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Evaluating the on-campus food environment of an Irish university

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University attendance is one of the most crucial times of health behaviour development. This is a period where young adults are likely to live away from home, engage in social events with exposure to alcohol and drug use, experience high demand for energy and brain power as well as sleep deprivation[1]. The food environment has a strong influence on health behaviour[2]. Third level education settings provide an opportune time to identify potential intervention points to influence health behaviour development. The aim of this research was to manually audit an Irish university's campus outlets to assess the food environment under the themes of availability, accessibility, and promotion.

The main food purchasing outlets on a university campus in Ireland were identified and grouped. Evaluation tools were adapted from previous research (Roy et al 2016) to assess individual food/beverages and meals offered within each outlet, including vending machines. Each outlet was positively scored for stocking healthier foods/beverages and having an absence of unhealthy products. The maximum achievable score was 141 (higher scores indicate 'healthier' outlet). Outlets were ranked into tertiles based on their 'healthiness'. Chi-squared analysis was performed to compare the results between different outlet groups. Meals provided in the restaurants and cafes were assessed for a healthy balance based on the food pyramid.

None of the outlets on campus were scored within the 'healthy' tertile. All 14 outlets were scored as 'intermediate'. Overall unhealthy foods were more available, accessible, and promoted than healthy items. Twenty prepared meals were available to purchase. A quarter of which provided only one out of five of the recommended healthy food groups and 30% providing four food groups. Restaurants, shops, and cafes had some healthy alternatives on offer and all outlets had a vegetarian or alternative dairy option available. However, over a third of outlets were charging more for the healthier options than alternatives. The only promotion of overconsumption was that of alcohol in the student bar with "3 for 1 drinks". The university lacked sufficient self-catering facilities to allow students to heat homemade meals. Opening hours were an issue across campus and no outlets were open outside of 8am-6pm which means those studying/working outside of these hours are reliant on vending machines. The food/beverages stocked in vending machines were largely unhealthy (~70%) and almost 20% of the slots were also vacant.

Our application of these audit tools in the university highlights the campus' need to implement a wider variety of healthy items across all outlets. It would be beneficial to repeat this analysis in other universities. Future research should consider interventions on how to improve access to healthy food in a way which is cost- effective to the catering providers.

References

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2. Turner C, Aggarwal A, Walls H *et al*. (2018) *Glob Food Sec* **18**, 93–101.