

## COMMENTARY

## Post-Freudian PTSD: Breath, the Protector of Dreams

Commentary on Ullah et al. Improving PTSD symptoms and preventing progression of subclinical PTSD to an overt disorder by treating comorbid OSA with CPAP. *J Clin Sleep Med*. 2017;13(10):1191–1198.

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Posttraumatic stress disorder (PTSD) is one of the most physiologically dangerous psychiatric disorders because of its strong association with suicide and risk-taking behavior.<sup>1</sup> In today's society PTSD is common, affecting traumatized civilians and with at least 17% of the current veterans of military deployment meeting full symptom criteria for the diagnosis.<sup>2</sup> The many forms of therapy that have proven useful in the short-term treatment of PTSD include: psychotropic medications (antidepressants and anti-anxiety), noradrenergic effective anti-hypertensive medications (prazosin and beta-blockers), classic psychoanalytic insight and group therapies, combined cognitive behavioral therapies, diagnosis-based behavioral therapies (exposure, extinction and Eye Movement Desensitization and Reprocessing [EMDR]), and cognitive therapies (imagery and controlled [lucid] dreaming). Based on symptom alteration, primarily a decrease in nightmare frequency (the most commonly described symptom of PTSD), epistemologically-based reviews indicate that a majority of these therapies have a greater than 80% short-term efficacy.<sup>4–8</sup>

In our field of sleep medicine, research and clinical practice indicate that sleep-disordered breathing (SDB) has a high incidence in PTSD populations. Studies—such as the study by Ullah et al. in this issue of *Journal of Clinical Sleep Medicine*—indicate that in patients with PTSD and SDB, airway control with positive airway pressure (PAP) systems can lower nightmare frequency, improve disordered sleep and questionnaire-assessed PTSD symptoms, and potentially prevent the development of full-blown PTSD. The authors suggest that these encouraging results are secondary to the effects of PAP therapy on chronic sleep deprivation, especially the effects on REM sleep—a logical if unproven postulate. This study suggests that control of the airway with PAP is indicated as part of treatment for the large subset of patients with PTSD and at least a minimal component of SDB.<sup>9</sup>

The pathophysiology of PTSD remains a matter of contention. The diagnosis we call PTSD was once referred to as shell shock—a combat-associated post-concussive phenomenon. Post-concussive neurophysiologic effects are currently being restructured to reflect new understandings. Traumatic brain injury clearly induces SDB in a subset of patients with PTSD.<sup>10</sup> Sigmund Freud suggested that the experience of irreconcilable trauma by a susceptible personality was at the basis of most

psychiatric illness.<sup>11</sup> Today PTSD is the only clearly exogenous psychiatric disorder, an anxiety disorder still generally approached from the perspectives of Freudian psychodynamics. Freud proposed that dreams functioned to protect sleep.<sup>12,13</sup> Failing to do so, PTSD anxiety dreams experienced as nightmares can disrupt sleep and induce disturbed waking.<sup>14</sup> Per this theory, dream-based psychoanalytic therapy had the potential to assist patients in replacing trauma-induced nightmares with sleep-protective dreams. Since alterations in breathing occur with anxiety-associated behaviors (nightmares and panic attacks), some authors have proposed that the experience of trauma induces disordered breathing in those patients who develop symptoms of PTSD.<sup>15</sup> Since in some individuals, apneic events induce arousals, the treatment of these apneas with PAP systems could potentially change distressing nightmares into dreams that do not induce awakenings.<sup>16</sup> This proposal subverts Freud's classic concept of dreams as the protectors of sleep into an alternative construct in which breathing is the protector of dreaming.

Much more work is needed in order to clarify the pathophysiological relationship between SDB and PTSD. In the general sleep laboratory population, it has been demonstrated that reported nightmare frequency declines significantly as the apnea-hypopnea index increases and the sleep time available for dreaming diminishes.<sup>17</sup> As noted, there are many other methods available for treating PTSD. Extensive literature, research, professional societies and political agendas support each of these approaches. Current protocols for evaluating and treating PTSD avoid addressing the possibility of coexistent SDB.<sup>3–7,18</sup> Despite the short-term success of the many available therapies in treating nightmares and insomnia, PTSD has proven to be extraordinarily difficult to cure. Suicide risk and the negative effects of PTSD on waking life function commonly extend into extreme old age despite therapy.<sup>19</sup> Untreated obstructive sleep apnea also has long-term effects on morbidity and mortality. For the large cohort of PTSD patients with comorbid obstructive sleep apnea, treatment of their apnea is likely to have long-term benefits, improving the status of their comorbid diagnoses, waking function, and their quality of experience across the full spectrum of life. It seems clear that the field of sleep medicine could and should assume a significant and expanded role in the treatment of PTSD. This will only

happen, however, with increased emphasis in the field, further research, and the political will to interact and compete with other stakeholders engaged in the diagnosis and treatment of this common yet difficult diagnosis.

## CITATION

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## DISCLOSURE STATEMENT

Dr. Pagel reports no conflicts of interest.