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SELF-PERCEIVED HEALTH PROBLEMS AND UNMET CARE NEEDS OF HOMELESS PEOPLE IN THE NETHERLANDS: THE NEED FOR PRO-ACTIVE INTEGRATED CARE

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ABSTRACT

Introduction

Homeless people suffer from bad health and encounter barriers in accessing services, and live in difficult social circumstances. However, no insight exists in how homeless people in the Netherlands themselves experience their health and unmet care needs in relation to their social

circumstances. In order to tailor medical and other services to their needs, this study aims to gain insight into the self-perceived health problems, and unmet care needs in relation to the social circumstances of homeless people in the Netherlands.

Methods

For this quantitative descriptive study, structured individual interviews were conducted with an aselect group of 157 homeless persons in the Netherlands in June and July 2017. Questions related to demographics, perceived health problems, social circumstances and problems, unmet care needs, and experiences with service providers. Descriptive statistical analyses were performed using SPSS.

Results

About one third of all participants did not report their health problems spontaneously. Social problems were most frequently mentioned: 69% of the participants reported problematic financial debts and about half of them (47% of 69%) said this negatively influenced their health, 57% often felt loneliness and in about half of them (54% of 57%) this loneliness influenced their health and 57% of the participants were feeling sad or depressed. Unmet care needs were frequently reported. Nearly 20% of the participants did not have health insurance and 20% were not registered with a GP, despite wanting to be registered. Barriers in healthcare access were also related to their social circumstances, in particular to lack of money and health insurance, organizational bureaucracy and lack of practical help.

Conclusion

Homeless people, in big and smaller cities alike, experience bad health and unmet care needs, that are strongly related to their unfavourable social situation, especially financial stress and loneliness. Given the importance of these social determinants of health, healthcare for the homeless should be integrated with social care and support. As many homeless people do not mention their health problems spontaneously and face many barriers accessing healthcare and other services, this care should be outreaching and pro-active, systematically targeting physical, mental as well as social problems. This asks for a stronger collaboration between primary healthcare (general practitioners/ street doctors and nurses) and social care services.

Keywords

Homelessness, self perceived health, access to health care, unmet care needs, street doctors

SAMENVATTING

De populatie dak- en thuislozen is in de afgelopen jaren toegenomen. Dak- en thuislozen hebben een slechtere gezondheid, meer sociale problemen en een minder goede toegang tot gezondheidszorg. Echter is onbekend hoe dak- en thuislozen dit zelf ervaren. In dit onderzoek is onderzocht welke gezondheids- en sociale problemen dak- en thuislozen zelf aangeven, hun zorgbehoeften en de problemen die zij ervaren in de toegang tot zorg.

In dit onderzoek zijn individuele interviews afgenomen bij 157 dak- en thuislozen in verschillende steden in Nederland in juni en juli 2017. Beschrijvende statistische analyses zijn gedaan met behulp van SPSS.

Opvallend is dat een derde van de dak- en thuislozen de gezondheidsklachten niet spontaan aangeeft. De meest genoemde problemen bestonden uit sociale problematiek: 69% had schulden, 57% voelde zich vaak eenzaam en 57% voelde zich somber. Verder had 20% van de ondervraagden geen zorgverzekering en was 20% niet ingeschreven bij een huisarts, maar wilde wel een huisarts. De belangrijkste aangegeven barrières in de gezondheidszorg waren gerelateerd aan hun sociale problematiek: geen geld of zorgverzekering, bureaucratie binnen gezondheidszorginstellingen, en gebrek aan praktische hulp.

Aangezien veel dak- en thuislozen niet spontaan hun klachten noemen en veel barrières ervaren worden in de toegang tot de gezondheidszorg is het belangrijk dat deze mensen pro-actief worden benaderd en dat systematisch de fysieke, psychische en sociale problematiek in kaart wordt gebracht om de zorg hierop af te kunnen stemmen. Hierbij is een goede samenwerking tussen de eerstelijnszorg (huisartsen/straatdokters en verpleegkundigen) en sociale zorg belangrijk.

Trefwoorden

Dakloosheid, subjectief ervaren gezondheid, toegankelijkheid gezondheidszorg, zorgbehoeften, straatdokter

What is already known about this topic

- The homeless population in the Netherlands has increased in recent years.
- Homeless people in general suffer from bad health and encounter barriers to accessing services.

