

Nocturnal Awakenings from Sleep in Older Adults: Prevalence, Correlates and Relationship with Global Sleep Dissatisfaction

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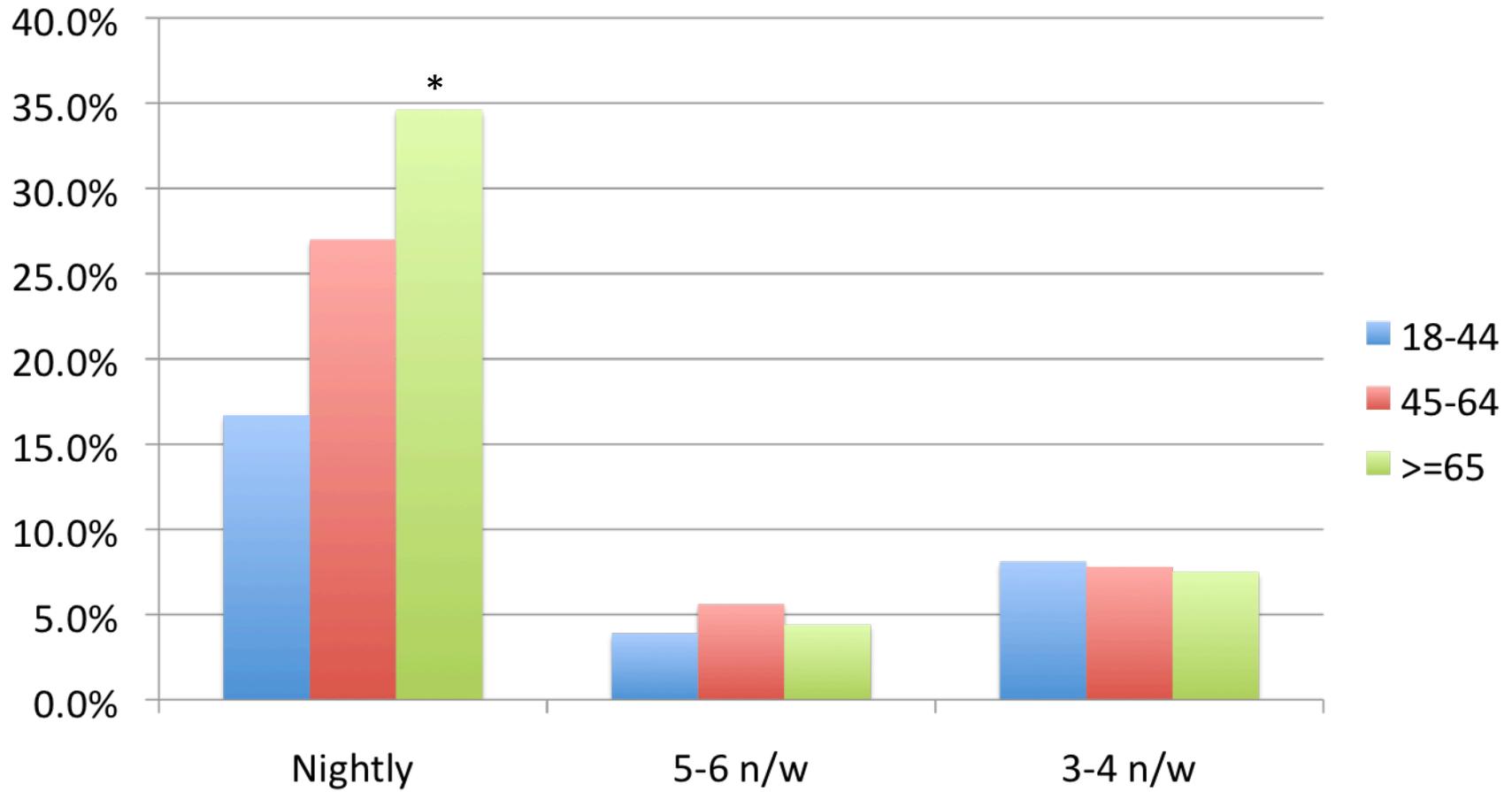
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Study Sample and Protocol

