Who are the homeless and what kind of problems do they have? A review of the literature

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Abstract

Introduction: The publications about homeless persons and homelessness are very popular among scientists. Entering the keyword 'homeless' returns about 17 thousand hits in the PubMed search engine. What is so interesting about homelessness that so many researchers devote their time and resources to this topic?

Aim: Our paper is an attempt to answer the question about that, and partially about the genesis of homelessness.

Material and methods: The PubMed and Scopus databases have been researched. We selected the articles related to the most common pathologies among the homeless.

Results and discussion: The background of the phenomenon of homelessness is described in the context of the most commonly reported shared elements i.e. poverty, social exclusion, high mortality rates, male predominance, alcohol and drug dependence, intellectual deficits, depressive disorders and suicides. We described the differences resulting from geographical location and environmental factors. We are trying to elucidate the reasons for the discrepancies between individual investigators studying similar problems at different places and at different times.

Conclusions: Homeless people are not a different species. They are a derivate of societies on the margins of which these people live. They are therefore different in the geographical sense, but in a given area they change with time similarly to the local population.
1. Introduction
The publications about homeless persons and homelessness are very popular among scientists. Entering the keyword ‘homeless’ returns about 17 thousand hits in the PubMed search engine and over 37 thousand hits in the ScienceDirect search engine. Why so many? What is so interesting about homelessness that so many researchers devote their time and resources to this topic? Most publications, however, focus on relatively few areas, mainly: nutritional status, addictions, psychiatric disorders, injuries and accidents, infectious diseases (mainly tuberculosis, HIV infection and hepatitis) and, to a lesser degree, cardiovascular disease.1–5 Interestingly, an analysis of these reports reveals that the results they describe vary considerably depending on when and where specific studies were conducted. Changes taking place in recent decades in the general population of most countries in the world, such as easy and cheap access to mobile technologies and widespread, often free access to the Internet. They are also changing the view of the subpopulation of homeless people.6–8 The phone number and e-mail address are often their only address. It seems, however, that despite the opportunity to draw knowledge from numerous sources, the main, core problems of this marginalized subpopulation change slower and differently than the general population. Thanks to these technologies, the homeless (especially youth) have easier access to social and medical care, but they are also more susceptible to the pathological influences of modern civilization.9,10 In order to explain this we should start from the basics: the definition of homelessness.

2. Aim
Our paper is an attempt to elucidate the reasons for the discrepancies among individual investigators studying the problem of homelessness in different places and at different times and partially to introduce the phenomenon of the genesis of homelessness.

3. Material and methods
The PubMed and Scopus databases have been researched. We selected the articles related to the most common pathologies among the homeless. We present some elements of the social pathology represented by homelessness, and the differences resulting from geographical location and environmental factors. Our topics were poverty, addictions, psychiatric disorders, duration of life, infectious diseases, injuries and suicides.

4. Results and discussion

4.1. The definition of homelessness
The problems start at the very outset: when we attempt to define homelessness. Until 2005, when FEANTSA introduced the ETHOS typology, there was considerable freedom in this respect.11 Authors of publications, when defining the number of homeless individuals, relied upon legal, local (meaning national) definitions. The introduction of this standard has not, however, solved all the problems. The ETHOS typology is not used in the United States, the country where most scientific publications on homelessness originate. What is more, it is completely unsuitable for use in poorly developed and tropical countries. According to this typology, authors of medical publications are generally interested in people living in public spaces (ETHOS 1.1), those who stay in night shelters and in hostels (ETHOS 2.1 and 3.1) and residents of women’s shelters (ETHOS 4.1), with all these categories combined being most commonly treated as the homeless. The remaining categories, e.g. care homes, rotational flats etc., are more a topic of interest among sociologists. It is therefore not surprising that this definition is not particularly popular among authors of medical scientific papers. So it can be assumed that there is no international consensus on the definition of homelessness.1

