European public perceptions of homelessness: A knowledge, attitudes and practices survey

Junie Petit1, Sandrine Loubiere1,2*, Aurlie Tinland1,2, Maria Vargas-Moniz3, Freek Spinnewijn4, Rachel Manning5,6, Massimo Santinello6, Judith Wolf7, Anna Bokszczanin8, Roberto Bernad9, Hakan Kallmen10, Jose Ornelas3, Pascal Auquier1,2, HOME-EU consortium study group¶

1 Aix-Marseille University, School of Medicine—La Timone Medical Campus, CEReSS—Health Service Research and Quality of Life Center, Boulevard Jean Moulin, Marseille, France, 2 Department of Research and Innovation, Support Unit for Clinical Research and Economic Evaluation, Assistance Publique—Hôpitaux de Marseille, Boulevard Jean Moulin, Marseille, France, 3 APPsCyI (Applied Psychology Research Center: Capabilities and Inclusion), ISPA-Instituto Universitário, Rua Jardim do Tabaco, Lisbon, Portugal, 4 FEANTSA, European Federation of National Organisations Working with the Homeless, Chaussée de Louvain, Brussels, Belgium, 5 Department of Psychology, University of Limerick, Limerick, Ireland, 6 Department of Developmental and Social Psychology, University of Padova, Via Venezia, Padova, Italy, 7 Radboud University Medical Center, Radboud Institute for Health Sciences, Impuls—Netherlands Center for Social Care Research, Geert Grooteplein, EZ Nijmegen, The Netherlands, 8 Institute of Psychology, Opole University, Pt. Staszica, Opole, Poland, 9 Rais Fundación, C/ Ardemans, Madrid, Spain, 10 STAD, Stockholm Center for Psychiatry Research and Education, Karolinska Institutet, Norra Stati Onsgatan, Stockholm, Sweden

¶ Membership of the HOME-EU Consortium (Horizon 2020 GA/726997) can be found in the acknowledgments

* Sandrine.loubiere@univ-amu.fr

Abstract

Background

Addressing Citizen’s perspectives on homelessness is crucial for the design of effective and durable policy responses, and available research in Europe is not yet substantive. We aim to explore citizens’ opinions about homelessness and to explain the differences in attitudes within the general population of eight European countries: France, Ireland, Italy, the Netherlands, Poland, Portugal, Spain, and Sweden.

Methods

A nationally representative telephone survey of European citizens was conducted in 2017. Three domains were investigated: Knowledge, Attitudes, and Practices about homelessness. Based on a multiple correspondence analysis (MCA), a generalized linear model for clustered and weighted samples was used to probe the associations between groups with opposing attitudes.

Results

Response rates ranged from 30.4% to 33.5% (N = 5,295). Most respondents (57%) had poor knowledge about homelessness. Respondents who thought the government spent too
much on homelessness, people who are homeless should be responsible for housing, people remain homeless by choice, or homelessness keeps capabilities/empowerment intact (regarding meals, family contact, and access to work) clustered together (negative attitudes, 30%). Respondents who were willing to pay taxes, welcomed a shelter, or acknowledged people who are homeless may lack some capabilities (i.e., agreed on discrimination in hiring) made another cluster (positive attitudes, 58%). Respondents living in semi-urban or urban areas (ORs 1.33 and 1.34) and those engaged in practices to support people who are homeless (ORs > 1.4; p < 0.005) were more likely to report positive attitudes, whereas those from France and Poland (p < 0.001) were less likely to report positive attitudes.

### Conclusion

The majority of European citizens hold positive attitudes towards people who are homeless, however there remain significant differences between and within countries. Although it is clear that there is strong support for increased government action and more effective solutions for Europe’s growing homelessness crisis, there also remain public opinion barriers rooted in enduring negative perceptions.

### Introduction

Available data on homelessness across the currently twenty-eight states of the European Union suggests a steady rise over recent decades, with an increased number of women, youth, families and migrants experiencing homelessness.[1] There is a continuing lack of recent, European-wide quantitative data,[2] but expert estimates from 2009 suggested that, each year, about 4.1 million people in the European Union were unsheltered, or in emergency or temporary accommodation.[3]

Homelessness impacts on both the individual and society. Homeless individuals experience greater physical and mental health risks than the general population, resulting in shorter life-spans, and encounter more barriers to primary healthcare, which leads to higher utilization of more costly healthcare services such as emergency room visits.[4–6] The additional costs of social, healthcare, and housing services for homeless individuals are also high.[4,7–10] Despite this, many European countries have pursued policies aimed at reducing the visibility of homelessness in public spaces,[11,12] whilst cutting spending on services as part of broader austerity programmes.[13] However, changes in the sociopolitical environment, most notably the European migrant crisis, and the ongoing effects of the latest global financial crisis, have given a new urgency for innovative social policies to alleviate homelessness in Europe. In line with this, many European countries are moving towards models which prioritize housing-led approaches and programs combining medical and social support for long-term homeless people with chronic conditions.[14–18]

There is some evidence that public opinion influences policy formation,[19,20] therefore it is important to gain a better understanding of public attitudes towards homelessness in Europe to see whether or not public support could help to shape new homelessness policies. The few studies on public opinion about homelessness were conducted mainly in the United States of America (USA) and provided concurring results.[21–25] In particular, a nationwide survey conducted in 1990 in the USA showed that respondents favored increased government support for a variety of programs addressing homelessness; they also favored a personal tax
increase to reduce homelessness in their country. [22] In spite of this, the same survey stressed that people experiencing homelessness continued to be stigmatized as an undesirable marginal group thought to have become homeless due to personal failures and whose presence was believed to have negative effects on neighborhood quality. These results confirmed the findings of earlier surveys [21,24] and were corroborated by a recent assessment of the evolution of public opinion between 1990 and 2017 in the USA. [25] Only one opinion survey was conducted in Europe [26]. This study compared the opinions of respondents from four European countries to those of respondents from the USA. Differences were found, especially with regards to beliefs about whom should be responsible for funding programs addressing homelessness. However, this study had limitations: few countries were investigated, sample sizes were small, and the data collection was spread over 10 years producing different waves, all of which undermined confidence in the findings.

In light of the scarcity of data on the public’s attitudes about homelessness in Europe, key stakeholders would benefit from an updated evaluation of the citizen’s perceptions to better understand public support for programs addressing homelessness [19]. We therefore conducted a study with the objective of: 1) exploring the public’s knowledge, attitudes, and practices (KAP) about homelessness, 2) investigating differences in attitudes within the general population of eight European countries.

Method
Survey and participants
Ethics approval for this study has been received from the research ethics committee of Aix-Marseille University (reference number: 2016-01-02-01). A quota telephone survey using landlines and mobile phones was conducted from March 2017 to December 2017. At the beginning of each telephone call, the selected person was able indicate whether he or she wished to participate in the survey. The respondent could also refuse to answer the questions asked and end the interview whenever they wished. All interviews were conducted using Computer Assisted Telephone Interviews (CATI) software. A pilot study was conducted with a sample of 30 French individuals to assess the length of the questionnaire and its intelligibility (face validity). Then, the survey questionnaire was translated into the targeted native languages using the best standardized practice (see Supporting Information S1 File). [27] Participants were randomly selected from opt-in panels to be representative of respective national populations. The sample size for each country was 2,500 people, from which we expected a response rate of approximately 30% to reach our target of 700 surveyed individuals per country. Full details of the survey protocol are available. [28]

Adult citizens (18 years and older) of each of the eight European countries, namely France, Ireland, Italy, the Netherlands, Poland, Portugal, Spain, and Sweden were included. Respondents were informed of the purpose of the study, the intended use of the data, and assured of anonymity.