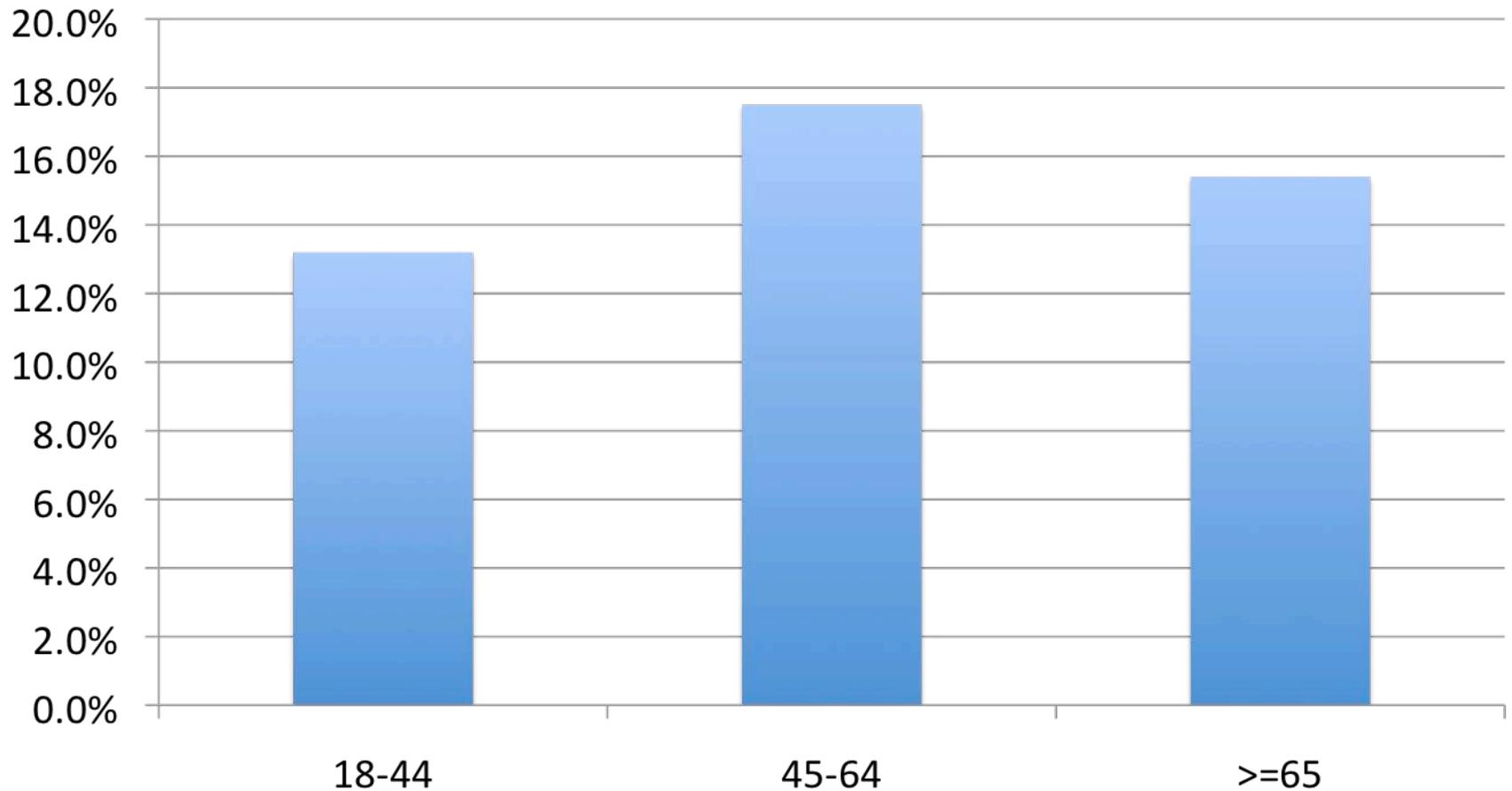
- **8,937 community-dwelling individuals, aged ≥ 18 .**
- **Representative sample of California, New York and Texas.**
- **1593 individuals aged ≥ 65 .**
- **Sleep-EVAL telephone interview.**

