

Leg Discomfort And Insomnia In Parkinson's Disease

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Objective: To investigate the association of insomnia with nocturnal leg discomfort in Veterans with Parkinson's disease (PD).

Background: Insomnia has been reported in more than 50% of the patients with Parkinson's disease. The most common type is sleep fragmentation, affecting up to 74-88% of the patients. Etiology is likely multifactorial; reversible factors are not clearly defined.

Design/Methods: 195 Veterans with PD were screened using a sleep questionnaire that included questions about difficulty in falling asleep, difficulty in staying asleep, crawling feelings in the legs when trying to sleep, leg kicking during sleep and leg cramps in sleep. Day time sleepiness, depression and disease severity were assessed using Epworth Sleepiness Scale (ESS), Zung Self Rating Depression Scale (SDS), and Hoehn and Yahr scale (H&Y), respectively.

Results: 51/195 (26.2%) patients endorsed difficulty in falling asleep and 86/195 (44.1%) in staying asleep. Presence of crawling feelings in the legs (27.2%), leg kicking (27.7%), and leg cramps at night (50.3%) were significantly more common in patients who endorsed either symptom of insomnia than those who endorsed neither. At least one of these 3 symptoms was reported by 70% of the patients. Those who endorsed leg kicking or leg cramps at night were sleepier during the day (ESS \geq 10) than those who reported neither symptom.

The groups (with or without insomnia) did not differ by presence of depression or disease severity.

Excessive Daytime Sleepiness

Sleepy Not Sleepy

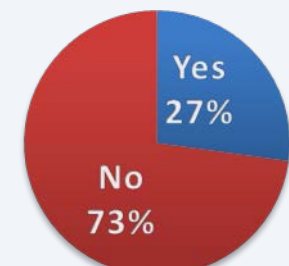
Trouble falling asleep

Yes No

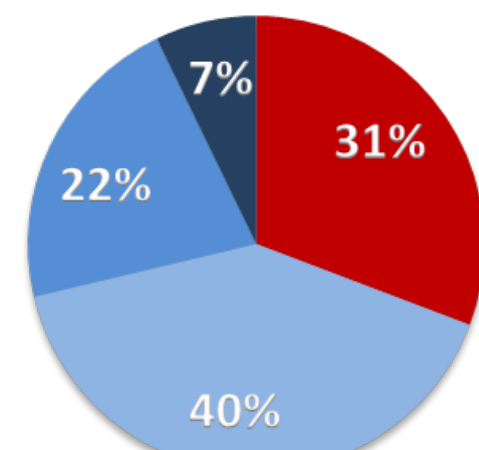
Trouble staying asleep

Yes No

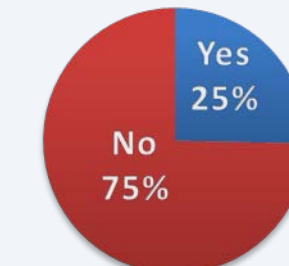
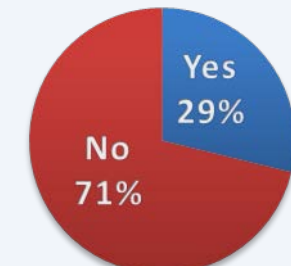
Crawling feelings in legs when trying to sleep



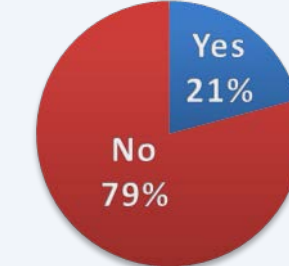
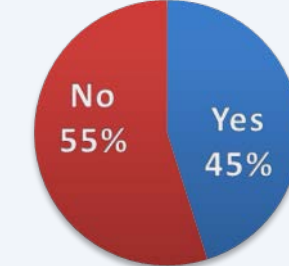
Of all subjects: percentage with none, one, two or all three leg symptoms



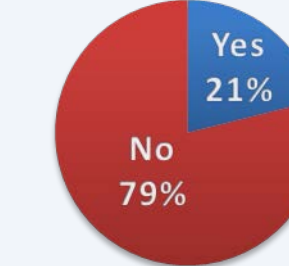
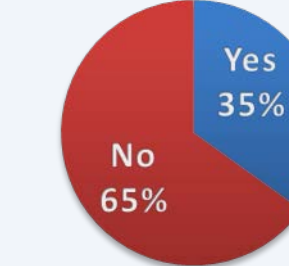
- No to all three items
- Yes to one item
- Yes to two of the items
- Yes to all three items



P = 0.596

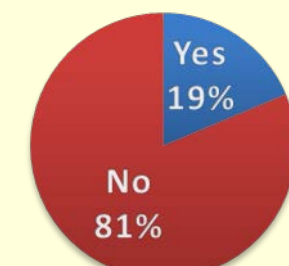
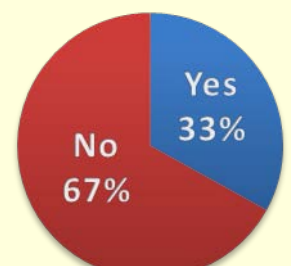
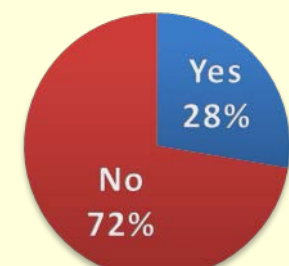


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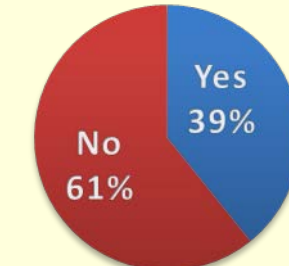


