with their families and the 26.2% with a stable partner.

4.2 Unhealthy Behaviors and Chronic Morbidity

Table 2. Unhealthy habits and chronic morbidity (*n*=61)

Variables	*n*	%
Unhealthy habits		
Substance consume (last months)		
Tobacco	54	88.5
Alcohol	44	72.1
Illicit drugs	47	77.0
Cannabis	23	37.7
Cocaine	13	21.3
Heroin	4	6.6
Benzodiazepines (not prescribed)	7	11.5
Risk behaviors		
Unprotected sex	30	49.2
Share syringes	0	0.0
Chronic morbidity		
HIV/AIDS	3	4.9
Hepatitis	12	19.7
TB	2	3.3
Chronic asthma/bronchitis	6	9.8
Diabetes	3	4.9
Pain*	55	90.2
Back	36	59.0
Feet	26	42.6
Mouth	29	47.5
Stomach	17	29.5
Mental health conditions	23	37.7

* Not mutually exclusive

The vast majority are current smokers, 77% drug users and 72.1% alcohol drinkers. Cannabis is the drug most commonly consumed (37.7%), followed by cocaine (21.3%) and not prescribed benzodiazepines (11.5%). Heroine was consumed less than other drugs (6.6%) and no one injecting drugs ever reused or exchanged syringes. Of the participants who had sex, either with a steady or a causal partner, the 49.2% did not use any kind of protection on every occasion. The most common physical health problem was pain (90.2%), especially back pain (59.0%) and mouth/gums and teeth (47.5%). Hepatitis (19.7%), asthma and chronic bronchitis is also common (9.8%), while HIV/AIDS and tuberculosis is less frequent in our sample, 4.9% and 3.3% respectively (Table 2).

4.3 Basic Needs and Self- Perceived Health

Need for sleep and rests was reported by the 75.4% and unsafety was stated by the 80%. Of them, the 23% have been victims of street fights, 27.9% of assaults and 34% of thefts. Most of them eat once (39.3%) or even twice a day (42.6%), whereas 11 (18.1%) do not eat every day. Food intake consists mainly of bread, bakery products and cold meals, where vegetables, meat, fish, eggs and dairy products were markedly absent. Lack of hygiene was also reported as one of the basic unmet needs by the 34.4% of the roofless surveyed. Although 42.6% of the homeless perceived their overall health state as good, 59.0% perceived poor physical health and 50.8% poor mental health conditions (Table 3).

Table 3. Health and basic needs from homeless perspective (*n*=61)

Variables	*n*	%
Self-perceived Health		
Overall health status		
Good	26	42.6
Poor	35	57.4
Physical health		
Good	25	41.0
Poor	36	59.0
Mental health		
Good	30	49.2
Poor	31	50.8
Unmet basic needs		
Sleep and Rest	46	74.7
Safety	52	85.0
Fights	14	23.0
Assaults	17	27.9
Thefts	21	34.4
Food intake		
Mails per day		
None	11	18.1
One	24	39.3
Two	26	42.6
Diet		
Bread, bakery products and cold meals	54	88.5
Vegetables, meat, fish, eggs and dairy products	7	11.4
Hygiene	21	34.4

Total differ by missing values

4.4 Factors Associated to Physical and Mental Health

Table 4 shows the results of the binary logistic analysis. Roofless women are more likely to report poor overall health state than roofless men (OR=1.80). Those who live in the streets (from one to five years) are more likely to perceive poor health (OR=3.45) compared to those who live in the streets less than a year. Unsafe homeless people are near to four times more likely to perceived poor mental health than homeless who don't report unsafety (3.91%). Hygiene also appears strongly associated with poor physical health (OR=4.52).