Nocturnal Awakenings: Prevalence by Frequency and Age

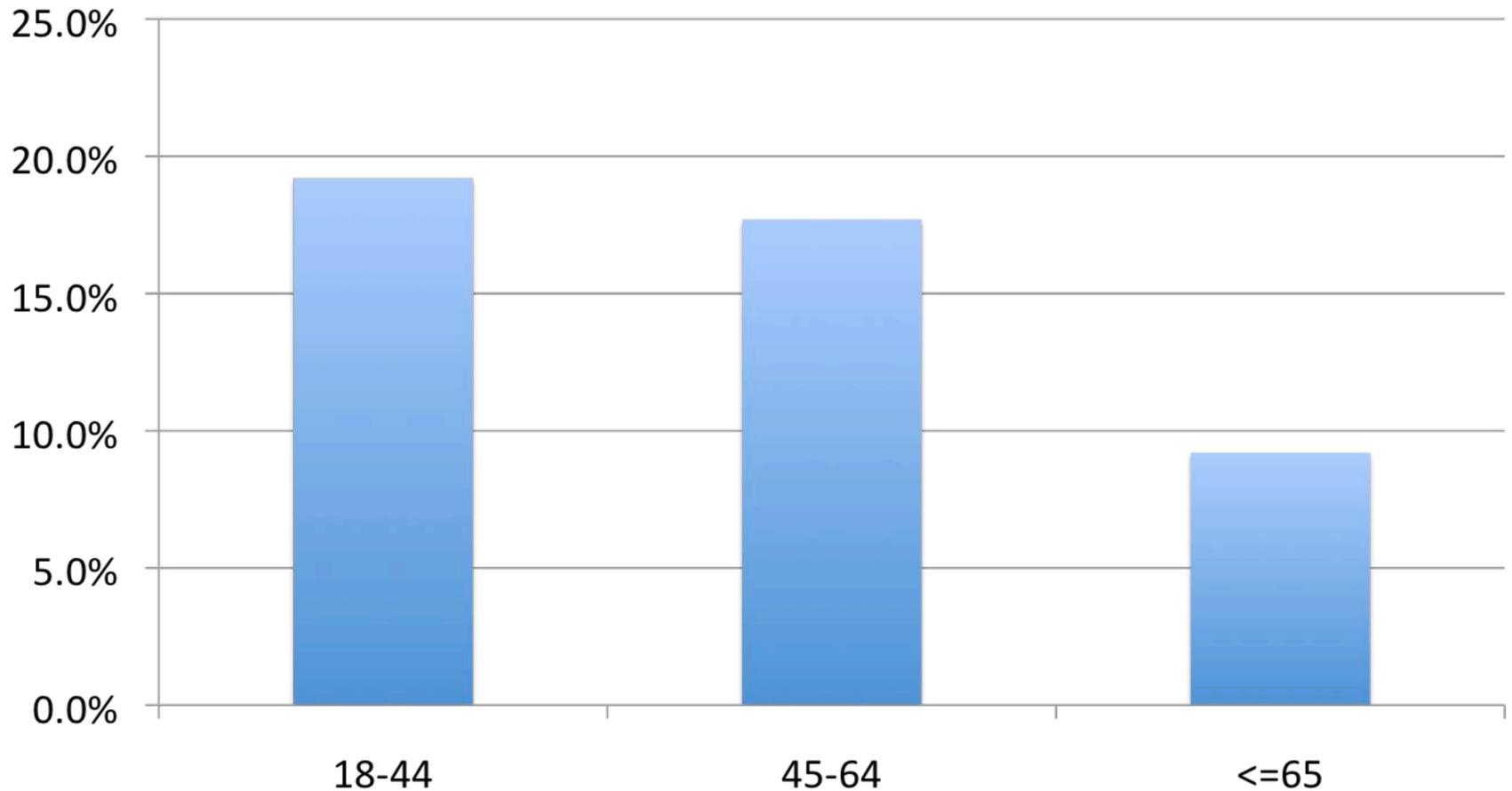


*p <.0001 between age groups

