### editorial

# Let's not close our eyes to the importance of sleep

Floor Kroese Utrecht University Konstadina Griva National University of Singapore Behavior is an important determinant of people's health. Next to factors such as genetics, medical care and the environment, behavior is thought

to account for 40% of deaths in the Western world (e.g., Mokdad, Marks, Stroup, & Gerberding, 2004). Not without reason, much of health psychology research has focused on understanding the determinants and consequences of health behaviors such as physical exercise, healthy eating, medication adherence, smoking, and drinking alcohol, and on developing interventions to promote a healthy lifestyle.

Notwithstanding the relevant and sometimes intriguing insights gained from these studies, one surprising omission from the list of behaviors frequently studied by health psychologists seems to be sleeping behavior. This is surprising because evidence from both epidemiological and lab research uniformly attests to the importance of good sleep in terms of physical and psychological well-being. For example, a chronic lack of sleep can contribute to serious health problems such as hypertension, obesity, diabetes, and depression (e.g., Strine & Chapman, 2005; Gangwisch et al., 2006; Roane & Taylor, 2008). Considering that 40-50% of people in the general population report getting insufficient sleep at least two days a week (e.g., Kroese, Evers, Adriaanse, & de Ridder, 2014; Jones, 2013), the relevance of sleep as a health behavior becomes undeniably clear.

However, sleep has hardly been studied in the context of health psychology as a behavioral determinant of health. Instead, sleep has mainly been the domain of specialized sleep researchers where most studies seem to have been concerned with biological paradigms and particular populations of interest in this domain (e.g., sleep disorder patients, infants, night shift workers). This work has taught us a lot on the biological underpinnings of sleep as well as the physical and psychological consequences of sleep deprivation. Yet, more input is needed from behavioral scientists and health psychologists to complement existing work and paradigms integrating biological, emotional, social and behavioral aspects of sleep.

First of all, health psychologists should pay more attention to sleeping problems in the (patient) populations we study. Using what is known about the consequences of a lack of sleep, the well-documented co-occurrences and of insufficient sleep and cardiovascular or metabolic diseases for example, it is important not to neglect sleeping behavior when investigating 'lifestyle issues' in various groups. Noteworthy steps in this regard have recently been taken for example by Liu and colleagues (2013) who documented the relationship between insufficient sleep, obesity and chronic diseases, or Harrison and colleagues (2016) who studied the possible interactions between sleep disturbances and pain severity in chronic pain patients.

Second, it would be interesting to shed further light on the behavioral aspects of getting (in)sufficient sleep, particularly in the general population. For example, recent work has provided initial suggestions that sleeping, like many other health behaviors, can be associated with selfregulation skills. That is, recent findings illustrated that similar to healthy eating, exercising, and drinking, self-control is associated with the number of hours of sleep people get as well as their experienced fatigue during the day (Kroese et al., 2014), and that low self-regulation skills are associated with poorer sleep hygiene practices (Todd & Mullan, 2013). Moreover, typical selfregulation interventions that have been applied many times to other (health) behaviors (e.g., mental imagery) have met with initial success in the domain of sleeping behavior as well (Loft & Cameron, 2013). These emerging insights suggest that it would be worthwhile to further apply the knowledge health psychologists gained on selfregulation and behavior change techniques to the area of sleep.

Finally, an interesting avenue for further research would be to also further scrutinize the relationship between sleep and self-regulation in the opposite direction. As it is well-known that insufficient sleep leads to decrements in task performance and inhibitory control, it should not be surprising that sleep deprived individuals are considered to be at increased risk to succumbing to impulsive desires (e.g., Pilcher, Morris, Donnelly, & Feigl, 2015). That is, they might make poorer dietary decisions or perform more risky behaviors in the areas of sexual relations or drinking alcohol. Hence, this is another important way in which a lack of sleep may interact with the processes and outcomes we typically study.

The contributions in this special issue all serve to illustrate why it is important for health psychologists to study sleep and how it may share relevant characteristics with other health behaviors we typically have been interested in. First, Griva and colleagues discuss the prevalence of various sleeping problems in a sample of diabetes patients and highlight the large number of patients deprivation and excessive experiencing sleep daytime sleepiness. The second paper, by Peter, Cunnington, and Greenwood. discusses the potential of psychological interventions for various sleep disorders. The following two papers address

the mutual relation between (a lack of) sleep and self-regulation. Nauts and colleagues describe a study showing how a lack of sleep may result from the self-regulatory dilemma people experience when they know they should go to bed but do not like to get off the couch to start their bedtime routines. On the other hand, Benjamins discusses how a lack of sleep may both directly and indirectly affect self-regulatory performance in the domain of eating behavior. Finally, the special issue includes an interview with renowned sleep researcher Dr. Helen Burgess from Rush University who provides some interesting suggestions for future research and practical recommendations for those planning to study sleep.

Altogether, we hope the contributions in this special issue on Sleep will be an inspiration for health psychology researchers and we are looking forward to seeing more sleep-related studies in upcoming EHPS conferences and in our journals.

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volume 18 issue 2