What this paper adds

- About one third of the homeless people do not mention their health problems spontaneously. There are no significant differences between the nature of health problems between big and small cities.
- Homeless people experience a strong connection between health and social problems, especially financial stress and loneliness, that reinforce each other.
- Pro-active integrated care with a strong collaboration between primary healthcare (general practitioners/street doctors and nurses) and social care services in all cities with services for the homeless could help lowering the barriers to accessing and maintaining goal-oriented support.

INTRODUCTION

In the Netherlands (pop. 17.1 million), over the last few years, the homeless population has grown from an estimated 17,800 in 2009 up to 39,300 in 2018 (Dutch Bureau of Statistics), and is defined by living conditions: people who sleep in a homeless shelter, at a family member's or friend's house without the possibility of staying there for a long time, or in the streets (Coumans, Cruyff, Van der Heijden, Wolf, & Schmeets, 2017). Compared to the general population, homeless people suffer more often from addictions, physical and mental health problems and intellectual disability, and the all-cause standardised mortality ratio is nearly twelve times higher for females and nearly eight times for males (Aldridge et al., 2018; Fazel, Geddes, & Kushel, 2014; Van Straaten et al., 2014). A small percentage of the homeless people, only 9% in 2016, have a job. Homeless people live in unfavourable social circumstances, besides the lack of a place to live. The majority of them (80% in 2016) live on social security (Coumans, Arts, Reep, & Schmeets, 2018) and have debts. The most important debts are those for healthcare premiums, rent and outstanding fines (Beers, Van Brunschot, & Riemeijer, 2017). Financial problems lead to a focus on debts, so the attention for other problems like health and social contacts become less (Mullainathan & Shafir, 2013). Social determinants in general are known to be important factors that influence health (Dahlgren & Whitehead, 1991). As for instance, health problems are often related to social problems such as financial worries or loneliness are known to increase the risk of

health problems like diabetes, cardiovascular diseases or depression (Mendenhall, Kohrt, Norris, Ndetei, & Prabhakaran, 2017).

In order to provide adequate healthcare services for homeless people, these social determinants should be taken into account, besides the individual's perception of health, health problems and care needs, as well as system factors that might create a gap between care needs and care provision (Mills, Burton, & Matheson, 2015; O'Toole, Johnson, Redihan, Borgia, & Rose, 2015). Previous studies among homeless people in the Netherlands focused only on their medical problems, and were mainly situated in the four biggest Dutch cities (Amsterdam, Rotterdam, The Hague and Utrecht). In 2011, 87% of a cohort of 512 homeless people in the four biggest Dutch cities, who were asked about their health reported health problems in the previous month, and nearly one in five reported unmet care needs for these health problems (Van Straaten et al., 2012). No insight exists into the experiences of the homeless regarding the relation between social circumstances or problems, and health and access to healthcare. To meet their physical health care needs, homeless people must be able to obtain health insurance and find their way to access the healthcare system. However, homeless people often face problems paying the mandatory health insurance fee, thereby leaving them uninsured. Apart from financial barriers, they also face organizational and emotional barriers in accessing healthcare services. They avoid mainstream healthcare services, owing to subsistence priorities, fear, shame, lack of money for transportation and medication, and discrimination by healthcare staff (Mills et al., 2015; O'Toole et al., 2015).

The Netherlands has an universal obligatory health insurance system that covers basic primary healthcare costs, specialist and nursing care, with an option for additional insurance for a.o. dental care. The general practitioner (GP) is gatekeeper to the system and a formal referral from the GP is required for specialist care. All citizens have a responsibility to pay for this health insurance and to be registered with a GP. On top of the health insurance fee of approximately 100 euros per month, citizens have to pay a deductible excess to the health insurance company, for all care except GP, midwife or emergencies. In 2017 and 2018 the annual deductible excess was 385 euros.

The Dutch government has appointed 43 so called centre cities to provide shelter and social services for homeless people. However, in only 27 of these 43 cities (67%) are healthcare professionals available at shelters for the homeless, in eight other cities arrangements with GPs are made, but in nineteen cities homeless people with health problems are being referred to a GP without specific arrangements between shelter staff and the GP (Van Daalen, Kromwijk, van den Muijsenbergh, van Laere, & Sassen, 2018).

