

## LETTERS TO THE EDITOR

## Obstructive Sleep Apnea Severity in Dissociative Identity Disorder can Vary Significantly Depending Upon the Autonomic Activation Status of the Personality That Has Executive Control

Comment on Gandotra et al. Dissociative identity disorder CPAP adherence: an uncommon factor in obstructive sleep apnea. *J Clin Sleep Med.* 2018;14(4):693–695.

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Gandotra and colleagues<sup>1</sup> have presented an interesting case of a woman with dissociative identity disorder (DID) (previously multiple personality disorder), and mild obstructive sleep apnea (OSA) treated with continuous positive airway pressure (CPAP) where adherence to CPAP was dependent upon certain personalities that decided her CPAP use. The authors report daily CPAP data and the dominant personalities, observed prospectively over 7 months. “Mrs. B” (present 88% of time, treatment-adherent personality) and “Mrs. C” (present 4% of time, treatment nonadherent personality) were the dominant personalities with the remaining 4 personalities present 8% of the time in total.<sup>1</sup> The summary of usage (h/night) and apnea-hypopnea index (AHI) (events/h) by personality indicated the following: as expected, the mean  $\pm$  standard deviation (SD) usage by “Mrs. B” of  $4.92 \pm 1.6$  h/night was significantly ( $P < .000001$ , Figure 2<sup>1</sup>) greater than the mean  $\pm$  SD usage of  $0.96 \pm 2.15$  h/night by “Mrs. C”. However the mean  $\pm$  SD AHI of  $1.07 \pm 0.7$  events/h associated with “Mrs. B” who was CPAP-adherent was not significantly different ( $P = .15$ , Figure 2<sup>1</sup>) from the mean  $\pm$  SD AHI of  $0.67 \pm 0.9$  events/h associated with “Mrs. C” who was CPAP nonadherent.

The prevalence of DID in the United States is about 1.5%.<sup>2</sup> The core feature of DID is the presence of two or more distinct personality states that exchange executive control over the behavior of the individual.<sup>2,3</sup> The different personalities in DID that embody complex dissociated states of consciousness also demonstrate physiological differences<sup>1</sup> including different levels of autonomic nervous system (ANS) reactivity and arousal.<sup>3,4</sup> The varying levels of ANS arousal embodied by the different personalities in DID can theoretically affect the AHI wherein higher levels of arousal can lead to greater ventilatory instability<sup>5</sup> and a higher AHI. “Mrs. B” was significantly ( $P < .000001$ , Figure 2<sup>1</sup>) more adherent to CPAP than “Mrs. C”, although the AHI values were not significantly different ( $P = .15$ , Figure 2<sup>1</sup>) between the two personalities, suggesting perhaps that the baseline AHI (not reported<sup>1</sup> for the individual personalities) for “Mrs. C” may have been much lower than for “Mrs. B.” Even though physically both “Mrs. B” and “Mrs. C” shared the same

body, differences in their levels of autonomic activation could have contributed to variations in their AHI, a factor that has important implications in the management of OSA in DID.

## CITATION

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## DISCLOSURE STATEMENT

All authors have seen and approved the manuscript. The authors report no conflicts of interest.