The bidirectional relationship between patients' sleep disorders and their spouses' sleep quality

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Sleep has largely been conceptualized as an individual phenomenon, despite the fact that most adults share their beds with their partners at some time in their life. An individual's sleep quality may be affected by his/her spouse's health condition; uncontrolled and severe sleep disorders may have negative impacts on spouses' health and caring burden. For example, Hamamci et al. reported that the Pittsburgh Sleep Quality Index (PSQI) score, which reflects sleep quality, was higher in spouses of people with epilepsy, who had seizures during sleep [1]. Recently, Say et al. reported that sleep quality of spouses of patients with restless legs syndrome (RLS), a sensorimotor disorder that mainly occurs during nocturnal sleep period, was significantly worse compared with healthy volunteers, and that deteriorated sleep quality, insomnia and elevated daytime sleepiness of the spouses were correlated with RLS severity of the patients [2]. In their report, it was also shown that levels of anxiety and depression of the spouses were significantly correlated with their total PSQI score. These findings are in line with a previous study showing that 38% of spouses of patients affected with RLS reported to have difficulty in initiation and/or maintenance of sleep, and that 36% of them had started to sleep in separate beds for this reason [3].

Similar trend has been also reported on REM sleep behavior disorder (RBD) characterized by dream enactment behavior and polysomnographic features of loss of REM atonia [4]. In that report, almost all of RBD patients' spouses reported sleep disturbance coming from nocturnal RBD symptoms of their bedpartners, and two-thirds of them reported a history of being injured during sleep by the patients' dream enactment violent behaviors. Of note, the

spouses of RBD patients reported more impaired quality of life especially in the psychological domain and marital relationship compared with the controls. The authors emphasized the importance of the optimization of RBD treatment, proper diagnosis of the disorder, and management of sleep and mental health aspect of spouses may help to lessen the caring burden.

As for chronic insomnia, it has been inconclusive whether the prevalence rate of the disorder is higher in spouses of affected individuals. However, considering that sleep is a dyadic behavior for most adults and is critically important for health and well-being, several studies have been conducted on the association of insomnia symptom, health status and relationship functioning among bedpartners. Among these, one report has shown that wives' insomnia symptom at the baseline was related to an increased future risk of incident heart disease for husbands but that husbands' insomnia was not related to wives' risk of heart disease [5]. Reportedly, marital relationship has strong impact on the symptoms of insomniacs. For example, those who had lost their spouses/partners in later life were reported to have poorer sleep quality than those who had not [6]. Another study on middle-aged Korean community-dwelling adults also showed that women, economic satisfaction and living with spouses had protective effects against the formation of sleep state misperception [7]. Furthermore, Troxel et al. reported that improvements in marital satisfaction were associated with a 36% decreased risk of insomnia at follow-up in husbands [8].

Despite cognitive behavioral therapy for insomnia (CBT-I) being effective [9] barriers to adherence have been documented. Perceived partner alliance has been shown to influence adherence and treatment outcome across a range of other health conditions. Moreover, bed partners can become powerful agents of social control in terms of promoting adaptive health and sleep-related behaviors, and shared social rhythms between partners can help foster an environment that is conducive to good sleep. Based on these, some

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researchers have tried to establish a model for integrating bed partners into cognitive behavior therapy for CBT-I [10].

Bedpartners' functional status, lower life satisfaction and mental problems strongly relate to both the severity of patients' sleep disorders and personal factors of bedpartners. Given these, timely recognition and appropriate management of sleep and mental health problems of patients with sleep disorders as well as their spouses would be desirable.

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