

Sleep Loss in the Homeless— An Additional Factor of Precariousness: Survey in a Group of Homeless People

Sleep is a key component of good health.¹ Sleeping less than 6 hours per night is associated with increased risk of obesity, type 2 diabetes, cardiovascular disease, depression, anxiety, pain, and accidents.² Being homeless makes sleep particularly difficult. Homeless facilities



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are often closed at night, and homeless people face inclement weather, darkness, and fear for their personal security. Owing to limited resources, many facilities limit the number of nights per individual. Thus, many homeless persons have no regular access to a safe and warm bed at night.

Methods | This survey was approved by both the CNIS (Conseil national de l'information statistique) and the French National Institute for Demographic Studies (INED) ethics committee. Participants who agreed to participate were informed by interviewers at the moment of the survey, but written informed consent was not required by the committees for this epidemiological survey. To better characterize this problem, we collected information on sleep from a health survey conducted by the French National Institute on Statistics and Economic Studies and the INED.³ We surveyed 3741 persons who met the definition of homeless (attending sites that offer free meals, associated with social and medical assistance services, and in French cities with more than 20 000 inhabitants). After excluding 288 incomplete questionnaires, we analyzed responses from 3453 individuals; 2068 men and 1385 women, with a mean age of 39.8 years. At the time of the survey, 197 respondents were living on the street, 447 were in collective short-term shelters (housing for <1 week), 1320 in collective long-term shelters (housing for >1 month), 240 in small social services paid hotels, and 1249 in individual facilities (1 or 2 bedrooms for homeless persons with children).

The questionnaire asked about total sleep time at night and over the 24 hours prior to the interview; insomnia defined by the *International Classification of Sleep Disorders, Third Edition*; whether drugs or alcohol were used to promote sleep, and whether the participant experienced frequent daytime fatigue. We compared homeless persons to age-, sex-, and location-matched controls enrolled in the 2010 National Health Barometer, a large representative survey of the French adult population that asked similar questions on sleep.³

Results | Homeless persons reported significantly shorter total sleep time than the general population (6 hours 31 minutes vs 7 hours 9 minutes) (**Table**). Among the homeless, 8% reported less than 4 hours of total sleep time over the past 24 hours compared with 3% of the general population; homeless women were twice as likely as men to report that they slept less than 4 hours. Insomnia was reported by 41% of homeless individuals compared with 19% of controls. Daytime sleep

Table. Total Sleep Time, Complaints of Insomnia, and Use of Hypnotic Agents in 3453 Homeless Persons Compared With 3453 Controls^a

Characteristic	All Homeless	Shelterless	Type of Shelter		Small Hotel Rooms	Individual Rooms in Long-term Shelters	Control Group	P Value ^b
			Short-term	Long-term				
Individuals, No.	3453	197	447	1320	240	1249	3453	
Total sleep time, minutes, mean (SD)	417 (7)	370 (25)	447 (28)	421 (6)	401 (11)	420 (13)	NA	
Night	391	340	423	390	371	404	429	<.001
Sleep per 24 h, h								
<4	8	22	8	8	6	5	3	<.001
4-5	8	8	8	7	5	10	4	.006
5-6	12	16	7	11	18	10	11	.32
6-7	17	16	17	16	22	17	23	.003
7-8	16	11	14	18	15	17	31	<.001
8-9	17	12	14	17	16	20	18	.62
9-10	8	3	10	9	8	7	6	.002
≥10	13	11	21	13	9	13	2	<.001
Experience insomnia, No.	41	45	38	42	37	42	19	<.001
Use of hypnotic agents, No.	25	15	20	31	15	28	15	<.001
Experience daytime fatigue, No.	33	38	39	30	36	32	15	<.001

^a Age-, sex-, and location-matched persons in the general French population.^b Comparison between homeless individuals and controls.

duration averaged only 30 minutes per day, yet 33% of homeless persons complained of daytime fatigue compared with 15% of the general population. Among the homeless persons, 25% reported that they regularly took a drug to help them sleep vs 15% of controls.

Discussion | Our survey shows that in France, homeless people sleep less and are more likely to have insomnia and daytime fatigue than persons in the general population. Sleep is important for good health^{1,2} and necessary to the ability to work and successfully perform daily activities. Improving the quality and duration of sleep in the homeless may, therefore, improve alertness, health, and the ability to face daily tasks.

We believe that improving sleep deserves more attention in this vulnerable group. We strongly support strategies other than hypnotic agents to improve sleep in the homeless, including more careful control of noise, lighting, heating, and air conditioning at night. Facilities could provide residents with sleep aids, such as earplugs, eye sleep masks, and pillows. Screens between beds could offer some sense of privacy, even in collective dormitories, and addressing issues of personal security should promote better sleep. Ideally, housing facilities would provide individual rooms, but collective shelters might be better organized with specific architecture and schedules to promote sleep.⁴

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Editor's Note**Sleeping on the Street**

It seems that we increasingly walk by homeless people sleeping—or trying to sleep—on a cold sidewalk near the warmth of a heating vent. Even for those who secure a place in a shelter, it can be difficult to sleep in an unfamiliar, often crowded, and sometimes insecure place. Perhaps it's obvious that homeless people are more likely to have difficulty sleeping than people who sleep in their own homes. But given the importance of sleep for good physical and mental health, we think the work of Léger et al¹ in this issue of *JAMA Internal Medicine* in quantifying the prevalence of sleep problems in the homeless is important, and lays groundwork to start to address this problem. We recognize that the homeless population and homeless services are different in France than in the United States, but we believe that the magnitude of the problem of poor sleep is likely similar in homeless persons everywhere.

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1. Léger D, Beck F, Richard JB. Sleep loss in the homeless—an additional factor of precariousness: survey in a group of homeless people [published online December 27, 2016]. *JAMA Intern Med*. doi:10.1001/jamainternmed.2016.7827