Seasonal Differences in Active Transport among College Students

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Insufficient physical activity is prevalent among college students, which is of concern given the associated negative health outcomes. Active transport (AT, walking or biking) to, from, and on campus represents a way in which students can accumulate the levels of physical activity necessary to benefit their health, whilst also benefiting the environment. However, among other things, active transport is, by nature, influenced by the environment, including the weather.

PURPOSE: To examine how active transport varied based on the time during the semester and by season.

METHODS: Students completed an online survey assessing where they self-reported demographics, residence location (on/off-campus) distance from campus, and AT (walking or biking) behaviors, including weekly minutes, and trips walking or biking to, from, and on-campus. A series of paired samples t-tests were used to examine differences in AT behaviors over time. RESULTS: 1,291 participants provided data at two of the three time points, the majority of whom were women (62%). Differences were revealed when analyses were split by semester. Over the course of the fall semester (September vs. December), there was a significant decline in weekly AT minutes (304.2 ± 235.4 vs. 262.5 ± 215.8, p < .001), AT trips to campus (5.4 ± 2.7 vs. 4.7 ± 2.9, p < .001), AT trips from campus (5.4 ± 2.7 vs. 4.7 ± 2.9, p < .001), and AT trips on campus (6.6 ± 1.7 vs. 6.4 ± 1.8, p = .019). By contrast, AT remained unchanged over the course of the spring semester (January vs. April). CONCLUSION: Findings indicate that season influences the college students’ AT behaviors. The decline in AT behaviors during the fall semester could be due to the colder weather in the later part of the semester. Universities located in cooler climates should strongly encourage physical activity during the winter period given the benefits of physical activity to increase mental and physical health.