Over the last few decades, in high-income countries, in order to lower the barriers to healthcare, so called street doctors and street nurses have emerged, reaching out to provide primary care for homeless people (www.streetmedicine.org) (Van Laere & Withers, 2008, Withers, 2011). In the Netherlands, since 2014, GP/street doctors, public health physicians, nurse practitionars/ street nurses are united in the Netherlands Streetdoctors Group (NSG) to share knowledge and experiences and to collectively contribute to the access and quality of social and medical care for homeless people (www.straatdokter.nl).

However, it is still unclear to what extent these street doctors services are visited by homeless people nor how primary care services should be designed in order to be accessible, acceptable and of good quality, and addressing medical as well as social care needs (Van Daalen et al., 2018). Furthermore, it is unknown if homeless people in smaller cities suffer from comparable health problems as those in the four major cities. The only studies on this matter available in the Netherlands are from the four major cities. Therefore, this study aims to acquire insight into the self-perceived health problems and unmet care needs of homeless people in relation to their social problems, with specific attention to the role of street doctors/general practitioners and barriers that homeless people experience in accessing the Dutch health and social care services.

METHODS

Study sample and recruitment

This is a descriptive quantitative study. In June and July 2017, structured individual face-to-face interviews were held among a random sample of homeless people in twelve (four big) cities across the Netherlands: Amsterdam, Zwolle, Den Bosch, Oss, the Hague, Eindhoven, Groningen, Hilversum, Nijmegen, Rotterdam, Tilburg and Utrecht. In order to be included participants had to be 18 years or older and understand the spoken Dutch or English language. Recruitment took place through the help of local shelter staff and the NSG network of street doctors and street nurses across the Netherlands. Homeless people who visited the shelter or street doctor and/ or street nurse were provided with information about the study, giving them time to consider participation. If they consented, they were approached by one of the interviewers, who further explained the nature of the study. Participants received five euros for their participation. People who did not want to participate were not asked for their reason.

Data collection

A structured questionnaire was developed specifically for this study, based on the literature and the expert opinion of experienced street doctors and nurses, mental health street nurse and social workers. Two street doctors (IvL and MvdM) and one social worker (WvG) were part of the research team and co-author of this article. The questionnaire contained questions about demographic characteristics, health problems, social circumstances, usage of and experiences with health and social care services, in particular with the GP and street doctors/nurses.

The sleeping place was defined as the place they had slept most of the time over the previous month. Ethnicity was defined based on country of birth, independent of the time they had lived in that country. Problems were assessed using the questions 'Were you ill last year or did you have health problems?', 'Do you have health problems at this moment?' and 'Do you have any other problems?'. When participants did not give any more answers to these open questions, a list of health and social problems that are highly prevalent among homeless (Van Laere, 2009) was systematically presented. The answers given on the open ended questions were coded as spontaneous answers. They were compared with the data from the list of health and social problems (closed questions).

If participants were suffering from health or social problems at the moment of the interview, they were asked if they received or needed help. Participants were asked if they had experienced any problems in receiving care.

One medical and two social work students, conducted the interviews that lasted 20–30 minutes each. These students were trained in communicating with different kind of patients and clients. They each conducted a pilot interview, receiving feed-back of their supervisors, before interviewing the study population. Their mutual understanding of questions and answers was regularly checked among the interviewers and supervisors.

Data processing and statistical analysis

Comparisons of demographics and self-perceived health in our study data from the general Dutch population were obtained from Statistics Netherlands (http://statline.cbs.nl). Descriptive statistics on demographic characteristics, health problems, usage of and experiences with healthcare were performed using SPSS 22.0. Age, sleeping place, country of birth, level of education,

spontaneously-mentioned health and social problems, reasons for not being registered or not visiting a general practitioner and problems with healthcare were grouped in various categories. Frequencies and means were calculated to describe the study population. The relation between not having health insurance and not having a postal address was investigated by calculating the relative risk. To determine the differences between big and small cities, independent samples t-test were used. The researchers paraphrased together the barriers to accessing healthcare.

RESULTS

A total of 157 people were interviewed in twelve cities, see Figure 1. In each city one or two persons refused to participate. Most of the interviews took place in a shelter (95%), church (3%) or locations where social and/or healthcare services were provided.

