

# Editorial

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## Sleeping and Wellbeing – Interdependent Entities

Sleeping is an enigma in human life and is defined as a reversible disengagement and unresponsiveness to the external environment, regularly alternating in a circadian manner with engagement and responsiveness.<sup>1</sup> We understand the significance of adequate sleep but hitherto, the full function of sleep is not fully elucidated. What transpires during a third of our lifetime is still a paradox, despite the recent dramatic increase in the number of studies related to the specialty.

There is no consensus on a single definition of well-being. It is described as the presence of positive emotions and mood and the absence of negative emotions, satisfaction with life, fulfilment, and positive functioning.<sup>2</sup> The essence is judging life positively or feeling good. Some domains of well-being include physical, economic, social, emotional, and psychological well-being.

Sleep is one of the most important physiological functions of the brain. Brain has significant influence on the function of all systems in the body and brain synchronises all systems in rhythmic functionality in such a way that the body is able to operate seamlessly. Therefore, sleep can affect the overall body functions both explicitly and implicitly.

These are the current facts known about sleep. Almost all animal sleep and to date none has been identified that do not sleep. Sleep requirement in any individual depends on the interaction between the gene and the environment. Specific physiological changes that take place during sleep indicate sleep is a distinct state of its own. The main components of sleep are sleep duration and sleep quality. Sleep duration decreases from infant to older children, stabilise at adolescent, and is constant throughout adulthood. Nonetheless, the required sleep duration is very individualised. Although sleep quality cannot be

measured, it can be ascertained by the refreshing feeling after awaking<sup>3</sup> Sleep duration and sleep quality are to some extent mutually influenced. Current knowledge lacks an acceptable algorithm or clear insight to define the interaction between these two components. Specific brainwave patterns during sleep differentiate the state of sleep from wakefulness, thus enabling to stage the sleep and comprehend its architecture. Various sleep problems will trigger changes in sleep architecture. Events known to happen during sleep such as dreaming appear only during rapid eye movement (REM) sleep. Unfortunately, there is still uncertainty over why we dream, how we dream, and the function of dreams. Currently, human sleep duration is much lower than its predecessors due to various reasons, but we are still unsure of the consequences.

The evidence of morbidity in sleep comes mainly from studies on the effect of sleep deprivation that result in sleep insufficiency. The impact was observed in both children and adults. In children, the effect of sleep insufficiency includes persistent sleepiness or hypersomnolence like sleeping at inappropriate times and places, lethargy and the feeling of persistent tiredness, inability to focus, decreased school performance, poor socialization, hyperactive behaviour and low self-esteem. Besides that, sleep insufficiency could also lead to slow motor response to stimuli, irritability and fussiness, night waking, insomnia, and parasomnia. Those with severe obstructive sleep apnoea can develop right-sided heart failure and hypertension.<sup>3</sup> In adults, the effect generally does not vary so much from children, albeit the consequence of the cardiovascular disease is more profound. In older children and adults, sleep insufficiency is a predisposing factor to some conditions such as type 2 diabetic and hypertension. Obesity, which is currently an epidemic in both adults and children, conflated with sleep exaggerates the negative impact of the other. Sleep

insufficiency cause a decrease in productivity, increases the risk of accident, and affects psychosocial behaviour. The problem has become more apparent with the explosion of screen culture. Screen light affects sleep quality especially when exposure occurs prior to sleeping.<sup>4</sup>

These outcomes of sleep insufficiency have a negative impact in all domains on the person's well-being. A person's negative emotions are enhanced, less satisfaction and fulfilment with life, reduce social functioning, and the loss of ability to judge life positively. This will finally impair the person's quality of life, both health-related and non-health related. Hence, sleep is as essential as nutrition, hygiene, finances, health, sex, and exercise in contributing to the well-being of a person.

Sleep insufficiency is a preventable conundrum and can be treated as it is one's choice on how to sleep or when to sleep. Good sleep practice should be embodied at an early stage of life much like eating habits. The focus is to introduce and promote proper sleep hygiene. Age-related sleep hygiene should be instituted into the child's sleeping habits, and this is mainly the responsibility of the parents. It should be an important learning behaviour and life skill of the child and thus, part of self-discipline. With good insight into the importance of adequate sleep, good sleep practice can be inculcated in a person's life. The workplace environment and work practice should address this and provide adequate sleep duration and quality. Children's physiological needs should be taken into consideration in schools too, as it helps to maximise the learning process

Good sleep is one of the vital elements in a person's life and is a very important requirement for his or her wellbeing. The World Association of Sleep Medicine has recognized this and declared a world sleep day to remind us that sleep is an essential part of human life that should not be taken for granted.

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