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ETHNICITY, SLEEP HYGIENE KNOWLEDGE, AND SLEEP HYGIENE PRACTICES[1]

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Summary.—We tested the mean differences in scores on Sleep Hygiene Knowledge and on Sleep Hygiene Practices among four ethnic groups of university students ($N=963$). We computed significant main effects for ethnicity for both of these variables. Primarily the results reflect that the Euro-American students scored significantly higher on both scales than each of the other three groups.

Recently, we reported that ethnicity was significantly related to both the quantity and the quality of the sleep of a large group of university students (1). In reporting these data, we noted that there had been, to our knowledge, no previous studies that had considered relationships between ethnicity and sleep. Thus, the purpose of this research was to elaborate these relationships further by measuring the association between ethnicity and both sleep hygiene knowledge and sleep hygiene practices.

To do this, we obtained the responses of 963 university undergraduates to a questionnaire that included items used to identify their ethnic identity and sex and the items of the Sleep Hygiene Knowledge and Sleep Hygiene Practices Scales (2). The means, standard deviations and the number in each of the four ethnic groups that we considered, i.e., African Americans, Asians, Euro-Americans, and Hispanics, are listed in Table 1.

We analyzed these data by computing separate 2 (sex) by 4 (ethnicity) analyses of variance for the Sleep Hygiene Knowledge and the Sleep Hygiene Practices scores. For Sleep Hygiene Knowledge, the main effect for ethnicity was significant ($F_{3,956}=9.28$, $p<.001$) and both the main effect for sex and the interaction of sex by ethnicity were not significant ($F_{1,956}=1.27$ and $F_{3,956}=1.45$, respectively). For the Sleep Hygiene Practices Scales, the main effect for ethnicity was significant ($F_{3,956}=7.16$, $p<.001$) and both the main effect for sex and the interaction of sex by ethnicity were nonsignificant ($F_{1,956}=.11$ and $F_{3,956}=1.55$, respectively).

To elaborate these further we computed separate t statistics to test the difference between each pair of ethnic group means for both scales. The re-

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TABLE 1
MEANS AND STANDARD DEVIATIONS FOR RESPONSES OF FOUR ETHNIC GROUPS OF STUDENTS TO SLEEP HYGIENE KNOWLEDGE AND THE SLEEP HYGIENE PRACTICES SCALES*

Sleep Hygiene Scale	African American ($n = 94$)		Asian ($n = 397$)		Euro-American ($n = 273$)		Hispanic ($n = 199$)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Knowledge	26.1	4.6	25.6	5.1	24.2	5.0	26.3	4.9
Practices	30.0	9.8	29.0	9.9	25.5	9.8	27.6	9.5

*For both scales the lower the score the higher the knowledge or practice.

sults of these *post hoc* tests suggest that significant main effect for ethnicity computed for the Sleep Hygiene Knowledge scores was due primarily to the fact that the Euro-American group scored significantly higher than each of the other ethnic groups. The significant main effect for Sleep Hygiene Practices was primarily due to the fact that the Euro-American group self-reported significantly higher scores on Sleep Hygiene Practices than the other three ethnic groups and that the Hispanic group reported scores on Sleep Hygiene Practices that were somewhat greater than those of the African American and Asian groups.

Over-all, the pattern of the means for the Sleep Hygiene Practices Scales correlated rather well with the pattern of the means presented in our recent paper (1). In that study, we reported that the average self-reported sleep duration for African Americans was 6.94 hr. per night; for Asians 6.86 hr. per night; for Euro-Americans 7.18 hr. per night, and for Hispanics 7.10 hr. per night.

Finally, we wish to note that, while there were significant differences between these ethnic groups in scores on Sleep Hygiene Knowledge, none of these groups should be viewed as having a good knowledge of sleep hygiene. For example, the Euro-American group who scored highest averaged only 57% correct on this scale. On the other hand, the self-reported sleep hygiene practices of these groups was much higher. For example, the African American group, who scored lowest, averaged 77% in their self-professed adherence to correct sleep hygiene practices, while the Euro-American group, who scored highest, averaged 81% correct.

The correlation between scores on these scales was .12. It is difficult to know which scale provides the most credible index of actual sleep hygiene practices. What is needed is a longer diary study that would require individuals to keep a daily record of their adherence to correct sleep hygiene practices. However, it is clear from these data that in general, university students are not well informed regarding the nature of sleep hygiene.

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