Demographic characteristics

The majority of the participants were male (89%), born in the Netherlands (62%) and the mean age was 44 years (see Table 1). The educational level was low compared to the general Dutch population; half had not completed secondary education. Two thirds (67%) slept in a shelter and nearly one in five (18%) had some kind of (temporary) accommodation or room, but had recently lived on the streets. Their social support networks were limited to homeless peers, shelter staff, social workers and healthcare workers. Not having a postal address was associated with not having a health insurance; RR 4.4 (95% CI: 2.4–8.0). The majority reported having contact with family, though 20% reported having no contact with their children.

Self-perceived health problems

Five percent of participants perceived their health as being very poor, 14% as being quite poor, while 27% estimated their health as being moderate. For the general Dutch population these figures were 0.8%, 4.9% and 17.1%, respectively (Statistics Netherlands/RIVM, data were analysed for the same age group 18-73 years). Of the participants, 60% spontaneously mentioned having health problems. Using the list of known highly prevalent social and health problems in homeless populations, 94% reported at least one problem, with a mean of four problems per person (Table 2). At the time of the interview the top three reported problems related to social problems were: 69% of the participants reported problematic financial debts and about half of

City and number of inhabitants (x 1000) (11)	Absolute number of participants (percentage)	
1) Groningen (202,125)	9	(6%)
2) Zwolle (125,741)	7	(5%)
3) Amsterdam (848,498)	23	(15%)
4) Hilversum (89,224)	16	(10%)
5) Utrecht (344,640)	24	(15%)
6) Den Haag (527,131)	18	(12%)
7) Rotterdam (635,110)	16	(10%)
8) Nijmegen (174,729)	9	(6%)
9) Oss (90,642)	6	(4%)
10) Den Bosch (152,728)	7	(5%)
11) Tilburg (214,188)	11	(7%)
12) Eindhoven (227,173)	11	(7%)

Figure 1: Number of homeless people recruited per city in the Netherlands.

Table 1: Demographic characteristics of 157 homeless people in twelve cities in the Netherlands.

	Number of participants (percentage)	Dutch population (percentage)*
Gender		
– Man	139 (89%)	8,475,102 (50%)
– Woman	18 (12%)	8,606,405 (50%)
Mean age (range) in years	44 (18–73)	42
Country of origin		
– The Netherlands	97 (62%)	15,080,332 (88%)
– Other European country	18 (12%)	842,547 (5%)
– Outside Europe	42 (27%)	1,158,628 (7%)
Level of education with diploma		
– Higher professional education/ university	20 (13%)	4,044,000# (29%)
– Secondary vocational education	59 (38%)	4,163,000 (29%)
– Secondary school (high school)	58 (37%)	4,260,000 (30%)
– Primary school	16 (10%)	1,451,000 (10%)
– No school	4 (3%)	
Sleeping place		
– Outside/street/squat	17 (11%)	
– Emergency shelter	105 (67%)	
– Family/friends	6 (4%)	
– Own room/accommodation/hostel	29 (18%)	
Postal address	137 (87%)	
Health insurance	129 (82%)	98% in 2016**
Social network (multiple options >100%)		
– Has a partner	24 (16%)	
– Has children and contact with them	46 (30%)	
– Has children, but no contact with them	30 (20%)	
– Has contact with his/her family	103 (67%)	98% in 2016
– Has friends	113 (74%)	97% in 2016

Table 1: Continued

	Number of participants (percentage)	Dutch population (percentage)*
– Has a (voluntary) job	51 (33%)	Unemployment rate of working population 2017: 5%

* Source: Central Bureau of Statistics (CBS), the Netherlands; in 2017 total Dutch population had 17.081.507 citizens; https://opendata.cbs.nl/statline

Education level of total Dutch population age ≥ 15 years; unknown for 207,000 persons.

** In our homeless population 18% had no health insurance. In 2016, among the Dutch citizens 1.8% had no health insurance and/or arrears premium payments for three months or longer. The figures were higher among those on benefits for disability 3.6% and social assistance 10.5%. https://opendata.cbs.nl/statline/#/CBS/nl/dataset/81066ned/table?ts=1528197868663

them (47% of 69%) said that this caused them stress that negatively influenced their health; 57% were feeling sad or depressed (which most participants related to their shelter and street life), and 57% often felt loneliness and this influenced their health in about half of them (54% of 57%).