4.2. Demographics
FEANTSA estimates that in 2023 at least 895 thousand people will be homeless in Europe. In Germany in 2022 among 262,645 homeless 32,467 fulfilled the ETHOS 1 category (living rough).12 The statistic of homelessness on the European scale presents a slow but systematic increase in past decades. For our further divagations more important is the fact that when one analysis reports on homelessness, one can easily notice that irrespective of the source (a scientific paper, a government report); the male-to-female predominance is emphasised. The FEANTSA report of 2012 estimates the percentage of males at about 65%–85% depending on the country, with the highest value being reported for Italy (87%) and the lowest for France and Sweden – 62% and 64%, respectively.13 The percentage of males reported for the United States is similar – 63%.14 Nilsson et al, in a quite fresh and based on a large database (152 publications) metanalysis, estimated that the risk of becoming homeless among males is 1.5 higher.15 These figures are not only provided here for informative purposes but also because homelessness.
ness is generally perceived as a sociological phenomenon, while—from the medical point of view—a marked predominance of one sex over the other, in any pathology, suggests the need for a more in-depth analysis. The data on the demographic aspects of homelessness is complemented by the information that most homeless individuals (often up to 90%) are people living a single life.\textsuperscript{26–29} The mean age of the homeless individuals in population reports varies from 20 to 40 years, which is considerably higher than the age of the general population.\textsuperscript{30–32} The prevalence of mental disorders among homeless people is much higher than in the general population.\textsuperscript{33–35} The most frequent causes of death amongst the homeless were circulatory system diseases. Cardiovascular diseases are also the most common cause of mortality in the general population, but in this case the association with lifestyle is particularly interesting. According to various studies, the percentage of active smokers amongst the homeless has been consistently estimated at 80%–90%, whether a given study has been conducted in Europe, America or Asia.\textsuperscript{36–38} Smoking is an evident cardiovascular risk factor but any further associations that have been reported are more difficult to understand. TLee et al. point out to the higher prevalence of hypertension and hypercholesterolaemia.

4.5. Psychiatric disorders

The mean prevalence of any current mental disorder among the homeless was estimated at 76.2%.\textsuperscript{2} Depression is one of the most commonly reported diagnosis in this group of people. According to the meta-analysis by Ayano, depressive symptoms affects 46.72% of homeless individuals (major depressive disorders – 26.24%).\textsuperscript{2} These findings are more interesting given the fact that, single middle-aged men account for the majority of homeless populations, within this age group, depression is twice as common in women.\textsuperscript{27}

The prevalence of schizophrenia and other psychotic disorders among homeless people are much higher than in the general population.\textsuperscript{28} According to meta-analysis by Gutwinski et al schizophrenia spectrum disorders affects 124% of them.\textsuperscript{2} Depressive disorders and schizophrenia spectrum disorders usually coexist with cognitive impairment.\textsuperscript{29} Waclawik et al. estimates that 56% of marginally housed youth suffers from cognitive impairment.\textsuperscript{30} What is more, it seems that this phenomenon is independent of geographic location. The low intellectual level of homeless individuals is not only mentioned in publications originating from Europe or North America but also in reports from, for example, India and Japan.\textsuperscript{31–35}

4.6. Duration of life

The issue of high mortality rates among homeless people, especially in the younger age groups, cannot be overlooked here. The life expectancy amongst the homeless is 15.9–17.5 years shorter than in the general population.\textsuperscript{36,37} The most frequent causes of death are circulatory system diseases. Cardiovascular diseases are also the most common cause of mortality in the general population, but in this case the association with lifestyle is particularly interesting. According to various sources, the percentage of active smokers amongst the homeless has been consistently estimated at 80%–90%, whether a given study has been conducted in Europe, America or Asia.\textsuperscript{36–38} Smoking is an evident cardiovascular risk factor but any further associations that have been reported are more difficult to understand. TLee et al. point out to the higher prevalence of hypertension and hypercholesterolaemia.
in this population but this report should probably not be generalised. Kaldmäe et al. found that 100% of the homeless individuals they studied had normal values of HDL and this has not been the only publication to report that.41–43 Perhaps the issue of cardiovascular disease in this group of people should also be viewed in the context of addictions and local factors. Obesity is, after all, the strongest cardiovascular risk factor.44 Obesity, i.e. the factor that is rarely associated with homelessness. The first association with homelessness that springs into mind is poverty, whose natural consequence should be malnutrition, not obesity. Meanwhile it turns out that reports of obesity amongst the homeless are currently much more common than those of malnutrition, especially in publications originating from North America. According to Maness et al. (USA), 64% of the homeless are obese or overweight.45 These data are even more interesting when confronted with the fact that 71.6% of the male population in the United States are overweight.46 However, in European and Asian publications these rates are lower. Scott et al. (Ireland) report that 22% of the homeless population they studied, had BMI exceeding 30 kg/m². Arnaud et al. report merely about 10% in their data from Paris.47–49 The data based on sources from Japan and Taiwan presents European level of obesity frequency.50,51

