Sleep Complaints as Early Predictors of Posttraumatic Stress Disorder: A 1-Year Prospective Study of Injured Survivors of Motor Vehicle Accidents


Danny Koren, Ph.D., Isaac Arnon, Ph.D., Peretz Lavie, Ph.D., and Ehud Klein, M.D.

FROM ABSTRACT

OBJECTIVE: Disturbed sleep is a common complaint among patients with posttraumatic stress disorder (PTSD) that appears in the reexperiencing and hyperarousal symptom clusters in DSM-IV.

The causal relationship between sleep complaints and PTSD is unclear.

METHOD: Self-reported insomnia and excessive daytime sleepiness were assessed in 102 victims of motor vehicle accidents and 19 comparison subjects 1 week and 1, 3, 6, and 12 months after the trauma.

At 12 months the Structured Clinical Interview for DSM-III-R was administered to determine diagnoses of PTSD.

RESULTS: Twenty-six [25.5%] of the accident victims but none of the comparison subjects met the criteria for PTSD.

Logistic regression models indicated that sleep complaints from 1 month on were significant in predicting PTSD at 1 year.

CONCLUSIONS: These results suggest that on the basis of sleep complaints as early as 1 month after the trauma, it is possible to detect subjects who will later develop chronic PTSD.

THESE AUTHORS ALSO NOTE:

“Impaired sleep is a common complaint among people who suffer from posttraumatic stress disorder (PTSD) and has even been referred to as the ‘hallmark’ of PTSD.”

The main goal of this study is to explore the longitudinal course of sleep disturbances in recently traumatized individuals.

“The participants in this study were 102 survivors of motor vehicle accidents who were followed up prospectively for 1 year as part of a longitudinal study on the course of PTSD development.”
Importantly, exclusion criteria for this study included head injury or brain damage, loss of consciousness exceeding 10 minutes, and active treatment for psychiatric or sleep disorder at the time of the accident.

A matched comparison group of 19 patients was used as controls.

Each subject was interviewed, given standard questionnaires evaluating general psychopathology, and the quality of sleep was evaluated. This was repeated at 1 week and 1, 3, 6, and 12 months after the accident.

RESULTS

"Of the 102 survivors of motor vehicle accidents, 26 (25.5%) met the diagnostic criteria for PTSD at 12 months, but none of the 19 comparison subjects did."

"At 1 month the difference between the accident survivors with and without PTSD became significant for both insomnia and excessive daytime sleepiness."

"From 3 to 12 months these differences were sustained, and the self-rated sleep quality of the accident group without PTSD improved to the level of the comparison group."

DISCUSSION

"The main finding of the present study is a clear divergence of sleep quality profiles between motor vehicle accident survivors with and without PTSD."

"Even though most subjects reported sleep difficulties immediately after the accident, the severity was slightly greater in those who developed PTSD."

This initial difference in sleep difficulties widened over the first 3 months.

The "results suggest that on the basis of sleep complaints [insomnia and/or excessive daytime sleepiness] it is possible to detect subjects who will later develop PTSD as early as 1 month after the trauma."

KEY POINTS FROM DAN MURPHY

(1) PTSD is common after whiplash trauma, 25.5% of victims in this study.

(2) Impaired sleep may be the "hallmark" complaint for those suffering from PTSD.

(3) The sleep complaints of insomnia and/or excessive daytime sleepiness as early as 1 month after the trauma can predict those subjects who will later develop PTSD.