Measures
The survey questionnaire was designed to investigate the knowledge, attitudes, and practices (KAP) of the general population regarding homelessness. It was composed of two existing survey questionnaires [24,29] in addition to newly created items designed to answer our research objectives.

Attitudes were defined as the respondents’ beliefs or emotional reactions towards people experiencing homelessness, as well as their intention to act to reduce homelessness. [30] Eleven items addressing a respondent’s perception of the capabilities of people experiencing
Knowledge based questions addressed three areas: the number of people homeless, and who funded health care and social services for people who are homeless. Respondents' estimates of the number of people homeless were compared to the latest official estimates available in each country. Answers were classified as 'good' if they fell within 20% above or below official figures, 'partial' if within 40% and 'poor' if outside this range (2017 official estimates were as follows: France: 141,000 [34]; Ireland: 4,875 [35]; Italy: 50,724 [36]; the Netherlands: 30,500 [37]; Poland: 33,408 (Ministry of Family, Labour and Social Policy (MRPPS) cited in [38]); Portugal: 5,265 (Estimate provided by ISPA-Instituto Universitário, and see [39]); Sweden: 30,250 [40]; and Spain: 30,250 [41]). The funding sources of services addressing homelessness were assessed by asking respondents who funded most social or health care services for homeless people, with four response options including 'government', 'non-governmental organization/charities', 'Churches and religious communities', and 'don't know'. Answers were classified as 'good' if correct, and 'poor' if incorrect.

Three items were used to gather information about the self-reported practices regarding homelessness as follows: "Over the past year, have you given money, food, clothing to a homeless person?", "... to a charitable or non-profit organization for homeless people?", and "Over the past year, have you done any volunteer work in a charitable or non-profit organization for homeless people?"; three response options were available ('yes', 'no', and 'don't know').

Sociodemographic data were then collected.

**Statistical analysis**

The distribution of gender, age and education was assessed in each national sample to ensure representativeness. Since discrepancies were found between the distribution of those variables and the 2017 census data obtained through the World Bank [42] and Eurostat [43], weights were applied. Answers to the KAP survey are presented descriptively as the means or proportions, and compared using either analyses of variances for continuous variables or the Chi Squared test (or the Fisher exact test) for qualitative measures.

A multiple correspondence analysis (MCA) was performed on the attitudes items. MCA is an exploratory method used to summarize a complex data set comprised of qualitative variables into simplified dimensions. In MCA, the relations between the variable categories can be visualized through bi-plots. Only those variables contributing strongly to the first two dimensions were kept (based on the maximum percentages of inertia using Burt table analysis). Subsequently, a hierarchical clustering approach was used to create an attitude indicator.

Finally, a generalized linear model for clustered (on country) and weighted samples was used to probe the associations between groups with opposing attitudes and respondents' knowledge, reported practices, and country of citizenship, adjusted for sociodemographic characteristics. The analysis was conducted with the R Foundation for Statistical Computing, version 3.4.0 [45], using 'Survey' and 'FactoMineR' packages.

**Results**

**Sample description**

Response rates to the KAP survey ranged from 30.4% to 33.5%, for a total number of respondents of 5,631 which resulted in 5,295 valid questionnaires. The majority of respondents were
women (52% for the overall sample). Across all countries, at least 31% completed higher education, except in Poland and in Italy. Respondents were mainly employed either full-time or part-time, except in France, Italy and most notably in Spain (Table 1). Due to aforementioned discrepancies with census data, results from the weighted samples are presented next.

Table 1. Response rates and sociodemographic characteristics of the weighted study population.

| Characteristics          | COUNTRIES |          |          |          |          |          |          |          |
|--------------------------|-----------|----------|----------|----------|----------|----------|----------|----------|
|                          | All       | FR       | IR       | IT       | NL       | PL       | PT       | SE       | SP       |
| Eligibility* (over 2,500 each) | 17,633    | 2,263    | 2,261    | 2,220    | 2,154    | 2,206    | 2,311    | 2,101    | 2,117    |
| Complete interviews      | 5,631     | 700      | 701      | 713      | 701      | 708      | 703      | 703      | 702      |
| Response rate            | 31.9      | 30.9     | 31.0     | 32.1     | 32.5     | 32.1     | 30.4     | 33.5     | 33.2     |
| Characteristics          | Gender    |          |          |          |          |          |          |          |
|                          | Woman     | 51.69    | 51.60    | 51.18    | 51.15    | 47.26    | 54.61    | 54.73    | 49.03    | 54.09    |
| Age groups               | 18–24 years| 9.12     | 6.46     | 9.13     | 13.19    | 6.60     | 9.24     | 9.09     | 8.58     | 10.48    |
|                          | 25.34 years| 13.70    | 10.55    | 11.86    | 16.15    | 10.43    | 13.85    | 19.37    | 14.05    | 13.02    |
|                          | 35.44 years| 16.01    | 18.58    | 11.86    | 16.89    | 13.65    | 15.01    | 18.18    | 18.05    | 15.57    |
|                          | 45.54 years| 17.57    | 25.67    | 14.90    | 14.37    | 18.25    | 15.58    | 14.90    | 17.60    | 19.61    |
|                          | 55.64 years| 15.40    | 12.76    | 16.35    | 15.26    | 19.17    | 14.86    | 16.84    | 16.12    | 11.98    |
|                          | 65.74 years| 14.14    | 10.08    | 15.71    | 14.52    | 15.64    | 13.42    | 10.28    | 13.02    | 20.21    |
|                          | > = 75 years| 14.06    | 15.91    | 20.19    | 9.63     | 16.26    | 18.04    | 11.33    | 12.57    | 9.13     |
| Marital status           | Married/Civil a | 56.54 | 58.75 | 66.27 | 52.99 | 53.09 | 62.89 | 52.96 | 48.13 | 57.46 |
|                          | Widowed    | 8.79     | 13.16    | 8.14     | 10.26    | 5.61     | 11.03    | 6.21     | 7.17     | 9.26     |
|                          | Separated/Divorced | 10.45 | 10.91 | 6.07 | 11.64 | 8.92 | 9.09 | 15.53 | 9.87 | 11.77 |
|                          | Single     | 24.21    | 17.17    | 19.53    | 25.11    | 32.37    | 16.99    | 25.30    | 34.83    | 21.51    |
| Educational attainment   | Lower secondary | 25.77 | 22.99 | 22.20 | 40.97 | 25.71 | 11.54 | 22.35 | 18.17 | 43.55 |
|                          | Upper secondary or vocational | 42.90 | 45.82 | 39.21 | 42.99 | 42.64 | 62.97 | 38.60 | 45.65 | 24.19 |
|                          | University degree | 31.33 | 31.19 | 38.58 | 16.04 | 31.65 | 25.49 | 39.05 | 36.18 | 32.26 |
| Have children            | Yes b     | 28.25    | 28.69    | 26.83    | 29.77    | 29.44    | 25.09    | 29.64    | 30.98    | 24.72    |
| Employment status        | Full-time | 37.77    | 37.34    | 40.95    | 32.14    | 33.24    | 43.63    | 53.94    | 33.59    | 26.19    |
|                          | Part-time | 11.81    | 8.65     | 12.17    | 10.55    | 16.76    | 12.59    | 6.09     | 16.34    | 10.79    |
|                          | Unemployed | 8.76 | 6.09 | 6.82 | 12.18 | 5.29 | 5.40 | 7.13 | 3.93 | 24.29 |
|                          | Retired    | 30.62    | 39.10    | 28.34    | 34.09    | 32.35    | 24.74    | 26.00    | 33.89    | 27.14    |
|                          | Other      | 11.04    | 8.81     | 11.72    | 11.04    | 12.35    | 13.64    | 6.84     | 12.25    | 11.59    |

