Sleep is an essential biologic and physiologic process that is vital for maintaining or achieving optimal health outcomes. Care requirements in hospitalized patients frequently result in nocturnal disruptions that impact sleep quality. This exploratory, retrospective study aimed to identify and quantify nocturnal care disruptions in patients undergoing hematopoietic stem cell transplantation. A total of 1,642 nocturnal care interactions occurred during 160 patient nights of data collection. An average of 41 nocturnal care interactions occurred per patient. Most occurred from 12–12:59 am and 4–4:59 am. Most patients (73%) had sleep disturbance recorded in their chart by nurses, but physicians documented sleep disturbances for only 28% of patients. Care practices may be modifiable to promote sleep in the hospital setting.

Sleep-wake disturbances are a common problem for people with cancer, with estimated prevalence rates ranging from 35% (Sharma et al., 2012) to more than 50% (Janz et al., 2007). The severity and incidence is likely higher in people undergoing hematopoietic stem cell transplantation because of the intensive nature of the treatment and resulting side effects, coupled with potentially long hospital stays. Although the cause of sleep-wake disturbances in hematopoietic stem cell transplantation is most likely multifaceted (see Figure 1), environmental conditions and care requirements at night during hospitalization account for at least some of the problem.

The specific aims of this exploratory, retrospective study were to (a) describe types and frequency of healthcare provider and patient interactions that occur between the hours of 9 pm and 7 am that may disturb patient sleep, (b) determine the frequency of sleep-wake disturbance recognition by healthcare providers in hospitalized patients undergoing stem cell transplantation, and (c) examine the relationship between nocturnal care disruptions and sociodemographic factors.

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