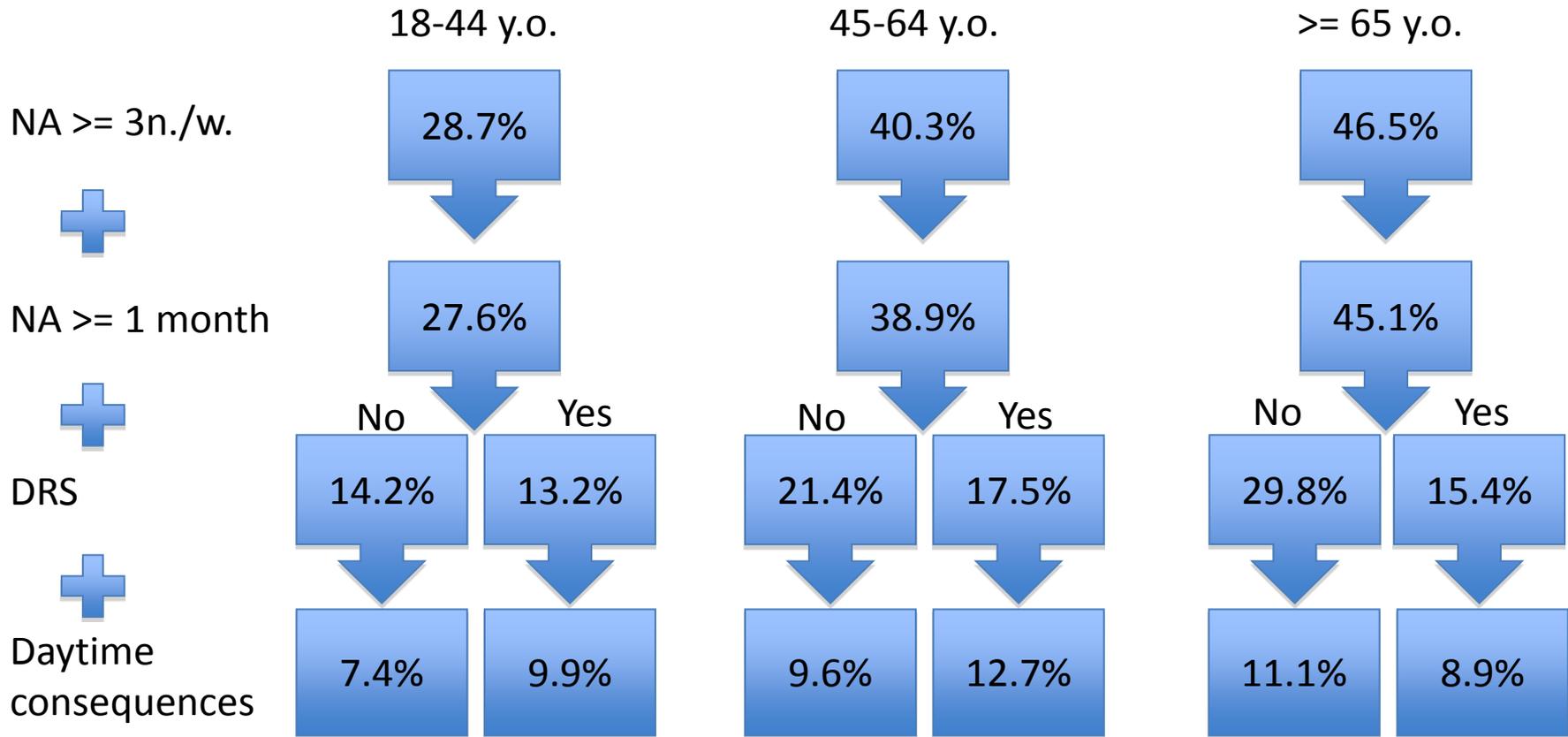
Prevalence of Difficulty Returning to Sleep (DRS)



Prevalence of Global Sleep Dissatisfaction (GSD)