*Eligible but not interviewed; included population sample who refused, who were unreachable or with language problem; not eligible population sample included non-targeted population (less than 18 years old or non-European citizens for example) or for whom telephone number were not in service.

FR: France; IR: Ireland; IT: Italy; NL: Netherlands; PL: Poland; PT: Portugal; SE: Sweden; SP: Spain.

a: Marital status: Married or in civil union.

b: The proportion of ‘No’ answers can be deduced.

The proportion of missing values for all variables in the table was <2%.

https://doi.org/10.1371/journal.pone.0221896.t001
Knowledge about homelessness

Respondents reported a relatively poor knowledge of official estimates of homelessness numbers. For example, around 8% of French respondents came within 20% of French official. Across the overall sample, only 12.9% demonstrated ‘good’ knowledge (Table 2). Notably, Ireland and the Netherlands had a significantly higher percentage of more proximate answers compared to their counterparts (more than 20%). Regarding the sources of funding for homeless services, the proportions of good answers varied between 32% and 69% according to country.

Practices about homelessness

More than half of respondents reported having given food, money or offered some assistance to homeless people either in person or through a non-profit organization (Table 2). Fewer reported having volunteered in an organization assisting homeless people; the highest self-reported engagements were found in Portugal and Ireland.

Table 2. Knowledge about homelessness and respondent's self-reported practices over the last year (weighted study population).

| Practices | All (n(%)) | FR (n(%)) | IR (n(%)) | IT (n(%)) | NL (n(%)) | PL (n(%)) | PT (n(%)) | SE (n(%)) | SP (n(%)) | p-value |
|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|
| Help through organisation | Yes | 3,164 (60.2) | 368 (59.0) | 415 (61.4) | 430 (66.4) | 341 (49.7) | 379 (56.9) | 424 (62.8) | 380 (59.0) | 429 (67.4) |
| Volunteer work | Yes | 2,969 (56.7) | 285 (45.7) | 471 (69.8) | 309 (48.3) | 401 (59.1) | 344 (51.9) | 498 (73.7) | 334 (52.1) | 326 (51.3) |

FR: France; IR: Ireland; IT: Italy; NL: Netherlands; PL: Poland; PT: Portugal; SE: Sweden; SP: Spain.

https://doi.org/10.1371/journal.pone.0221896.t002
Attitudes about homelessness

Opinions varied significantly between countries. Most respondents reported seeing few or no homeless people in an average week. In contrast, when asked about the overall trend of homelessness in their country over the last 3 years, respondents reported an increase, most notably in France and in Italy. More than three-quarters of citizens thought the government should bear the main responsibility for the provision of emergency shelters and long-term housing (77.7% and 81.2%, respectively for overall sample) and that government spending (local or central level) on programs addressing homelessness was insufficient, especially in Portugal (85%) and in Spain (88%) (Table 3). Nonetheless, respondents were generally reluctant to pay more taxes to help reduce homelessness (“yes” 31.0%), especially in the Netherlands (18%), Italy (20.5%), and Poland (22.1%).

Table 3. Some attitudes of respondents about homelessness (weighted sample) (N%).

| COUNTRIES | Government spending on Homeless programs | Who should be mainly responsible for providing . . . | To reduce homelessness, would you be willing to . . . | Have a homeless shelter near your home |
|-----------|----------------------------------------|-----------------------------------------------|--------------------------------------------------|---------------------------------------|
| All (n(%)) | FR (n(%)) | IR (n(%)) | IT (n(%)) | NL (n(%)) | PL (n(%)) | PT (n(%)) | SE (n(%)) | SP (n(%)) | p-value |
| Too much | 128(2.4) | 16(2.6) | 4(0.7) | 11(1.8) | 9(1.3) | 24(3.5) | 21(3) | 39(5.8) | 3(0.5) | < .001 |
| Enough | 728(13.7) | 143(22.9) | 74(11) | 40(6.2) | 134(19.3) | 88(13) | 54(8) | 160(23.9) | 35(5.5) |
| Too little | 4,003(75.6) | 435(69.7) | 532(78.7) | 519(79.6) | 493(71) | 463(68.9) | 574(85) | 429(64.1) | 559(87.9) |
| DK/R | 439(8.3) | 30(4.8) | 65(9.7) | 81(12.5) | 58(8.4) | 98(14.5) | 27(4) | 41(6.1) | 39(6.1) |

| Emergency shelters | All (n(%)) | FR (n(%)) | IR (n(%)) | IT (n(%)) | NL (n(%)) | PL (n(%)) | PT (n(%)) | SE (n(%)) | SP (n(%)) | p-value |
|---------------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|
| Government | 4,114(77.7) | 485(77.8) | 563(83.3) | 553(84.8) | 416(60) | 452(67.3) | 579(85.6) | 572(85.6) | 493(77.6) | < .001 |
| NGOs | 736(13.9) | 123(19.7) | 78(11.6) | 24(3.7) | 199(28.7) | 125(18.5) | 67(9.9) | 22(3.3) | 98(15.4) |
| Religious groups | 178(3.4) | 6(1) | 7(1.1) | 39(5.6) | 33(4.9) | 8(1.1) | 20(3) | 27(4.2) |
| Homeless themselves | 144(2.7) | 9(1.5) | 16(2.4) | 11(1.7) | 17(2.5) | 49(7.3) | 7(1) | 35(5.3) | 1(0.1) |
| DK/R | 126(2.4) | 0(0) | 11(1.6) | 25(3.8) | 23(3.3) | 14(2.1) | 17(2.5) | 19(2.9) | 17(2.7) |

| Long-term housing | All (n(%)) | FR (n(%)) | IR (n(%)) | IT (n(%)) | NL (n(%)) | PL (n(%)) | PT (n(%)) | SE (n(%)) | SP (n(%)) | p-value |
|-------------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|
| Government | 4301(81.2) | 461(74) | 576(85.2) | 567(87) | 586(84.5) | 424(63.1) | 577(85.3) | 584(87.4) | 525(82.6) | < .001 |
| NGOs | 450(8.5) | 94(15.1) | 26(3.9) | 26(4) | 53(7.6) | 101(15) | 66(9.8) | 17(2.5) | 67(10.5) |
| Religious groups | 129(2.4) | 7(1.1) | 8(1.2) | 22(3.4) | 10(2.0) | 23(3.4) | 12(1.8) | 41(6.2) | 14(2.2) |
| Homeless themselves | 268(5.1) | 61(9.8) | 44(6.5) | 17(2.6) | 25(3.6) | 106(15.7) | 6(0.8) | 6(0.9) | 3(0.5) |
| DK/R | 150(2.8) | 0(0) | 21(3.1) | 19(3) | 29(4.1) | 18(2.7) | 15(2.3) | 20(3) | 27(4.2) |

