

1-2021

Establishing Criterion Validity for the Revised Critical Nutrition Literacy Tool in U.S. College Students

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Bedoyan, J., McNamara, J., Olfert, M. D., Byrd-Bredbenner, C., & Greene, G. W. (2021). Establishing criterion validity for the Revised Critical Nutrition Literacy Tool in U.S. college students. *Journal of education and health promotion, 10*, 37. https://doi.org/10.4103/jehp.jehp_632_20

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added sugar was highest in the WVU population (13.09 ± 8.24), followed by URI (12.20 ± 8.46) and then Rutgers (10.82 ± 5.76). There were no significant differences between universities by CNL scores.

Critical nutrition literacy Out of the 1,388 students that completed the survey in full, 459 students (33.1%) were classified with lower CNL, 453 (32.6%) with moderate CNL, and 478 (34.4%) with higher CNL according to scoring described in the Methods. There was a small yet significant effect on both living on campus ($F [1,1715] = 29.16, P < 0.001$) and age ($F [6,1434] = 5.78, P < 0.001$) on CNL total score. Those living on campus had a lower CNL score than those living off campus, and younger participants had lower CNL scores than those who were older [Table 3].

Table 3
Phase 2 relationship between baseline demographics and critical nutrition literacy[†] tertiles for completers of Critical Nutrition Literacy Tool

Age and living on campus were not significant covariates after completing MANOVA tests and thus were not included in the final model. The final model suggests that there was an overall significant effect of CNL on daily consumption of F/V and added sugar ($F (2,1321) = 3.121, P < 0.05$; Wilks' $\Lambda = 0.991$). When examining each dependent variable, students with lower CNL consumed a greater number of daily teaspoons of added sugar compared to those with higher CNL ($P = 0.043$). The mean added sugar intake was 13.54 ± 9.0 ,

respectively, for students with lower CNL and 12.27 ± 7.6 for those with higher CNL. Although not statistically significant, there was a trend for students with lower CNL to consume fewer cups of F/V than those with higher CNL ($P = 0.093$). The mean F/V intake was 2.15 ± 0.89 , respectively, for students with lower CNL and 2.28 ± 0.96 for those with higher CNL [Table 4].

Table 4
Phase 2 relationship between critical nutrition literacy[†] tertiles and fruits/vegetables and added sugars for completers

Discussion

Results indicated that there was evidence to