Table 4. Factors associated with physical and mental health: Logistic Regression Models

	Poor overall health		**Poor physical health**		**Poor mental health**	
Variables	n(%)	OR (95% CI)	n(%)	OR (95% CI)	n(%)	OR (95% CI)
Gender						
Men	28 (53.8)	1	34 (60.7)	1	30 (53.6)	1
Women	5 (100)	1.80* (1.44-2.38)	2 (40.0)	2.31 (0.35-15.0)	1 (20.0)	2.58 (0.27-24.7)
Years living in streets						
<1 year	8 (38.1)	1	14 (63.6)	1	10 (45.5)	1
1-5 years	17 (68.0)	3.45* (1.02-11.6)	14 (50.0)	0.57 (0.18-1.79)	14 (50.0)	0.97 (0.30-3.11)
>5 years	8 (72.7)	4.33 (0.88-21.3)	8 (72.7)	1.52 (0.31-7.44)	7 (63.6)	1.45 (0.33-6.34)
Sleep and Rest	24 (55.8)	1.31 (0.45-3.80)	26 (56.5)	0.96 (0.34-2.69)	23 (50.0)	1.01 (0.36-2.87)
Safety	16 (48.5)	1.11 (0.38-3.19)	21 (58.3)	2.48 (0.87-7.12)	16 (69.6)	3.91*(1.29-11.8)
Hygiene	13 (68.4)	1.95 (0.61-6.90)	13 (61.9)	4.52* (1.20-16.87)	13 (61.9)	1.39 (0.47-4.10)
Food intake	14 (46.7)	0.36 (0.12-1.10)	18 (54.5)	0.66 (0.23-1.87)	15 (45.5)	0.50 (0.17-1.43)

* $p<0.05$

5. Discussion

Sample profile corresponds to Spanish men, alcohol and drug consumers, living in the streets for years and sleeping rough or in emergency accommodations. As in most European countries the age group of 30 to 49 years is the largest group of homeless (Busch-Geertsema, Benjaminsen, Hrast, & Pleace, 2014), comprising 63.9% in our sample, where the 19.7% are younger than 30 and only 3% aged 60 or over. This profile confirms that current homeless differ from the old homeless described by Rossi (1990): they are younger, poorer and with less access to sleeping shelters or cheap hostels that old homeless. The current recession in Europe generated increased poverty and inequalities and the lack of funds to help the most vulnerable population has led many municipalities to restrict access to housing and support for homeless people, where 34% of the homeless in Spain sleep outside the care network (FEANTSA, 2006).

Research consistently shows that over a third of individuals who are homeless experience alcohol and drug problems, although results varied by studies. A previous study conducted in Ireland found that a third of homeless had been diagnosed with an addiction, predominantly related to drugs (72%), with smaller numbers diagnosed with an addiction to alcohol (28%) (Keogh et al., 2015). Instead, we found a much higher percentage of alcohol drinkers (71.2%), similar to that found in a Spanish previous study, where the 74.7% were current drinkers (Uribe & Alonso, 2009). The fact that alcohol is easily accessible and fairly cheap can influence increased consumption of alcohol by homeless in Spain. Changing prices and its availability and offering a cost-effective approach could improve treatment abstinence among addicted alcohol homeless, since the incremental cost of these programs is within a reasonable range compared to other common societal interventions (Schumacher, Mennemeyer, Milby, Wallace, & Nolan, 2002).

Cannabis is the most popular drug used, high above cocaine and heroin. Among those ever injecting drugs, none reused or exchanged syringes in the last month, contrary to that found in a previous study where of the 44% of homeless ever injecting drugs, 56% reused their own needle and the 39% used it from somebody else (Keogh et al., 2015). In Spain, as well as in other European countries, a legal framework that allows the distribution of sterile needles and syringes to drug users to minimize health risks, particularly for hepatitis C and HIV/AIDS was adopted. The prevalence of tobacco smoking among homeless people can reach more than 90% (Garner & Ratschen, 2013). Spain is the ninth country in the EU with the highest percentage of smokers. Despite the reduction of four points between 2012 and 2014 in Spain, the number of smokers in homeless individuals has not decreased, where the 88.5% of roofless in our sample are current smokers.

Most Spanish organizations working with homeless population come to the conclusion that health self-perception is not a good method to obtain information for this specific population. This statement is based on the Spanish Homeless Report (ENHW, 2013), where 30.7% of homeless surveyed had a serious or chronic illness, but only 14.2% perceived their health as poor, which leads them to assert that it is not a reliable tool to detect homeless health´s needs. By contrast, we found that of the 67% of homeless with chronic health problems, 57.9% considered their overall health state as poor. These discrepant results may be influenced by the information provided by staff helping homeless to better recognize their own health condition than from samples selected in different points as community dining rooms or shelters. Nevertheless, the high chronic morbidity found confirms that roofless have a higher rate of serious morbidity compared to other underserved population.

