Response to Letter from Dr. Stepanski

Daniel J. Schwartz, M.D.; Pat Moxley, R.P.S.G.T.

University Community Hospital, Sleep Disorders Laboratory, Tampa, FL

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To the editor:

We appreciate Dr. Stepanski’s kind words but would like to clarify one or two points as pertains to our definition of an arousal. Having classified the events as “Brief Arousals” (3-15 seconds), “Long Arousals” (15-59 seconds), and “Wake Events” (≥ 60 seconds), we acknowledge that our Long Arousal may well include some episodes which might (using R&K) have been classified otherwise. Our definition of a long arousal will include some events which might or might not have been classified as Wake depending upon when in a given epoch the arousal begins and ends (this pertains to those arousals lasting 15-28 seconds which happen to overlap two epochs). In addition, Dr. Stepanski correctly notes that our definition of a Long Arousal will include some periods of definite Wakefulness (those arousals > 29 seconds), but we wish to make clear that it will not include those events exceeding 59 seconds. This is potentially pertinent to the discussion of the relative importance of sleep disruption versus sleep deprivation in the restorative effect of sleep, in that those prolonged periods of wakefulness resulting in a more profound loss of total sleep time are unlikely be included in our definition of a long arousal. Moreover, we would point out that, in our study, the Total Sleep Time did not correlate with the Epworth Sleepiness Scale, while the Long Arousals did.

We would agree entirely that sleep disruption seems to be a key factor in altering the restorative effect of sleep but wonder whether some disruptions are perhaps of more consequence than others (these Long Arousals accounted for only 18% of all of the arousal events in this group of patients with OSA, yet it was these longer arousals which bore the strongest correlation to the ESS).

Moreover, though we agree that a correlation of varied arousal durations with the MSLT or MWT will be interesting, we might suggest that an objective measure of an individual’s propensity to fall asleep in a soporific setting (MSLT) or an objective measure of his or her ability to remain awake in a soporific setting (MWT), versus the expression of an individual’s subjective sleepiness in a variety of settings (ESS) might each bear distinct clinical relevance.

Disclosure Statement

Dr. Schwartz and Ms. Moxley have indicated no financial conflicts of interest.

Address correspondence to: Daniel J. Schwartz, M.D., University Community Hospital, Sleep Disorders Laboratory, 13601 Bruce B Downs Blvd, Suite 131, Tampa, FL 33613; E-mail address: thetampasleepecenter@att.net