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Regional, cultural, and socioeconomic differences in sleep health: enhancing local representation to increase global relevance

Dear Editor,

We would like to thank Drs. Usman and Nufi for their thoughtful letter to the Editor, commenting on the recent publication "Failing to plan: bedtime planning, bedtime procrastination, and objective sleep in university students" [1]. In this paper, students from the National University of Singapore rarely plan their bedtimes (median < one day a week), and when they did, they often overran these bedtime intentions (average > +40 minutes). Despite the general lack of planning, it was found that days on which a planned bedtime was in place, were associated with earlier and longer sleep. Following these findings, we concluded that a practical first step towards improving sleep might be to start with constructing a deliberate plan for the timing and process of daily bedtimes.

In their letter, Usman and Nufi take a critical stance towards this last suggestion, arguing that in many low- and middle-income countries (LMICs, in their case Indonesia), following a bedtime plan might not be as simple as it may seem. Usman and Nufi cite structural (e.g. densely populated housing), cultural (e.g. collectivistic cultural norms around social participation), and socioeconomic barriers (e.g. part-time employment to support studies) that often make bedtime all but an individual choice. Moreover, public awareness and support structures around sleep health might be much less available in many LMICs. Usman and Nufi conclude by calling for greater awareness of the realities surrounding sleep behavior in LMICs, in order to devise contextualised interventions and recommendations that can be locally effective.

We wholeheartedly agree with the plea to increase the visibility of sleep health issues in LMICs. A recent review by the World Sleep Society Global Sleep Health Taskforce reported that published data on country-specific sleep duration was available for 88 % of (46 out of 59) high-income countries, whereas this was true for only 25–49 % of LMICs [2]. When looking at population-based cohort studies, data was available for only 0–18 % of LMICs. Earlier studies have estimated that up until 2004, 78 % of publications in the field of sleep science originated from Western countries [3]. This paucity reflects the disparity that exists in research funding and infrastructure between countries, as well as differences in health policy priorities. This paucity also creates cultural blind spots for structural and cultural obstacles to good sleep in non-western LMICs and for what solutions could be deemed effective [4].

Another insight that surfaced from Usman and Nufi's letter is that the Asian region is by no means a homogenous sociocultural and economic area. While cross-cultural differences in sleep practices between Western and Asian countries are well-recognised [5–8], cultural differences within the Asian region are much less studied. The rich variety in cultural, religious, and economic factors that are likely to shape the context in which diverse sleep health practices take hold [9,10].

Singapore—the site of the original data collection—and Indonesia are direct geographical neighbours with elements of a shared cultural history, yet they differ markedly in structure and governance. Indonesia is a vast archipelago comprising thousands of islands with a high degree of decentralised health policy, Singapore is a compact city-state with a much smaller, mostly urbanised population and a highly centralised administration. Some of the factors influencing student sleep health may be shared (e.g. pressure to engage in late night social activities), whereas other factors might diverge (e.g. need for employment or housing conditions) [11]. As Usman and Nufi argue, knowledge of these differences is required to effectively contextualise health policy and advice.

Addressing the issue of underrepresentation of many countries in the published literature is not an easy task. We suggest that there are potential avenues to increase visibility and comparability across contexts. First, it is important to enable formal channels for surfacing issues of local relevance to enter the scholarly record. Citability is key for having these ideas noted, adopted, and propagated within the research community. Journals could facilitate this in specific article types (e.g., perspectives, brief reports, practitioner notes, policy commentaries) to lower barriers for contributions that do not fit traditional empirical formats yet are essential for understanding local realities. We commend Sleep Medicine for allowing such narrative to unfold through the Letter to the Editor format.

Still, it is important to make concerted efforts to generate primary data from LMICs. This could potentially be attained through collaborative research. Such collaboration could include co-designing study questions and instruments with local investigators and communities, shared governance over data, fair authorship, and capacity-building for sustained measurement. Co-created tools enhance cultural validity and measurement equivalence, while interoperable standards (metadata, common data elements) enable cross-country synthesis without erasing local nuance. Initiatives by the Asian Society of Sleep Medicine (ASSM) to create a Asian sleep medicine curriculum that is sensitive to such contextual diversity could serve as a model for such collaborative research [12,13].

To conclude, addressing global disparities in sleep health and increasing local representation requires visibility and citability within the research domain. Collaboration and lowering barriers for contribution to academic discourse and knowledge generation could help to enhance awareness and solidarity towards improving sleep health research, practice, and policy [2,14–16].

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