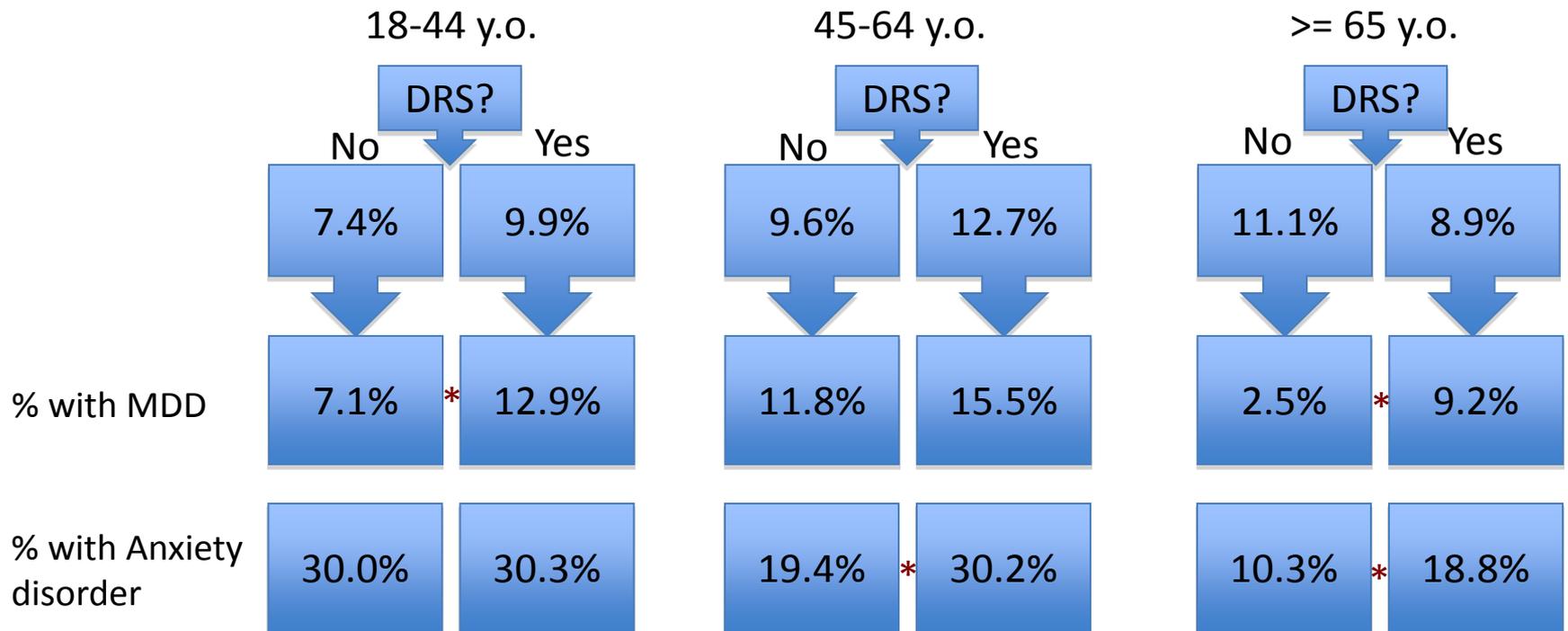


Prevalence of Nocturnal Awakenings and Correlates



Association with Psychiatric Disorders

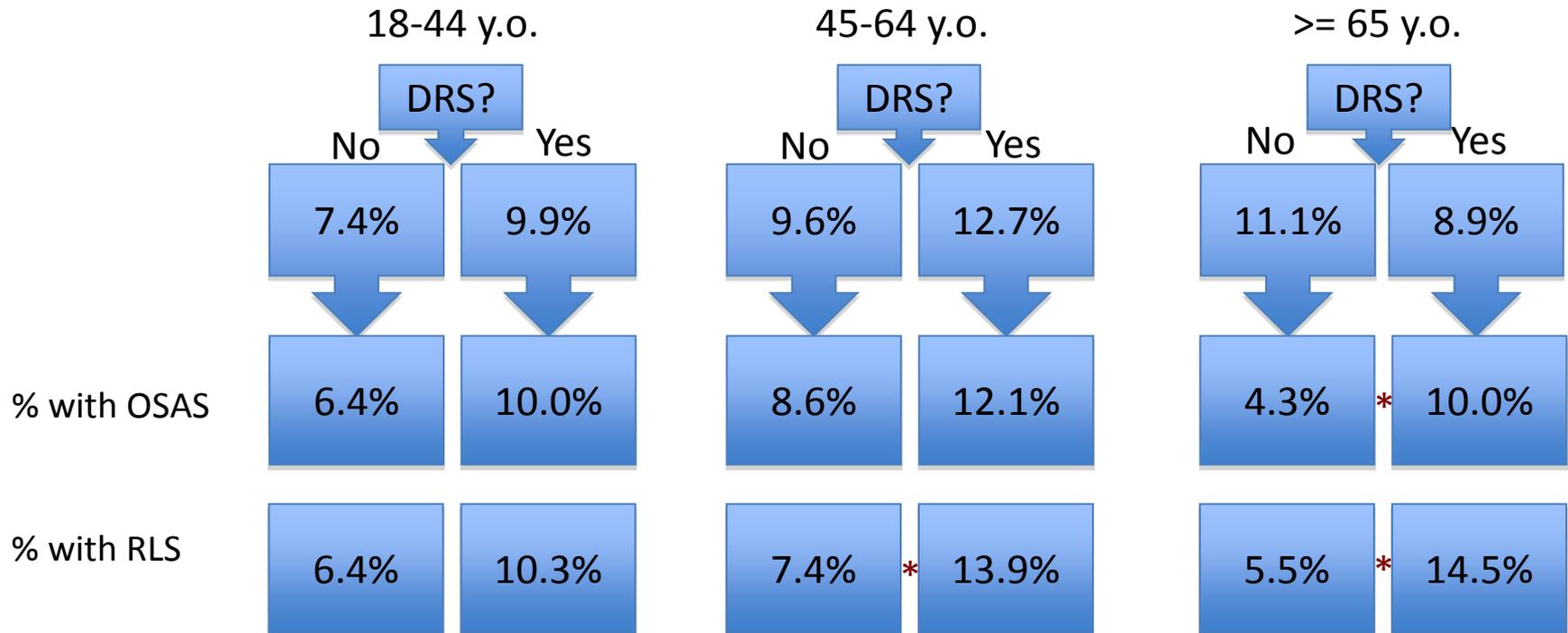
NA ≥ 3 n./w. for at least 1 month with daytime consequences