The most often reported physical problems were respiratory problems (COPD, asthma, coughing, dyspnea) in 52%, dental problems in 43%, musculoskeletal problems (arthritis, fractures and pain in shoulders, back, hip and legs) in 40% and pain in 38%. There were no statistical significant differences in the nature of health problems reported between homeless participants in the four big cities and smaller cities. (p=0.67).

Unmet care needs

For each reported health problem, participants were asked if they received care and if not, whether they wanted it; see Table 3 (third column). An unfulfilled physical care need was most often reported for musculoskeletal, foot, dental, walking, other pain and skin problems in 34-47% of participants. For addictions the majority of the participants (61-83%) did not want care. However,

Table 2: Self-perceived problems and unmet care of 157 homeless people in twelve cities the Netherlands.

Problem	Number of participants reporting this problem (% of total participants)	Care received (% of participants with this problem)	Unmet care need (% of participants with this problem)	No care, no need (% of participants with this problem)
Having problematic debts	109 (69%)	59 (54%)	missing#	missing#
Feeling lonely	89 (57%)	missing#	missing#	missing#
Feeling sad or depressed	89 (57%)**	30 (34%)	25 (28%)	32 (36%)
Respiratory	82 (52%)*	31 (38%)	19 (23%)	31 (38%)
Dental	68 (43%)	36 (53%)	28 (41%)	4 (6%)
Musculo-skeletal	62 (40%)	22 (35%)	29 (47%)	11 (18%)
Pain	59 (38%)	30 (51%)	22 (37%)	7 (12%)
Feet	52 (33%)	20 (38%)	24 (46%)	8 (15%)
Skin	38 (24%)*	20 (53%)	13 (34%)	4 (10%)
Walking	34 (22%)	16 (47%)	14 (41%)	4 (12%)
Afraid/panic attacks	33 (21%)*	15 (45%)	7 (21%)	10 (30%)
Hallucinations	25 (16%)	11 (44%)	7 (17%)	7 (17%)
Heart	24 (15%)**	19 (79%)	2 (8%)	1 (4%)
Diabetes mellitus	15 (10%)	13 (87%)	2 (13%)	-
Other health problems	37 (24%)	27(73%)	7 (19%)	3 (8%)
Tobacco addiction	102 (65%)	5 (5%)	12 (12%)	85 (83%)
Alcohol addiction	29 (19%)*	7 (24%)	2 (7%)	19 (41%)
Drugs addiction	66 (42%)*	14 (21)	11 (17%)	40 (61%)

* Data about need for help missing of 1 person

** Data about need for help missing of 2 persons

As not in all interviews structured questions have been asked about if they received and wanted help for their financial debts and loneliness, these data are lacking.

twelve tobacco smokers, two alcohol users and eleven drug users reported they wanted support to stop their addiction. There were no significant differences in care received nor unmet care needs between the four big cities and the other cities.

Access to healthcare providers

General Practitioner

The majority of the participants had health insurance (82%), and 111 participants said they were registered at a GP (70%). In the four big cities fewer participants were registered at a

GP than in the other cities (63% versus 79%; p=0.000). However, 19% of the participant who were registered never visited the GP, mainly because they said they were never ill (9% of total population), or they visited other health professionals such as a street doctor or street nurse (3% of total population). Of the total population, 20% were not registered at a GP, despite wanted to be registered. The most common reasons were of an administrative nature: the lack of a postal address (11% of the total population), lack of identification card and/or health insurance (4% of the total population); having just arrived in the city (3% of the total population). Other reasons were: visiting a street doctor or nurse (4% of the total population), not feeling ill (3% of the total population), having no faith in doctors and healthcare system (1% of the total population), entry ban to the GP location (1% of the total population).

Street doctors and street nurses

In all cities involved in the research, street doctors and/or street nurses were available, but fewer than half of the participants (47%) had ever visited one of them; 54% in the four big cities and 41% in the other cities. Most of the participants who had not visited the street doctor or street nurse (80%) said that they did not need healthcare or they visited their own GP. Seven participants did not know where and when they could visit a street doctor or street nurse and three participants reported shame, fear or lack of health insurance as a reason not to visit them. Most of the participants who visited a street doctor or street nurse (86%) were referred to them by the shelter staff.

