BACKGROUND: Children with brain and spinal cord tumors are at higher risk for sleep disruption. The incidence and characteristics of sleep difficulties in this population is not well understood. Our aim is to use survey and chart review to retrospectively and prospectively evaluate the frequency, severity, and types of sleep difficulties experienced by pediatric patients who have brain and spine tumors.

METHODS: Pediatric patients with a diagnosis of a brain or spinal cord tumor and their parents were surveyed at three time points during routine visits with their neuro-oncology team. Parents and children completed the following self-reported standardized surveys: The San Diego Pediatric Sleep Survey (Child) and The San Diego Pediatric Sleep Survey (Parent).

RESULTS: Identified sleep disturbances include difficulty initiating sleep, excessive movement while asleep, increased incidence of nocturnal awakening, and snoring. We identified high rates of behavioral and environmental modifiers of sleep quality including sleeping in a shared bed with another family member and poor sleep hygiene.

CONCLUSIONS: Identification of sleep disruption and factors contributing to sleep difficulties in this high-risk population will encourage proactive screening and recognition of these issues in future patients. Next steps include implementation of interventions such as referral to appropriate specialists, sleep hygiene modification, and parent/patient education. Early intervention may lead to overall improvement in quality of life and health, including increased academic success and job productivity in children and their caregivers.