* $p < .01$ between presence/absence of DRS

Association with OSAS and RLS

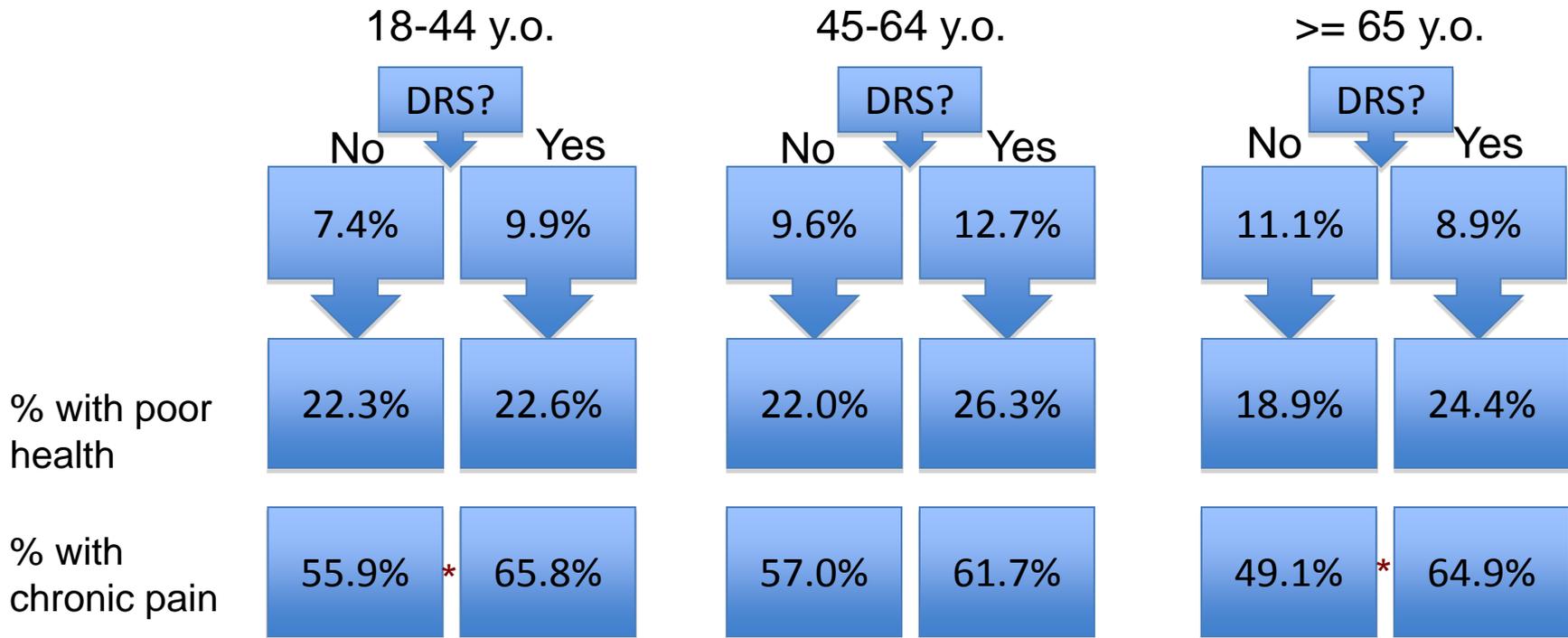
NA ≥ 3 n./w. for at least 1 month with daytime consequences



