

5.4.1 Sleep measures evaluation in patients with COPD

Figure 33 shows the associations of nighttime and daytime sleep measures with disease severity, dyspnoea, gender, and day group. In particular, the total night sleeping time was significantly higher in women and during weekends (Figure 33A). The number of nocturnal sleeping bouts (Figure 33B) increased both with airflow limitation and exertional dyspnoea. In particular, it was significantly higher in patients who had the most severe airflow limitation and who were the most dyspnoeic. The number of nocturnal sleeping bouts was significantly higher in men and during weekends. Both short duration of nocturnal sleeping bouts and low sleep efficiency were associated with a higher GOLD grade and dyspnoea score (Figure 33C and D). These two sleep measures were significantly higher for women. The time spent awake after the first sleep onset increased both with disease severity and dyspnoea, being worst in patients with GOLD grade 4 and MMRC score 4 (Figure 33E).

During daytime the sleeping time increased significantly with dyspnoea (Figure 33F), as did the number and duration of sleeping bouts (Figure 33G and H). Sleeping time and duration of sleeping bouts were significantly shorter in patients with GOLD grade 4.