

*Counting Sleep? Critical reflections on a UK national sleep strategy.*

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**Abstract**

The United Kingdom Government are planning to issue guidance on sleep duration. Whilst sleep is clearly important for health, offering such guidance is not the answer. Within this commentary we put forward three arguments to support this claim: (i) sleep is liminal and beyond the limits of voluntary agency; (ii) sleep is linked to structural inequality; and (iii) sleep is multiple. The first two points are now well established. However, the third encourages a considerable break from established thinking. Recent research has highlighted that we need to move away from viewing sleep as a singular, objectively defined phenomenon, and instead position it as many different practices woven together. Sleep is situated, contingent and is enacted in multiple ways. Public health would be better served by a ground-up approach which explores good and poor sleep across these three axes: liminality, social position and ontology.

**Keywords:** sleep, public health, liminality, ontology

## Introduction

The United Kingdom Government are “planning to issue guidance on how much sleep people should be getting every night” (BBC News, 2019) According to a Department of Health & Social Care (2019) Green paper, the Government will review the evidence on sleep and health with the view to informing the case for age-appropriate guidance on hours of sleep. This resonates with calls from the UK Royal Society for Public Health, for a *slumber number* to be published which makes it easier for individuals to know how much they should be sleeping (Royal Society for Public Health, 2018). The United States National Sleep Foundation has also recently issued age-specific sleep duration recommendations (Hirshkowitz et al., 2015).

Sleep is clearly important for health and there is overwhelming evidence that “sleep deprivation is associated with a variety of chronic conditions and health outcomes, detectable across the entire lifespan, from childhood to adulthood to older age” (Cappuccio et al., 2018, p. 3). Poor sleep, in terms of deprivation and disorder, is associated with increased morbidity and mortality and can lead to weight gain and obesity, diabetes, cardiovascular disease, neurocognitive dysfunction, stress and pain (Grandner, 2017). Insufficient sleep is also said to increase the risk of accidents (Horne & Reyner, 1999) and decrease self-control (Christian et al., 2011).

However, offering guidance on how much we should sleep is not the answer to the current problem of sleep. Within this commentary we put forward three arguments to support our critical claim: (i) sleep is liminal and beyond the limits of voluntary agency (ii) sleep is linked to social position; and (iii) sleep is multiple. The first two arguments are well established and relate to the problems that come from individualising sleep. The final argument offers a novel contribution to the debate. Considerable research is now being carried out on sleep across a wide range of disciplines; including neurology, sociology, clinical medicine and psychology. Devices that allow for self-measurement of sleep have transformed the landscape of expertise, allowing individuals to research and articulate their own sleep. Yet, all this work is operating in silos and generating new ambiguities and competing notions of what sleep is. Tensions and debates currently centre on whose *a priori* notion of sleep is correct. However, recent research has argued that sleep is an “uncertain, provisional set of activities variously connected yet recognized as sleep” (Nettleton et al., 2017, p. 785) and is many different things brought into being through practice (Meadows, 2016). We argue that there is a need to complicate sleep and recognise that it may comprise “a coexistence of multiple entities with the same name” (Mol, 2002, p. 151). When these three arguments are taken together, it points towards public health being better served by a ground-up approach that recognises competing voices and multiple ontologies of sleep (cf. Drake & Whitley, 2015).

### Sleep is liminal

As Hale and Hale highlight, the decisions which characterize sleep are different from other health behaviours (2009, p. 361). Sleep is a liminal state in at least two ways (Williams, 2005). First, it is neither an entirely voluntary or involuntary act. Sleep cannot be directly willed and, conversely, no matter how much we fight against it, we must sleep sooner or later. Whilst we may enact waking practices to help us sleep – such as bedtime routines and rituals - sleep highlights the limits to our agency (Williams & Crossley, 2008).