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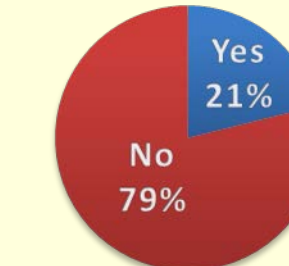
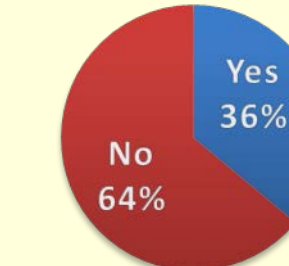
Leg-kicking during sleep



P = 0.026

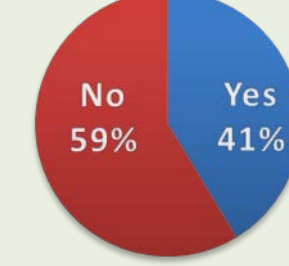
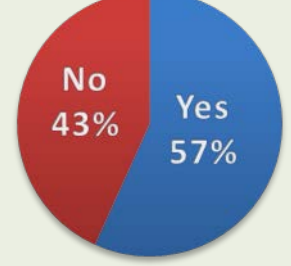
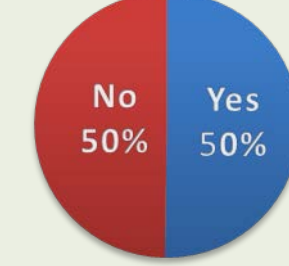


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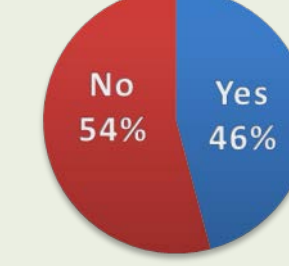
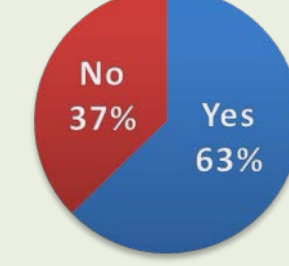


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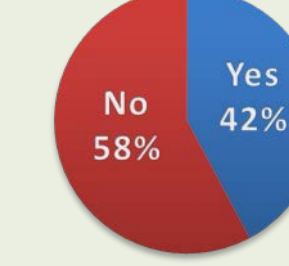
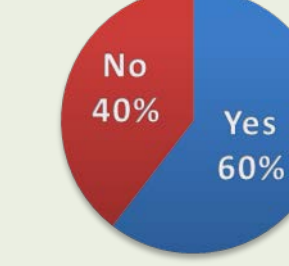
Leg cramps during sleep



P = 0.036

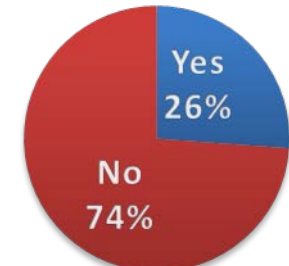


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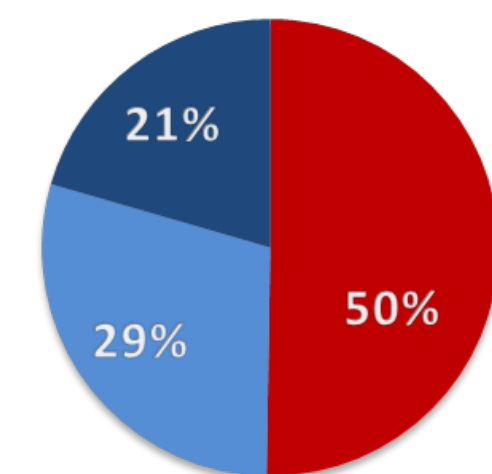


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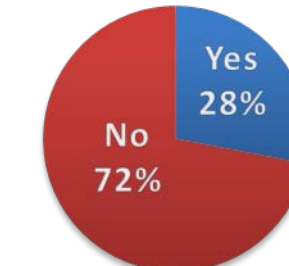
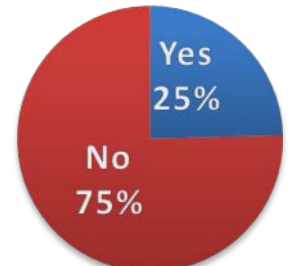
Trouble falling asleep at night



Of all subjects: percentage with none, neither, or both problems sleeping



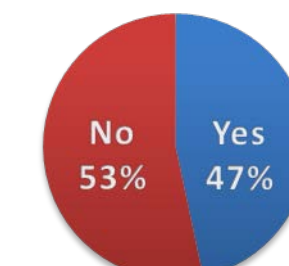
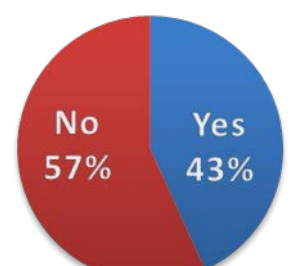
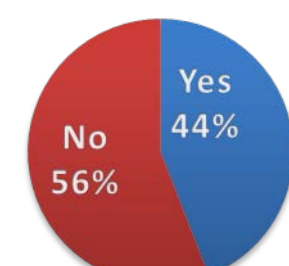
- No to both items
- Yes to either of the items
- Yes to both items



P = 0.598

Conclusion: Leg discomfort at night is common in Veterans with Parkinson's disease, and is associated with difficulty in falling and staying asleep. Therapies focused on these potentially modifiable conditions should be explored in the quest to improve insomnia in this patient population.

Trouble staying asleep at night



P = 0.639