Prevalence of mental disorders in homeless western countries is higher than among general population, but rates vary from 80-95% in USA, Australia, Canada, Norway, and Germany to 25-33% in Ireland and Spain (Fazel, Khosla, Doll, & Geddes, 2008). Despite having to be cautious given the different tools used to assess outcome measurements, our results support the higher rates of self-related mental health among roofless (50.8%) compared to the 25% found in adult Spanish general population (Haro et al., 2006). It is an ongoing need to focus on mental health issues that disproportionately affect homeless people. A systematic review study evaluating the effectiveness of interventions to improve the mental health of the homeless concludes that coordinated programs and case management improve the mental health of homeless rather than the usual attention (Hwang, Tolomiczenko, Kouyoumdjian, & Garner, 2005).

Results show that living in the streets over a year has serious detrimental effects on homeless health, therefore it is a priority to identify recent and young roofless as soon as possible. Although the results should be interpreted with caution, due to the wide confidence intervals, the high frequency of incidents of violence and the strong association with serious physical and mental health conditions, requires more attention, as roofless are less safe than other disadvantaged collectives. Food intake is usually poor and unbalanced among homeless. It is characterized by high saturated fats, with deficiencies in proteins and micronutrients, which can have negative

effects on physical and mental health (Seale, Fallaize, & Lovegrove, 2016). Despite the lack of statistical significance between homeless nutrition and self-perceived health, the provision of adequate nutritional quality food remains a public health priority. The high number of roofless with mouth/gum/tooth pain requires providing free oral health services. Given that we found that living in the streets for a year has serious detrimental health effects, it is urgent to focus on young people starting homelessness, as they are exposed to more risks.

Health and health care disparities for the homeless are particularly distressing for homeless women (Teruya et al., 2010). Compared with general population, homeless women's health disparities include higher rates of mortality, more chronic morbidity, poor mental illness, substance abuse, victimization and poor birth outcomes (Crawford, Trotter, Hartshorn, & Whitbeck, 2011). Since research has not been undertaken only with homeless women, their perception for health's needs is unknown. Despite the low number of roofless women in our sample, all of them perceived their overall health as poor, in contrast to the 53.8% of roofless men. As health is different for men and women, both in quality and quantity (Montero et al., 2004), with different profile and needs for homeless women than for homeless men (North & Smith, 1993), the Committee on health care for underserved women calls for homeless intervention health programs including the gender perspective in order to provide more effective care for homeless women (Committee on health care for underserved women, 2013).

Interventions to improve homeless health has received significant attention over the past five years (Fitzpatrick-Lewis et al., 2011), but trials assessing the effectiveness of health interventions tailor to different types and needs of roofless people, remain scarce. Homeless are more likely to receive health care in countries with universal access to the health system than those who do not. Although Spain has universally and free access to the health system, during the financial crisis it has been denied for people without health coverage, except for emergency rooms, setting that contributes substantially to high health care costs and represents an inefficient use of health care resources (Milbrett & Halm, 2009). The inclusion of homeless in the health system with accessibility and availability to primary health care and ensuring that they receive help with the complex admission procedures that they often face, is a pre-requisite for effective health interventions.

5.1 Limitations

The main limitation of this study was the sample size. The exclusion of homeless that did not understand the language has excluded an undetermined number of immigrants homeless, so outcomes could be underestimated. The cross-sectional nature of data implies that the causal direction of the effect of variables analyzed and health outcomes is not conclusive; although results seem to support that homelessness is the cause and not the effect. Given that we focus of homeless sleeping outside the care network and most living in streets for years, the generalization to other homeless profiles is very limited. Unfortunately the small number of roofless women does not allow a more detailed analysis, and should be considered in further studies.

5.2 Conclusions

Despite these limitations, this study provides new information on health's needs of homeless who have been living in the streets for years, where face-to-face interviews are usually hard to fill. Understanding the experiences of roofless people and meeting the needs of the homeless needs can help organizations that provide services to homeless people, to take better clinical decisions to respond to the multiple and different health needs of these vulnerable people. Future studies should address the diversity of homeless population with particular focus on women and recent roofless as they are at greatest risk of suffering from poor health.

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