| p-value | | | | | | | | | | |
|-------------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|------|
| Yes | 1,640(31) | 204(32.7) | 307(45.4) | 134(20.5) | 125(18) | 148(22.1) | 240(35.5) | 276(41.4) | 205(32.3) | < .001 |
| No | 3,325(62.7) | 419(67.1) | 281(41.6) | 411(63) | 545(78.5) | 500(74.3) | 394(58.2) | 374(55.9) | 401(63.1) |
| DK/R | 334(6.3) | 10(2.0) | 88(13) | 107(16.4) | 25(3.5) | 24(3.6) | 42(6.2) | 18(2.7) | 29(4.6) | < .001 |
| Yes | 2,390(45.1) | 254(40.7) | 315(46.6) | 289(44.3) | 175(25.2) | 219(32.6) | 510(75.4) | 265(39.7) | 363(57) | < .001 |
| No | 2,665(50.3) | 367(58.8) | 326(48.3) | 242(37.2) | 493(71.1) | 426(63.4) | 156(23.1) | 393(58.8) | 262(41.1) |
| DK/R | 243(4.6) | 3(0.6) | 34(5.1) | 121(18.5) | 26(3.7) | 27(4) | 10(1.4) | 10(1.6) | 12(1.8) | < .001 |
| Yes | 2,656(50.1) | 292(46.8) | 362(53.6) | 288(44.2) | 366(52.8) | 212(31.5) | 353(52.2) | 481(71.9) | 302(47.5) |
| No | 2,231(42.1) | 326(52.2) | 227(33.6) | 216(33.2) | 298(43) | 387(57.6) | 304(44.9) | 176(26.3) | 297(46.7) |
| DK/R | 411(7.8) | 7(1.1) | 87(12.8) | 148(22.7) | 29(4.2) | 73(10.8) | 19(2.8) | 12(1.8) | 37(5.8) |

FR: France; IR: Ireland; IT: Italy; NL: Netherlands; PL: Poland; PT: Portugal; SE: Sweden; SP: Spain; DK/R: Don’t know or refusal; NGOs: Non-governmental organizations; ERs: Emergency rooms

https://doi.org/10.1371/journal.pone.0221896.t003

European public perceptions of homelessness

PLOS ONE | https://doi.org/10.1371/journal.pone.0221896 September 25, 2019 7 / 16
When asked to list the three leading causes of homelessness, respondents in every country mentioned job loss (60.3% of overall sample) (S2 Table); addiction was also mentioned in all countries, except in France where indebtedness was mentioned more frequently, closely followed by divorce or the loss of family, rent arrears, with addiction appearing fifth. In all countries, the majority of respondents thought that homeless people had shorter lifespans than members of the general population, were the victims of violence, and were discriminated against when seeking employment. A sizeable proportion of respondents (48.3%) agreed with the statement that homeless people remain homeless by choice; significantly higher rates were observed in Poland (79.9%) and Portugal (67.6%). One third or more stated that homeless people eat at least two meals a day or are able to keep in touch with family and friends. These proportions are doubled in Poland (65.5% and 67.4% respectively). When respondents were asked about the integration of homeless people within the community, more than 40% stated that homeless people had access to paid or unpaid work.

Exploratory analysis on the attitudes variables

The hierarchical clustering (S1 Fig) performed on the MCA (S2 Fig) clearly identified three clusters of respondents: 1) people without opinion (in green, 12% of respondents); 2) people who thought that being homeless limited a person’s ability, that government interventions were insufficient to address homelessness, and who were willing to act to reduce homelessness (in black, 58% labelled as having “positive attitudes”); 3) people who held opposing opinions on the same items (in red, 30% labelled as having “negative attitudes”).

Multivariate analysis on attitudes

Nationality was seen to give some indication of attitudes about homelessness, with French and Polish respondents expressing more negative attitudes compared to other surveyed European countries (p < 0.001) (Table 4). Gender, age, educational attainment, employment status and marital status were not found to be significantly associated with attitudes. Our knowledge variables were also not significant associated with attitudes.

Discussion

In this study, we surveyed a representative sample of European adult citizens to explore the KAP about homelessness in Europe. Overall, our results revealed that a majority of European citizens reported positive attitudes toward people who are homeless, especially acknowledging that living on the street limits one’s capabilities, and also expressed a willingness for their governments to make a larger budget allocation to address homelessness. Compared to the limited existing European data on the same topic,[26,33] our results also suggest marked differences between countries in attitudes about homeless people.

Although most respondents reported not seeing people who are homeless in an average week, respondents from our study nevertheless recognized an increase in the number of people experiencing homelessness over the last 3 years, as confirmed by recent figures from European countries.[2,37,40,41,46,47] Compared to the 2010 Eurobarometer survey, a much higher proportion reported that many people in their area are homeless (14% vs. 3%).[33] This combination may reflect policies in force across several countries to reduce the visibility of people who are homeless by moving them on from public spaces, banning panhandling, or the hostile design of urban spaces to deter rough sleeping,[11,12] whilst demonstrating that such policies have not been effective at deflecting or ameliorating public concern with or awareness of homelessness.
Interestingly, we found that there were differences of opinion about the causes of homelessness. In Ireland, the Netherlands, Poland, Portugal, and Sweden, addiction was most often identified as the foremost cause of homelessness. Although unemployment was mentioned among the leading causes of homelessness in all countries, only in France, Italy, and Spain was it mentioned more often than other putative causes, reflecting the continuing economic impact, especially in Spain and in Italy, of the 2008 financial crisis. Toro and colleagues had already noted that Italians were more likely to recognize the prominence of economic factors in becoming homeless than other surveyed European countries. [26]

Table 4. Multivariate analysis on attitudes binary variable (positive versus negative attitudes) (N = 4,670, weighted sample).