Second, sleep exists somewhere between consciousness and unconsciousness (Leder, 1990); a recessive mode of embodiment involving a partial withdrawal from the world (Williams & Crossley, 2008). As such we cannot directly audit our own sleep and sleep quality/quantity are inferred rather than directly experienced (Williams, 2005). This lack of direct experience also means that we cannot value sleep for its own sake. Suggesting you like the experience of sleep invokes a *performative contradiction* “any sort of value that sleep may have is therefore value that it has by virtue of its restorative function (as Aristotle suggests) or by virtue of what it enables us to do in wake time” (Hale & Hale, 2009, p. 362). This resonates with sociological research which suggests that men engage with sleep via a *function/non-function* balancing act and believe that you should get just enough sleep to be able to function (especially in paid employment), but not so much that it reduces the time you have awake to perform work roles and other valued activities (Meadows et al., 2008; see also Coveney, 2014). Recent clinical studies have also suggested that sleep quality judgements are influenced by activities upon waking and the day after (Ramlee et al., 2017).

### **Sleep is linked to social position**

It is not only *judgements* about sleep that are linked to waking life. How we sleep, when we sleep and where we sleep are all situated and contingent. The strategies women develop to cope with their partners’ snoring, for example, can reflect normative expectations of women being adaptive and passive (Venn 2007).

Moreover, we are said to be in the midst of an epidemic of sleepiness; with one representative survey finding that 58% of respondents reported a sleep problem on one or more nights in the previous week (Groeger et al., 2004). In the United States sleeplessness complaints doubled from 2.7 million in 1993 to 5.7 million by 2007 (Moloney et al., 2011). This epidemic is unevenly distributed. Grandner (2017), for example, highlights how race, ethnicity, culture, employment, neighbourhood, socioeconomic status, marriage and the family environment all impact on an individual’s sleep. Those who are widowed report poorer sleep quality than those who are in marriages where there is little or no relationship distress (Meadows & Arber, 2015). Those not currently in paid employment and those with lower education have higher odds of sleep problems even when other factors are controlled for, such as education and mental and physical health (Arber et al., 2009). Patel et al., (2010) also highlight that whilst poor sleep quality is associated with poverty and ethnicity, factors such as employment, education and health status mediate this effect. However, this mediation can only be seen in poorer individuals.

We need to recognise and discuss *inequalities in sleep* in the same way that we do for inequalities in health more generally. With respect to the latter, the World Health Organization Commission on Determinants of Health (2008) identified numerous dimensions that need to be tackled if we are to reduce inequalities in health. These include full and fair employment, welfare and social protection policies and addressing gender bias in the structures of society (see also Scambler, 2011). Similar discussions need to be had for sleep. Thinking in terms of *inequalities in sleep* makes obvious the need to move away from blaming individuals for poor sleep. Placing emphasis on the social determinants and patterning of sleep would also help buttress the neoliberal responsabilisation agenda which the sleep industries – big pharma, bed manufacturers,

tracking technologies and the like - take advantage of (Williams & Boden, 2004; Barbee et al., 2018).

### **Sleep is multiple**

Sleep is characterised by uncertainty and intense debate. For example, the Royal Society for Public Health (2018) recently warned that modern life leads to under-sleeping, yet others have suggested that we are actually sleeping more than our ancestors (Yetish et al., 2015) and Williams et al., (2010) caution that claims of a sleep-sick society are overblown by the media. How we should treat poor sleep is also contentious. Cognitive Behavioural Therapy for Insomnia is regarded by many sleep experts as the only credible solution to insomnia, the most reported sleep problem (Riemann et al., 2017). However, the NHS website (2019) indicates that sleep problems can normally be resolved through ‘self-help’ strategies; advice which seems somewhat glib given the fact that sleep is patterned according to social structures. These debates about how much sleep we do or do not need and how we should treat sleep, are compounded by the lack of clarity as to how sleep can be measured. For example, the long-established view that sleep is demarcated into ‘stages’ is now viewed with suspicion with Agarwal and Gotman (2001, p. 1695) suggesting these dimensions of sleep are a methodological artefact rather than an accurate reflection of a biological reality (see also Haustein et al., 1986, p. 364).

The current focus is on reducing these complexities down to a single order. Sleep medicine, for example, includes labels such as *false beliefs* (Robbins et al., 2019) and *sleep state misperception* (Crönlein et al., 2019) which can alienate individuals from their own sleep (cf. Lawton, 2003). New sleep-monitoring technologies are treated with suspicion and dismissed as unscientific (Leprince-Ringuet, 2018) as traditional laboratory measures are used to evaluate wearable trackers (Lee et al., 2018) and explore the consequences of “sham sleep feedback” from such devices (Gavriloff et al., 2018, p. 1).