Other services

A majority of the participants (60%) reported they had visited other healthcare services while being homeless: dentist in 34%, addiction care in 22%, psychologist in 19%, psychiatrist in 16%, medical specialist in 11%. However, more than a quarter of the 61 participants who never visited other healthcare services (27%) wanted to do so, but did not owing to lack of money or health insurance (7% of the total population), waiting time, difficulties in making appointments (3% of the total population) and language barriers (1% of the total population).

Barriers in accessing services

In total, sixty participants (38%) experienced problems with accessing social and healthcare services owing to 29 different issues (in total 88 times) that, despite the small numbers, are paraphrased in Table 3 to reflect the varying nature of individual experiences. The most common problem reported by nearly one quarter of participants (23%) was lack of money and/or health insurance as a barrier to accessing dental, mental or non-urgent specialist care or for obtaining

Table 3: Reported problems with accessing and provision of healthcare services.

Reported problems	Total (N=157)	Percentage of all participants mentioning this problem
Access		
Lack of money and/or health insurance.	36	23%
Not able to register at a dentist/psychologist/GP.	10	6%
Waiting time for program enrolment.	5	3%
Being refused addiction care/mental healthcare owing to treatment criteria. Upon refusal, not being offered any other kind of medical care.	4	3%
Not knowing where to ask for help; too many organizations and not one specific contact person.	2	1%
Transport problems.	1	1%
Language barrier.	1	1%
No money for cell phone.	1	1%
Service provision		
Healthcare workers did not have solutions in the long run; no aftercare, not enough help to leave homelessness.	9	6%
Health care workers did not have enough time.	1	1%
Lost confidence in mental healthcare.	1	1%
Addiction care is not tailored to individual needs, e.g. obligated to take creative therapy	1	1%
Obligated to accept unnecessary care.	1	1%
Other problems		
Lack of sleeping place after discharge from general hospital or addiction clinic while still in recovery of illness	4	3%
No possibility to access healthy food	2	1%
Feeling awful owing to not having daily activities	2	1%
Waiting list to access a shelter	1	1%
No place for a break	1	1%
Living in a shelter among active drugs users, when just given up drugs	1	1%
No problems with health care access or provision	97	62%

certain medication e.g. contraceptives. Other reported issues related to the organization and criteria to accessing services, fragmentation of services and lack of practical subsistence support needs.

Discussion

The most striking findings of our study are that nearly all participants (94%) reported health problems which they strongly related to their highly prevalent social problems having debts (69%), feeling sad or depressed (57%), and feeling lonely (57%). The participants felt these social problems worsened their health. However, one third of them did not mention health problems spontaneously. Unmet care needs were frequently reported, especially for physical complaints, as were problems in accessing services. Nearly one fifth (18%) of the participants did not have health insurance, 20% were not registered with a GP, despite wanting to be registered. Major barriers reported were lack of money and health insurance or related to organization of care: trouble with registration, fragmentation of services, rigid programme rules and lack of practical support. 47% had ever visited a street doctor or street nurse. There were no significant differences in nature of health problems between homeless participants in the four big cities and those in the smaller cities.

Comparison with existing literature

This is one of the few studies on the self-perceived health problems and unmet care needs in relation to the social problems of homeless people. The demographic profile of our study population, as well as the reported problems, the unmet care needs and the barriers in accessing services, are in line with previous studies among homeless populations in the Netherlands (Van Laere, 2009; Van Straaten et al., 2012; Van Straaten et al., 2014) and other high-income countries (Aldridge et al., 2018; Argintaru et al., 2013; Fazel et al., 2014).

Our findings illuminate the poor health condition of homeless populations related to their living circumstances and significant barriers in accessing services. Self-perceived health is a well-known indicator for objective health: multiple studies, conducted in various cultures and settings, showed that persons reporting poorer self-rated health suffer a higher risk of subsequent morbidity and mortality (DeSalvo, Fan, McDonell, & Fihn, 2005), also in the Netherlands (Agyemang, Denktas, Bruijnzeels, & Foets, 2006).

In our study population, financial stress, loneliness and sadness were dominant factors negatively influencing the self-perceived health condition. This reflects the strong relationship between persistent social and economic disadvantages and poor health (Mendenhall et al., 2017) – the influence of social determinants of health. Specifically, the often reported debts can be a major source of stress and a barrier to accessing services as well as a way out of homelessness, and should be pro-actively addressed by service providers (Mendenhall et al., 2017; Mullainathan & Shafir, 2013).