|                           | Negative attitudes (N = 1,584; 33.92%) | Positive attitudes (N = 1,584; 33.92%) | Univariate analysis | Multivariate analysis |
|---------------------------|----------------------------------------|----------------------------------------|---------------------|-----------------------|
|                           | N (%) or mean (SD)                     | N (%) or mean (SD)                     | p value             | AOR                   | 95% CI | p value |
| **Sociodemographic variables** |                                        |                                        |                     |                       |        |         |
| Age (years)               | 49.9 (0.6)                             | 53.3 (1.5)                             | 0.027               | 0.99                  | 0.98–0.99 | 0.121   |
| Gender (Female)           | 1,549 (53.1%)                          | 811 (47.4%)                            | 0.191               | 1.09                  | 0.78–1.51 | 0.601   |
| Education attainment (ref lower secondary) |                                        |                                        |                     |                       |        |         |
| Upper secondary or vocational | 1,159 (40.4%)                        | 776 (46.0%)                             | 0.980               | 1.35                  | 0.63–2.85 | 0.433   |
| University Degree         | 1,030 (35.9%)                          | 452 (26.7%)                            | 0.145               | 1.64                  | 0.95–2.82 | 0.073   |
| Marital status (ref In couple) |                                        |                                        |                     |                       |        |         |
| Single/widowed/divorced   | 1,266 (43.4%)                          | 706 (41.2%)                            | 0.608               | 1.13                  | 0.83–1.52 | 0.432   |
| Child (Yes)               | 2,002 (71.7%)                          | 1,171 (74.6%)                          | 0.303               | 1.20                  | 0.93–1.53 | 0.142   |
| Working status (Unemployed)* | 1,510 (48.0%)                         | 795 (53.3%)                            | 0.238               | 1.18                  | 0.99–1.39 | 0.055   |
| Living area (ref Rural)   |                                        |                                        |                     |                       |        |         |
| Semi-urban                | 727 (25.1%)                            | 413 (24.6%)                            | 0.034               | 1.33                  | 1.07–1.66 | 0.008   |
| Urban                     | 1,671 (57.6%)                          | 859 (51.3%)                            | 0.076               | 1.34                  | 1.04–1.73 | 0.025   |
| Country (ref FR)          |                                        |                                        |                     |                       |        |         |
| IR                        | 428 (14.7%)                            | 158 (9.2%)                             | <0.001              | 1.81                  | 1.58–2.06 | <0.001  |
| IT                        | 346 (11.8%)                            | 129 (7.5%)                             | <0.001              | 2.19                  | 1.95–2.47 | <0.001  |
| NL                        | 371 (12.7%)                            | 237 (13.8%)                            | <0.001              | 1.27                  | 1.12–1.45 | <0.001  |
| PL                        | 146 (5.0%)                             | 409 (23.9%)                            | <0.001              | 0.24                  | 0.21–0.29 | <0.001  |
| PT                        | 513 (17.6%)                            | 115 (6.7%)                             | <0.001              | 2.51                  | 2.25–2.80 | <0.001  |
| SE                        | 405 (13.8%)                            | 231 (13.5%)                            | <0.001              | 1.40                  | 1.32–1.48 | <0.001  |
| SP                        | 385 (13.2%)                            | 164 (9.5%)                             | <0.001              | 2.18                  | 1.73–2.73 | <0.001  |
| **Practice variables**    |                                        |                                        |                     |                       |        |         |
| In person help (Yes)      | 2,021 (69.3%)                          | 776 (46.1%)                            | <0.001              | 2.51                  | 1.94–3.23 | <0.001  |
| Help through organisation (Yes) | 1,860 (64.0%)                     | 801 (47.7%)                            | <0.001              | 1.47                  | 1.22–1.77 | <0.001  |
| Volunteer work (Yes)      | 445 (15.4%)                            | 107 (6.4%)                             | <0.001              | 1.67                  | 1.16–2.41 | 0.005   |
| **Knowledge variables**   |                                        |                                        |                     |                       |        |         |
| Magnitude of homelessness (ref poor) |                                        |                                        |                     |                       |        |         |
| Partial                   | 130 (8.4%)                             | 248 (9.6%)                             | 0.450               | 1.05                  | 0.63–1.74 | 0.842   |
| Good                      | 192 (12.4%)                            | 366 (14.2%)                            | 0.589               | 1.01                  | 0.61–1.68 | 0.964   |
| Funding social services for homeless (Good) | 902 (52.9%)                         | 1,201 (41.2%)                          | 0.001               | 0.70                  | 0.46–1.06 | 0.093   |
| Funding healthcare services for homeless (Good) | 1,084 (63.6%)                     | 1,676 (57.6%)                          | 0.175               | 0.86                  | 0.63–1.18 | 0.359   |

Generalized linear model (using a quasi-binomial distribution). SD: Standard deviation; AOR: adjusted odds ratio; 95%CI: 95% Confidence Interval; FR: France; IR: Ireland, IT: Italy, NL: The Netherlands; PL: Poland; PT: Portugal; SE: Sweden; SP: Spain.

a: Working status: Employed (including Full-time and Part-time) or Unemployed (including Retired and other working status)

https://doi.org/10.1371/journal.pone.0221896.t004
While more than three quarters of respondents acknowledged that people living on the streets experienced discrimination when seeking employment, loss of life expectancy or violence, our results also evidenced a proportion of respondents who thought becoming homeless was a choice, most notably in Italy and Poland. Similarly, nearly 50% of respondents agreed with the idea that homeless people remain homeless by choice, with significantly higher numbers in Poland (79%) and Portugal (67%). This suggests that ‘homelessness as a choice’ is a widely held opinion in Europe, although this encompasses a complex dynamic in which liberal social values foreground choice in an economic environment in which choices can be severely constrained, particularly for people who experience homelessness. As previous studies have discussed, people who are homeless may themselves consider their position to result from personal choices, whilst acknowledging that these choices were severely restricted.[48] Despite this, another study in the USA showed that around 57% respondents believed laziness to play a role in homelessness,[49] and it is likely that our results suggest that such negative perceptions of people who are homeless persist across Europe, with variances between countries.

Contrary to respondents in Toro and colleagues’ study [26], a majority of respondents were reluctant to pay more taxes to address homelessness, suggesting a possible shift in attitudes since Toro et al’s 1999–2002 timeframe. Considering the responsibility for providing long-term housing, the surveyed countries face similar problems: the production of social housing or capacity thereof remains insufficient despite several action plans, such as Rebuilding Ireland or the Multi-annual plan against poverty and social inclusion 2013–2017 in France. In Sweden, homeless people with low to moderate needs find shelter and ultimately stable housing not within the regular housing market but within the “secondary housing market” administered by local authorities.[50] Tenants within the secondary housing market have difficulty returning to the regular housing market, partly because of the shortage in affordable housing but also because the municipalities have no say in the allocation of social housing in the regular housing market. In France, local authorities can influence the allocation of funds for social housing in favor of homeless people, even more so since the introduction of the Enforceable Right to Housing act in 2007 (DALO in French). However, the continued shortage in social housing stock undermines this right to housing.

The general level of knowledge about homelessness as assessed in our study was low. Regarding the magnitude of homelessness, there are a variety of possible reasons for the generally poor ability to approximate official estimates of homelessness in each country. These could range from a possibly low ability to envisage national figures, to over or under-estimates based on perceived local prevalence or personal perceptions of the extent of homelessness. This would certainly be complicated by the difficulties involved in defining and quantifying homelessness, which can produce widely varying estimates.[51] Depending on the public’s exposure to these debates, such issues could exacerbate disparities between respondent’s estimates and official statistics.

