Women sleep as soundly as men, but are more stressed and ill

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Introduction

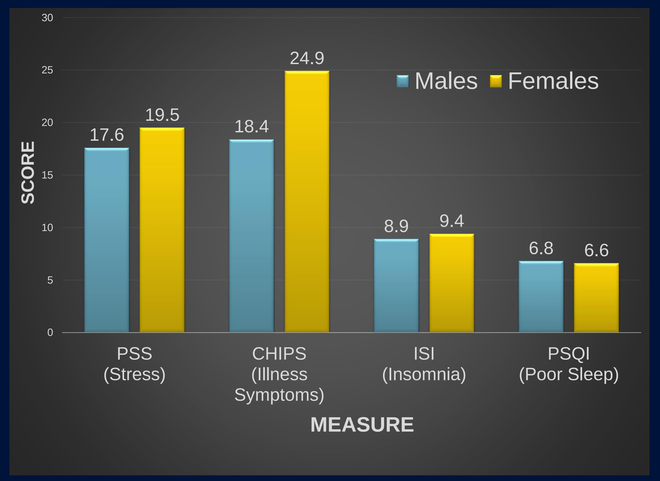
Research within our lab has demonstrated consistent sex differences in stress and health, with women reporting both higher stress and poorer health. Though the impact of stress on health is well-established, researchers are increasingly focusing attention on the health consequences of inadequate sleep. Given the previously observed sex differences in stress and illness reporting, we set out to examine whether similar differences would exist in self-reported sleep quality and insomnia. Previous research has shown mixed results in this regard, but we are unaware of any studies that have examined sex differences in stress, health, and sleep within the same sample

Method

Seven-hundred-and-forty-seven college students completed an online survey that included demographic questions and measures of self-reported stress, illness, sleep quality, and insomnia. Participants were recruited through class announcements and social media. Stress was measured with the ten-item Perceived Stress Scale (PSS), which asks participants to report the level of stress that they've experienced within the past month. Illness symptoms were measured using the thirty-three item Cohen-Hoberman Inventory of Physical Symptoms (CHIPS), which asks participants to indicate how many of the listed symptoms they've experienced during the previous two weeks. Sleep Quality was measured using the nineteen-item Pittsburgh Sleep Quality Index (PSQI), which asks participants to report their sleep habits for the past month. Insomnia was measured with the seven-item Insomnia Severity Index (ISI). Three-quarters (75%) of the participants were female and the majority (92%) identified themselves as Hispanic. Participants' age ranged between 18 and 56 years (M=23.2, SD=5.29).

Results

In keeping with prior research, males reported significantly lower stress (M = 17.6 (6.4) and M = 19.5 (5.9), respectively, $t(718) = 3.72$, $p < .001$) and less illness symptoms (M = 18.4 (17.5) and M = 24.9 (20.0), respectively, $t(355) = 4.18$, $p < .001$) than females. However, males and females did not differ in terms of insomnia (ISI; M = 8.9 (5.4) and M = 9.4 (5.9), respectively, $t(719) = 1.03$, $p > .05$) or sleep quality (PSQI; M = 6.8 (3.5) and M = 6.6 (3.5), respectively, $t(717) = .66$, $p > .05$).



Discussion

Our results replicate previously reported sex differences in stress and health (demonstrating significantly higher self-reported stress and self-reported illness symptoms for females), but simultaneously showed no difference between males and females on two different sleep-related measures. Some have suggested that sex differences in stress and health may simply reflect differences in self-reported bias (i.e., underreporting of stress and illness by men or over-reporting by women). If this were the underlying cause, however, one would expect similar effects for measures of insomnia and sleep quality. Though it is encouraging to see a lack of disparity between the sexes, such findings cannot be interpreted as meaning that males and females are sufficiently well-rested; both groups could benefit from improved sleep.

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