4.7. Infectious diseases
Many authors point out in their papers to the fact that tuberculosis is several dozen times more prevalent amongst the homeless than in the general population.55,52 Typical for this subpopulation – delayed diagnosis, interrupting the treatment, and periodic (especially at winter time) cohabitation of healthy and sick persons at social care facilities (shelters) contribute to the transmission of the infection.52–55 It is especially evident in large urban agglomerations, and sufficiently well described at the same time to prompt the relevant bodies to issue official recommendations.56 It is worth mentioning that the one of the most common causes of death among the young homeless – AIDS, currently after the implementation effective antiretroviral therapy, has lost some of its importance.55–58 However, infectious diseases are still a large problem in this subpopulation, COVID-19 epidemic was an example. People experiencing homelessness had several times greater mortality and risk of hospitalization than so-called general population.55,59

4.8. Injuries
Head injuries among homeless are much more common here than in the general population. Topolovec-Vranic et al. demonstrated a history of head injury in more than a half of homeless individuals they investigated.60 Furthermore, returning to the issue of addictions, the association between injuries and alcohol consumption is obvious here, similarly to the association between excessive alcohol consumption and increased mortality – an U-shaped curve.62,63 Two further characteristic features should be mentioned here: one with a northward gradient, namely deaths from overheating.64,65 Deaths caused by hypothermia (Poland) are 13-fold more frequently among the homeless than for the general population.36

4.9. Suicides
The frequently reported cases of suicide in this group of people, much more common than in the general population, result from the widespread presence of depressive disorders, the frequent presence of schizophrenia spectrum disorders and from the high prevalence of addictions.56–66 Nilsson et al. estimate suicide-related mortality rate amongst the homeless at 174.4 per 100 thousand person-years.66 The high risk of suicide generally shows no geographic variation. Fekadu et al. report that as many as 14.8 of the homeless individuals in Addis Ababa, Ethiopia, admitted to a suicide attempt in the previous month, while Okamura et al. report that in their study 17.7% of homeless people in Tokyo, Japan, admitted to a suicide attempt in the past.59,60 These values, irrespective of the way they are presented, are very high.

5. Conclusions
The dominant elements of homelessness that are shared irrespective of the geographical location are: male sex, single living, poverty, and various addictions along with their consequences. Addictions develop particularly easily and are particularly highly prevalent in the group of people with the lowest qualifications and intellect. Secondarily to or independently of addictions, we find psychiatric disorders, amongst which depressive disorders and cognitive deficits come to the forefront. Depressive disorders (further) exacerbate the addictions and the intellectual deficits. Personality disorders seem to contribute to the triggering of the cascade of events that leads to homelessness. Other commonly reported elements of this phenomenon, such as racial differences, differences in the nutritional status, differences in the incidence of tuberculosis etc., are most likely a result of local background and/or are secondary to a specific lifestyle. We believe that the associations described above are responsible for the complex interpretation of the causes of homelessness,
which are independent of the geographic and cultural settings and which are a shared feature of the homeless worldwide. Homeless people, however, are not a different species. They are a derivate of societies on the margins of which these people live. They are therefore different in the geographical sense, but in a given area they change with time similarly to the population of ‘normal’ people inhabiting that area, and studies of the homeless populations resemble looking at a portrait (a portrait of the general population) in a distorting mirror.

CONFLICT OF INTEREST
Not declared.

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