The generally poor understanding of funding for social services for people who are homeless is also notable. In the majority of the surveyed countries (France, Ireland, the Netherlands, Spain, and Sweden) local authorities (municipalities) are enablers of organizations providing social services to homeless people by purchasing these services with local funds or disbursements from the central government. Therefore, although the funding is public, service provision is carried out by secular or faith-based non-governmental organizations (NGOs). This could explain why only a small majority of French, Spanish and a narrow majority of Polish respondents reported accurately that most of the funding of such services is public. This does not negate the fact that some NGOs also benefit from donations, which can represent a sizable proportion of their budget, if not, for some, their major source of funding. This is the case for the Foundation Abbé Pierre in France, for which donations accounted for 90% of their
budget whilst public funds represented only 2% during the 2016–2017 fiscal year.[52]

Although Foundation Abbé Pierre is unusual in France, such privately funded organizations are prominent and well-established service providers of emergency services and shelters in Spain and Sweden.[53] Italy represents a special case, as the majority of homelessness services are supplied without public funds.[54] However, the majority of Italian respondents were unaware of this fact, and so appear to have underestimated the involvement of faith-based organizations who are well-established and prominent funders and providers of these services. Conversely, the majority of respondents knew that the government funds healthcare services for homeless people; out of the eight countries, only respondents from Ireland and Portugal thought NGOs played a prominent role in funding healthcare.

Interestingly, demographic variables across Europe as a whole, had no impact on positive attitudes towards people who are homeless. This observation is contrary to other studies that have suggested gender as a predictor of attitudes, with women more likely to consider homelessness as a growing concern, to support increase in federal spending for homelessness and to favor work-oriented interventions as a means of reducing homelessness.[24] Also, Tompsett and colleagues linked higher education with perceiving seeing homelessness as the result of personal flaws,[29] which we did not find in this survey. These studies were conducted in the USA, and this may explain the differences with our study interviewing European citizens, although this certainly warrants further investigation.

Limitations

There are some limitations to the study design that should be considered while interpreting these findings. Social desirability bias may have led some participants to express more positive attitudes than they hold privately.[55] However, the anonymity of the telephone survey procedure usually allows more self-expression than face-to-face interviews.[56] Interviewers were trained to administer the survey systematically, so to avoid leading responses. To compensate for the potential under sampling of certain groups, interviewers were instructed to call unanswered landlines or cellphones fifteen times before discarding them, and to offer appointments to either start or complete an interview. In addition, following a comparison of respondents’ demographic characteristics to national census data, weights were applied for the analyses of the knowledge, attitudes, and practices of the general population of each country to reflect the national distribution of age, sex, and education.

Policy implications

This study demonstrates that the majority of European citizens hold positive attitudes about homelessness and wish that European states would do more to reduce it. Our results suggest that policy makers should plan for careful reallocation of funds in favor of programs that effectively address homelessness. However, for these programs to be fully successful, they should aim to address the significant numbers who continue to hold negative attitudes towards people who are homeless. The generally poor knowledge of the magnitude of homelessness, and the funding of social and healthcare services for people who are homeless, suggests that public discussion could be improved to better inform citizens.

Supporting information

S1 Table. Attitudes’ items.

(DOC)
S2 Table. Attitudes of respondents about homelessness.

S1 Fig. Factor map.

S2 Fig. CA factor map.

S1 File. Survey Questionnaire in eight European languages.

Acknowledgments

The authors are especially grateful to Paul Toro for sharing his research instruments with us. We also thank all interviewers who contributed to data collection and M2Consultant firm for its work monitoring the procedures for the telephone survey.

Members of the HOME-EU (Horizon 2020 GA/726997) consortium study group:

Lead Author: José Ornelas (Principal Investigator) Contact: jornelas@ispa.pt

Maria J. Vargas-Moniz, Maria F Jorge-Monteiro, (APPsyCI–Applied Psychology Research Center Capabilities and Inclusion, ISPA-Instituto Universitário, Rua Jardim do Tabaco, 34, 1149–041 Lisboa, Portugal); Ronni M. Greenwood, Rachel M. Manning, Branagh O’Shaughnessy (Department of Psychology, University of Limerick, Limerick, V94 T9PX, Ireland); Inês Almas, Teresa Duarte (AEIPS–The Association for Study and Psychosocial Integration; Housing First project: Casas Primeiro, Av. António José de Almeida, 26, 1000–043 Lisboa, Portugal); Francesca Disperati, Marta Gaboardi, Michela Lenzi, Massimo Santinello, Alessio Vieno (Department of Developmental and Social Psychology, University of Padova, Via Venezia, 8–35131 Padova, Italy); Rita P. Marques, Maria Carmona, Américo Nave (Crescer–Community Intervention Association, Bairro Qta Cabrinha 3–E/F 1300–906 Lisboa, Portugal); Freek Spinnewijn (FEANTSA, European Federation of National Organisations Working with the Homeless, Chausse de Louvain 194 Bruxelles 1210, Belgium); Roberto Bernad, Borja Rivero, Martin Julián (Rais Fundación, C/ Ardemans 42, 28028 Madrid, Spain); Anna Boksztzanin, Barbara Zmaczynska–Witek, Skalacka Katarzyna, Aleksandra Rogowska (Institute of Psychology, Opole University, Pl. Staszica 1, 45–052 Opole, Poland); Sandra Schel, Yvonne Peters, Tessa van Loenen, Liselotte Raben, Judith R. Wolf (Radboud university medical center, Radboud Institute for Health Sciences, Impuls—Netherlands Center for Social Care Research, Geert Grootepoel 27, 6525 EZ Nijmegen, The Netherlands); Ulla Beijer, Mats Blid, Hakan Kallmen (STAD, Stockholm Center for Psychiatry Research and Education, Karolinska Institutet, Norra Stationsgatan 69, 113 64 Stockholm, Sweden); Teresa Bispo, Tiago Cruz, Carla Pereira, (Câmara Municipal de Lisboa [The Lisboa City Council], Praça do Município 38, 1100–038 Lisboa, Portugal); Pascal Auquier, Junie M. Petit, Owen Taylor (Aix-Marseille Univ, School of medicine–La timone Medical Campus, EA3279 CERESS–Health Service Research and Quality of Life Center, 27 Boulevard Jean Moulin, 13385 Marseille, France), Sandrine Loubière, Aurélie Tinland (Department of Research and Innovation, Support Unit for clinical research and economic evaluation, Assistance Publique–Hôpitaux de Marseille, 27 Boulevard Jean Moulin, 13385 Marseille, France).

Author Contributions

Conceptualization: Junie Petit, Sandrine Loubiere, Maria Vargas-Moniz, Freek Spinnewijn, Rachel Manning, Massimo Santinello, Judith Wolf, Anna Boksztzanin, Roberto Bernad, Hakan Kallmen, Jose Ornelas, Pascal Auquier.
**Data curation:** Junie Petit, Sandrine Loubiere.

**Formal analysis:** Junie Petit, Sandrine Loubiere, Aurlie Tinland.

**Funding acquisition:** Sandrine Loubiere, Maria Vargas-Moniz, Freek Spinnewijn, Rachel Manning, Massimo Santinello, Judith Wolf, Roberto Bernad, Hakan Kallmen, Jose Ornelas, Pascal Auquier.

**Investigation:** Sandrine Loubiere.

**Methodology:** Sandrine Loubiere, Pascal Auquier.

**Project administration:** Sandrine Loubiere.

**Resources:** Sandrine Loubiere.

**Software:** Sandrine Loubiere.

**Supervision:** Sandrine Loubiere.

**Validation:** Sandrine Loubiere, Aurlie Tinland, Maria Vargas-Moniz, Rachel Manning, Massimo Santinello, Judith Wolf, Roberto Bernad, Hakan Kallmen, Jose Ornelas, Pascal Auquier.