* p<.01 between presence/absence of DRS

Associations with Health and Pain

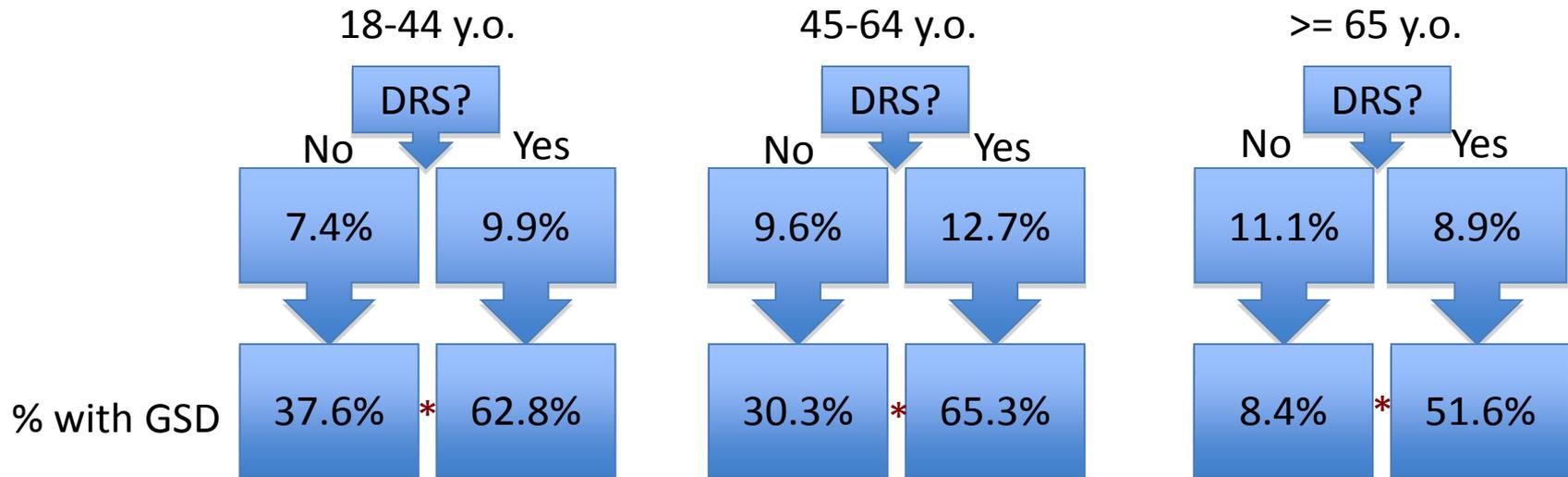
NA ≥ 3 n./w. for at least 1 month with daytime consequences



* $p < .01$ between presence/absence of DRS

Association with Global Sleep Dissatisfaction

NA ≥ 3 n./w. for at least 1 month with daytime consequences



* $p < .01$ between presence/absence of DRS

Conclusions

- **The prevalence of nightly NA was significantly greater ($p < .0001$) in older (34%) than in middle-aged (26%) and younger (17%) adults.**
 - **Reports of less frequent NA occurred with relatively low frequency and no age-related differences.**
- **DRS peaked in middle-age.**
- **GSD declined significantly with age.**

Conclusions

- **Chronic and frequent NA associated with DRS and Daytime Consequences showed no age effect.**
- **The age-related increase in nightly NA was not explained by psychiatric illness, OSAS or RLS, although poor health and pain may be contributors.**

Conclusions

- **Older adults reporting GSD were much more likely to report frequent and chronic NA associated with DRS and CD than were middle-aged or younger adults.**
 - This suggests either that older adults tend to evaluate their GSD based on NA relative to younger adults, or that younger adults use other factors in addition to NA to evaluate their GSD.
- **This age-related difference in the subjective evaluation of sleep quality is consistent with a previously observed age-related difference in the experience of non-restorative sleep.**

Vitiello and Ohayon. Is Non-Restorative Sleep Different in Older Adults? *Stanford Journal of Sleep Epidemiology*, 1:3.