Rather than attempting to reduce these complexities to a single order we need to reimagine sleep as “a coexistence of multiple entities with the same name” (Mol 2002, p. 151). Here we learn from Mol’s study where she demonstrates how a single disease – atherosclerosis - appears as many things in many contexts. For example, a patient information leaflet may describe it as a gradual obstruction of the arteries, for the patient it may be experienced as pain when walking. In the radiography department it may appear as an angiogram and on the operating table it may appear as a thick white paste on the vessel’s interior (Mol, 2002; see also Law, 2009). Applying this approach to dementia, Moser (2011, p. 709) suggests that “different practices act upon and enact dementia in different ways, and that along with this, they shape distinct ways of living and dying with dementia, and create and distribute possibilities differently”. When viewed through this lens, sleep becomes considered as uncertain, provisional and more than one thing.

The idea of *sleep multiple* may appear antithetical to many working within the sleep field. Yet, support for this approach can be seen within clinical sleep literature. For example, as Buysse (2014) identifies, previous attempts to define sleep consider sleep to exist across multiple levels of analysis (self-report, physiological etc.) and across multiple aspects or dimensions (quantity or quality of sleep). Scholars are also asking how we can define sleep health (Buysse, 2014) or sleep quality (Ohayon et al., 2017)

and suggesting that we may need to reconceptualise sleep altogether (Stevner et al., 2019). This is not too far removed from recent sociological work that has suggested that we need to disturb the ontology of sleep and point to the fulsome dimensions of the category (Nettleton et al., 2017). Rather than situate sleep as a singular object, those in recovery from dependence on alcohol and other drugs for example, speak, *inter alia*, of: “anxious sleep” “broken sleep”, “comatose sleep”, “conscious sleep”, “decent sleep”, “deep sleep”, “disturbed sleep”, “dreaming sleep”, “exhausted sleep”, “scared sleep”, “unconscious sleep”, “unnatural sleep” and “unwakeable sleep”. (Nettleton et al., 2017). Older adults also speak of daytime sleep in terms of ‘napping’, “dozing” “cat-napping” (Venn & Arber, 2011). The single word “sleep” does not do justice to the diversity here.

### **Conclusion: a way forward**

At the heart of our commentary are a series of key claims. First, sleep is liminal and cannot be directly experienced. It therefore cannot be valued for its own sake. Second, sleep is patterned according to recognised inequalities. Third, we need to reimagine sleep as more than a single object. Taken on their own, each of these perspectives highlight the problem with issuing top down, blanket, guidance on how long we should sleep for. Given that we cannot directly will, audit or value our sleep, for example, it remains unclear how offering guidance on sleep duration will help. If sleep is ‘multiple’ then we are unlikely to converge on single definitions of sleep for all circumstances and advice to achieve a certain number of hours sleep will remain inherently ambiguous. We are also potentially creating a source of anxiety when the nomothetic is not met.

Yet there is clearly a public health issue here and the link between sleep and health is hard to negate. Reducing structural inequalities should be a priority for governments and public health bodies. Beyond this, if we are to develop a public health response to sleep we need to do this from the ground-up. In their discussion of public mental health, Drake and Whitely (2015) suggest that ground-up approaches may better serve the goals of public health. Such approaches are developed by local stakeholders and communities and prioritise local knowledge, competence and resources. Something similar is needed here. Learning communities, which combine local stakeholders and a range of outside experts, should be used to explore sleep across the three aforementioned axes: liminality/function, social position and ontology. This would involve discussing barriers and facilitators to good sleep – including the role of neighbourhood factors such as noise and levels of violence (Simonelli et al., 2017) – as well as how sleep is known and valued. It would also involve asking how sleep is being defined, operationalised and evidenced within local cultures; how different versions and practices of sleep are relating to each other, what happens when competing or contradictory versions and ways of dealing with sleep come together, how participants make sense of and manage these contradictions. From this sociological evidence base, these learning communities can then discuss and innovate solutions which are relevant to each of the diverse members of a local community. Whilst it is difficult to pre-empt the results of this type of engagement, it is likely that they will further confirm the futility of offering population guidelines on sleep duration.

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