**Visualization:** Sandrine Loubiere.

**Writing – original draft:** Junie Petit, Sandrine Loubiere, Pascal Auquier.

**Writing – review & editing:** Sandrine Loubiere, Aurlie Tinland, Maria Vargas-Moniz, Freek Spinnewijn, Rachel Manning, Massimo Santinello, Judith Wolf, Anna Bokszczanin, Roberto Bernad, Hakan Kallmen, Jose Ornelas, Pascal Auquier.

**References**

1. Feantsa, The Foundation Abbe Pierre. The Third Overview of Housing Exclusion in Europe 2018 [Internet]. Brussels; 2018 Mar p. 57. Available: https://www.feantsaresearch.org/en/report/2018/03/21/the-third-overview-of-housing-inclusion-in-europe-2017

2. The Foundation Abbe Pierre, Feantsa. The Second Overview of Housing Exclusion in Europe 2017 [Internet]. Brussels; 2017 Mar p. 67. Available: http://www.feantsa.org/en/report/2017/03/21/the-second-overview-of-housing-exclusion-in-europe-2017

3. European Commission. Confronting homelessness in the European Union. Social investment package. Commission staff working document. SWD (2013) 42 final, 20 February 2013 [Internet]. 2013. Available: http://aei.pitt.edu/45917/

4. Fazel S, Geddes JR, Kushel M. The health of homeless people in high-income countries: descriptive epidemiology, health consequences, and clinical and policy recommendations. The Lancet. 2014; 384: 1529–1540. https://doi.org/10.1016/S0140-6736(14)61132-6 PMID: 25390578

5. Fazel S, Khosla V, Doll H, Geddes J. The Prevalence of Mental Disorders among the Homeless in Western Countries: Systematic Review and Meta-Regression Analysis. PLoS Med. 2008; 5. https://doi.org/10.1371/journal.pmed.0050225 PMID: 19053169

6. Nordentoft M, Wandall-Holm N. 10 year follow up study of mortality among users of hostels for homeless people in Copenhagen. BMJ. 2003; 327: 81. https://doi.org/10.1136/bmj.327.7406.81 PMID: 12855527

7. Beijer U, Bruce D, Burström B. Changes over time in the risk of hospitalization for physical diseases among homeless men and women in Stockholm: A comparison of two cohorts. Scand J Public Health. 2016; 44: 784–790. https://doi.org/10.1177/1403490416667160 PMID: 28929931

8. Hwang SW, Chambers C, Chiu S, Katic M, Kiss A, Redelmeier DA, et al. A Comprehensive Assessment of Health Care Utilization Among Homeless Adults Under a System of Universal Health Insurance. Am J Public Health. 2013; 103: S294–S301. https://doi.org/10.2105/AJPH.2013.301369 PMID: 24148051

9. Pleace N, Baptista I, Benjaminsen L, Busch-Geertsema V. The Costs of Homelessness in Europe: An Assessment of the Current Evidence Base. Feantsa; 2013.
10. Zaretzky K, Flatau P. The cost of homelessness and the net benefit of homelessness programs: a national study [Internet]. Melbourne: Australian Housing and Urban Research Institute Limited; 2013. Report No.: 128. Available: https://www.ahuri.edu.au/research/final-reports/218

11. Doherty J, Busch-Geertsema V, Karpuksiene V, Korhonen J, O’Sullivan E, Sahlin I, et al. Homelessness and Exclusion: Regulating public space in European Cities. Surveill Soc. 2002; 5. https://doi.org/10.24908/ss.v5i3.3425

12. O’Sullivan E. Sustainable Solutions to Homelessness: The Irish Case. Part B. 2008; 2: 29.

13. Stuckler D, Reeves A, Loopstra R, Karanikolos M, McKee M. Austerity and health: the impact in the UK and Europe. Eur J Public Health. 2017; 27: 18–21. https://doi.org/10.1093/eurpub/ckx167 PMID: 29028245

14. Bernad R, Yuncal R, Panadero S. Introducing the Housing First Model in Spain: First Results of the Habitat Programme. Eur J Homelessness. 2016; 10.

15. Busch-Geertsema V. Housing first Europe–results of a European social experimentation project. Eur J Homelessness. 2014; 8: 13–28.

16. Lancione M, Stefanizzi A, Gabardi M. Passive adaptation or active engagement? The challenges of Housing First internationally and in the Italian case. Hous Stud. 2018; 33: 40–57. https://doi.org/10.1080/02673037.2017.1344200

17. The Center for Social Justice. Housing First. Housing-led solutions to rough sleeping and homelessness. [Internet]. London; 2017 Mar. Available: https://www.centreforsocialjustice.org.uk/core/wp-content/uploads/2017/03/CSJJ5157_Homelessness_report_070317_WEB.pdf

18. Tinland A, Fortanier C, Girard V, Laval C, Videau B, Rhenter P, et al. Evaluation of the Housing First program in patients with severe mental disorders in France: study protocol for a randomized controlled trial. Trials. 2013; 14: 309. https://doi.org/10.1186/1745-6215-14-309 PMID: 24063556

19. Burstein P. The Impact of Public Opinion on Public Policy: A Review and an Agenda. Polit Res Q. 2003; 56: 29–40. https://doi.org/10.1177/106591290305600103

20. Shapiro RY. Public Opinion and American Democracy. Public Opin Q. 2011; 75: 982–1017. https://doi.org/10.1093/poq/nfr053

21. Lee BA, Jones SH, Lewis DW. Public Beliefs about the Causes of Homelessness. Soc Forces. 1990; 69: 253–266.

22. Link BG, Schwartz S, Moore R, Phelan J, Struening E, Stueve A, et al. Public knowledge, attitudes, and beliefs about homeless people: Evidence for compassion fatigue? Am J Community Psychol. 1995; 23: 533–555. https://doi.org/10.1007/BF02506967 PMID: 8546109

23. Tompsrett CJ, Toro PA, Guzicki M, Manrique M, Zataki A. Homelessness in the United States: assessing changes in prevalence and public opinion, 1993–2001. Am J Community Psychology. 2006; 37: 47–61. https://doi.org/10.1007/s10464-005-9007-2 PMID: 16680536

24. Toro PA, McDonnell DM. Beliefs, attitudes, and knowledge about homelessness: a survey of the general public. Am J Community Psychol. 1992; 20: 53–80. PMID: 1562003

25. Tsai J, Lee CYS, Byrne T, Pietrzak RH, Southwick SM. Changes in Public Attitudes and Perceptions about Homelessness Between 1990 and 2016. Am J Community Psychol. 2017; 60: 599–606. https://doi.org/10.1007/s10464-017-0002-x PMID: 29027669

26. Toro PA, Tompsrett CJ, Lombardo S, Philippot P, Nachtergael H, Galand B, et al. Homelessness in Europe and the United States: A Comparison of Prevalence and Public Opinion. J Soc Issues. 2007; 63: 505–524. https://doi.org/10.1111/j.1540-4560.2007.00521.x