Limitations

The strength of this study is that, thanks to the national NSG network of street doctors and street nurses, we had good access to key informants at the locations where homeless people tend to gather. We were able to include a large enough, varied group of homeless people in big and smaller cities across the country. However, selection bias is likely as only homeless people who visited the shelter locations and spoke Dutch of English were invited to participate, leaving out rough sleepers and/or those living in tents or in the streets. It seems probable however that they would suffer even more health and social problems and face even more barriers in accessing healthcare. Some respondents might have had trouble remembering if or what services they had used and reporting their health and social problems. This could have led to over- or underreporting, the latter being more probable as we observed less spontaneously mentioned problems than after using the structured questionnaire.

Two street doctors were part of the research group. This could have led to an emphasis on healthcare issues instead of social problems. However, as also a social worker and two social work students were involved, we tried to balance the attention for health and social problems. Despite these limitations, we believe we were able to capture the voices of this vulnerable population and echo their health problems and unmet care needs.

Policy implications

The best model of care involves an integrated, multidisciplinary approach by a team of social and healthcare professionals knowledgeable about the unique challenges faced by homeless people (Luchenski et al., 2018; Maness & Khan, 2014). In our study health problems and unmet care needs did not differ among the homeless participants in the cities (big and small) across the Netherlands. This implies the need for every city with shelters and social services to lower the barriers to healthcare providers, and/or promote access to street doctors and street nurses at the

shelters. In the Netherlands healthcare and social care are financed and organized within different political and financial systems: healthcare at a central level and social care at the local level. This poses barriers to integration and collaboration of healthcare and social care. Besides, training and culture of healthcare and social care differ, and professionals in one domain are often little aware of the skills, knowledge and way of working in the other domain. Interprofessional teaching could improve future collaboration (Scherpbier-de Haan, 2017).

Despite many health problems reported, many participants in our study were not able or willing to visit a regular GP, but only a bare half had ever visited a street doctor or street nurse, who collaborated closely with shelter staff and relevant services. As many health problems were not reported spontaneously, we recommend that doctors (general practitioners or street doctors) systematically assess the health problems of the homeless patients who visit them. As our study confirms the association between social problems and health, we support the suggestion that healthcare providers should not only focus on physical health, but also on psychosocial problems, thus providing integrated pro-active social-medical care tailored to the needs and goals of the person involved (Argintaru et al., 2013; Fazel et al., 2014; Luchenski et al., 2018; Van Laere, 2009). Participants in our study expressed the importance of this approach as follows: 'I miss a specific person, who asks: What do you want? What can I do for you? How are we going to arrange these things?' This implies the importance of a health care provider who pays (unsolicited) attention to the many medical and social problems of the homeless person and makes a plan which helps the homeless person to improve his/her situation. This can be a cooperation of social workers and general practitioners/nurses with knowledge of the situation of homeless people. Political support, integrated financial and organization systems and motivated doctors, nurses and social workers are essential to organize such care.

Recommendations for further research

In this study we explored the health problems, care needs and experiences of homeless people from the perspective of the homeless people themselves. In order to get a complete picture of the gap between unmet care and care provision, the experiences of care providers as well as the morbidity presented to street doctors and street nurses should be investigated. Together with information on the organization of care, a plan can be made to improve access, acceptability and quality of medical and social care that benefits homeless people (Fazel et al., 2014; Luchenski et al., 2018; Mills et al., 2015; Van Laere, 2009).

CONCLUSION

Homeless people, in big and smaller cities alike, experience bad health and unmet care needs, that are strongly related to their unfavourable social situation, especially financial stress and loneliness. Given the importance of these social determinants of health, healthcare for the homeless should be integrated with social care and support. As many homeless people do not report their problems spontaneously and face many barriers accessing healthcare and other services, this care should be outreaching and pro-active, systematically targeting physical, mental as well as social problems. This implies a stronger collaboration between primary healthcare (general practitioners/street doctors and nurses) and social care services.

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Ethics statement

The study was approved by the Medical Review Ethics Committee region Arnhem-Nijmegen, the Netherlands (Registration number 2017-3320, issued 14 June 2017). Prior to the interview, participants were informed about the study, voluntary participation and anonymity of their data. They were asked to sign an informed consent form.

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