27. Beaton DE, Bombardier C, Guillemin F, Ferraz MB. Guidelines for the process of cross-cultural adaptation of self-report measures. Spine. 2000; 25: 3186–3191. https://doi.org/10.1097/00007632-200012150-00014 PMID: 11124735

28. Petit JM, Loubiere S, Vargas-Moniz MJ, Tinland A, Spinnewijn F, Greenwood RM, et al. Knowledge, attitudes, and practices about homelessness and willingness-to-pay for housing-first across 8 European countries: a survey protocol. Arch Public Health. 2018; 76: 71. https://doi.org/10.1186/s13690-018-0317-x PMID: 30595443

29. Tompsrett CJ, Toro PA, Guzicki M, Manrique M, Zataki A. Homelessness in the United States: Assessing Changes in Prevalence and Public Opinion, 1993–2001. Am J Community Psychol. 2006; 37: 29–46. https://doi.org/10.1007/s10464-005-9006-3

30. Kothandapani V. Validation of feeling, belief, and intention to act as three components of attitude and their contribution to prediction of contraceptive behavior. J Pers Soc Psychol. 1971; 19: 321–333. https://doi.org/10.1037/0022-3514.70.2.321 PMID: 5120021

31. Rogers ES, Chamberlin J, Ellison ML, Crean T. A consumer-constructed scale to measure empowerment among users of mental health services. Psychiatr Serv Wash DC. 1997; 48: 1042–1047. https://doi.org/10.1176/ps.48.8.1042 PMID: 9255897
32. McColl MA, Davies D, Carlson P, Johnston J, Minnes P. The community integration measure: Development and preliminary validation. Arch Phys Med Rehabil. 2001; 82: 429–434. https://doi.org/10.1053/apmr.2001.22195 PMID: 11295000

33. TNS Opinion & Social. Poverty and Social Exclusion [Internet]. Brussels: European Commission; 2010 Dec. Available: https://data.europa.eu/euodp/en/data/dataset/S888_74_1_EBS355

34. L’hébergement des sans-domicile en 2012—Insee Première—1455 [Internet]. [cited 9 Jan 2019]. Available: https://www.insee.fr/fr/statistiques/1281324#documentation

35. Department of Housing, Planning and Local Government. Homelessness Report—February 2017. In: Homelessness Data [Internet]. 29 Sep 2017 [cited 6 Sep 2018]. Available: https://www.housing.gov.ie/housing/homelessness/homelessness-report-february-2017

36. ISTAT [National Institute of Statistics]. The homeless [Internet]. 3 Jun 2016 [cited 9 Jan 2019]. Available: https://www.istat.it/en/archive/186791

37. CBS-Statistics Netherlands. Daklozen; persoonskenmerken [Homeless people; personal characteristics] [Internet]. 26 Dec 2016 [cited 13 Sep 2018]. Available: http://statline.cbs.nl/StatWeb/publication/?VW=T&DM=SLNL&PA=80799ned&LA=NL

38. FEANTSA. Homelessness Country Profile—Poland [Internet]. 2017 [cited 13 Sep 2018]. Available: https://www.feantsa.org/en/country-profile/2016/10/19/country-profile-poland?bcParent =27

39. FEANTSA. Homelessness Country Profile—Portugal [Internet]. 2017 [cited 13 Sep 2018]. Available: https://www.feantsa.org/en/country-profile/2016/10/19/country-profile-portugal?bcParent =27

40. Socialstyrelsen-The National Board of Health and Welfare. Hemlöshet 2017 –omfattning och karaktär [Homelessness 2017—Extent and Character] [Internet]. 2017 Nov p. 109. Available: http://www.socialstyrelsen.se/Lists/Artikellistor/Attachments/20765/2017-11-15.pdf

41. Ministry of health, Social services and equality. Comprehensive National Strategy for the Homeless 2015–2020 [Internet]. 2015 Nov p. 65. Available: https://www.mscbs.gob.es/salud/infancia/Servicios Sociales/Estrategia de Personas Sin Hogar.htm

42. The World Bank. World Development Indicators | DataBank. Health: Population: Structure. [Internet]. [cited 11 Jan 2019]. Available: https://databank.worldbank.org/data/source/world-development-indicators

43. Eurostat. Database—Eurostat [Internet]. [cited 11 Jan 2019]. Available: https://ec.europa.eu/eurostat/web/population-demography-migration-projections/data/database

44. Greenacre M. Correspondence analysis in medical research. Stat Methods Med Res. 1992; 1: 97–117. https://doi.org/10.1177/096228029200100106 PMID: 1341654

45. R Core Team. R: A language and environment for statistical computing [Internet]. R Foundation for Statistical Computing. Vienna, Austria; 2013. Available: http://www.R-project.org/

46. Department of Housing, Planning and Local Government. Homelessness Report—June 2018. In: Homelessness Data [Internet]. Jun 2018 [cited 13 Sep 2018]. Available: https://www.housing.gov.ie/sites/default/files/publications/files/homeless_report_-_june_2018.pdf

47. Yaouancq F, Lébrere A, Marpsat M, Régnier V, Legleye S, Quaglia M. L’hébergement des sans-domicile en 2012. 2013; 4.

48. Parsell C, Parsell M. Homelessness as a Choice. Hous Theory Soc. 2012; 29: 420–434. https://doi.org/10.1080/14036096.2012.667834

49. Phillips L. Homelessness: Perception of Causes and Solutions. J Poverty. 2015; 19: 1–19. https://doi.org/10.1080/10875549.2014.951981

50. Sahlin I. Searching for a Homeless Strategy in Sweden. Eur J Homelessness Vol. 2015;9. Available: http://www.feantsaresearch.org/download/sahlinehj2-2015article75314241682779219947.pdf

51. Hobden K, J. Tompsett C, K Fales A, Toro P. Comparing Public Opinion Towards and Prevalence of Homelessness in Canada to the United States. Can J Urban Res. 2007; 6: 76–92.

52. Fondation Abbé Pierre. L’essentiel des actions et des comptes dela Fondation Abbé Pierre -Exercice du 1er octobre 2016 au 30 septembre 2017 [The essentials of the actions and accounts of the Fondation Abbé Pierre-Exercise October 1, 2016 to September 30, 2017] [Internet]. 2017 p. 3. Available: http://www.fondation-abbé-pierre.fr/documents/pdf/essential_des_actions_et_des_comptes_de_la_fondation_abbe_pierre_2016-2017.pdf

53. Fitzpatrick S, Stephens M. An international review of homelessness and social housing policy [Internet]. London: Department for Communities and Local Government; 2007. Available: http://www.communities.gov.uk/documents/housing/pdf/reviewhomelessness

54. FEANTSA. Country Profile—Italy [Internet]. 2017 [cited 11 Jan 2019]. Available: https://www.feantsa.org/en/country-profile/2016/10/18/country-profile-italy?bcParent =27
55. Krumpal I. Determinants of social desirability bias in sensitive surveys: a literature review. Qual Quant. 2013; 47: 2025–2047. https://doi.org/10.1007/s11135-011-9640-9

56. Díaz de Rada V. Face-to-face versus telephone surveys on political attitudes: a comparative analysis. Qual Quant. 2011; 45: 817–827. https://doi.org/10.1007/s11135-010-9373-1
