

Education

IN LIFESTYLE MEDICINE



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Improving Medical Student Access to Nutrition During the Core Surgery Clerkship

Abstract: *The rigorous demands of medical education create circumstances that can make it challenging to maintain a healthy diet. Evaluations from students at an urban medical school in the northeast U.S. regarding their surgery clerkship highlighted the difficulty of finding healthy snacks or meals between operations and patient care obligations. In response, we implemented the Nutritional Wellness Initiative, a pilot program designed to offer accessible, healthy snacks to medical students during their surgery clerkship. We conducted a 3-month pilot program at three hospital sites and surveyed participants. Responses were compared to controls who completed their surgery rotation before initiation of the pilot program. Both groups emphasized the importance of having access to food during the workday for student wellness, with*

less than 50% of students in either group eating lunch daily during the surgery rotation. Of students who participated in the pilot program,

delivery and to create student education resources regarding healthy snacking habits and choices.

 **“Secure snack storage sites were identified at each hospital in collaboration with clerkship administrators.”** 

63% used the provided snacks at least once per week. This model offers one approach to improving student access to nutritious snacks during the busy surgery workday. To improve our program going forward, we have engaged the Director of Lifestyle Medicine and Wellness in the Department of Surgery to help optimize nutritional

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Introduction

The rigorous demands of clinical rotations present many challenges to medical students, one of which is

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maintaining a healthy diet amidst increasing clinical and educational responsibilities. Evaluations from students at an urban medical school in the northeast U.S. regarding their surgery clerkship have highlighted a persistent and important issue: the difficulty of finding healthy snacks or meals between operations and patient care obligations. In response to this need, our institution implemented the Nutritional Wellness Initiative, a pilot program designed to offer accessible, healthy snacks to medical students during their surgery clerkship. The specific aims of this project included: (1) establishing baseline levels of nutritional access and its perceived importance among medical students; (2) evaluating the effectiveness of the program in improving access to healthy snacks and its impact on student wellness; and (3) gathering data to support the potential scalability and implementation of similar programs at other institutions. By addressing the often-overlooked aspect of eating healthy foods while at the hospital, this pilot program seeks to improve the immediate well-being of medical students and contribute to the broader discourse on integrating wellness initiatives into medical education.

Methods

Medical school wellness grant funding was used to establish a 3-month pilot program to distribute snacks to students at three affiliated surgery clerkship hospital sites from October through December 2023. Surgery clerkship administrators identified appropriate locations for snack distribution at each hospital site and advertised the program to students completing the surgery clerkship. One to two medical student representatives were assigned to each hospital site, and these individuals were responsible for restocking snacks, maintaining snack area cleanliness, and soliciting

informal feedback from students to facilitate program improvements for secure snack storage. Snacks offered are listed in [Table S1](#).

Students who completed the surgery clerkship prior to pilot program initiation were surveyed using modified 5-point Likert scales to establish baseline levels of nutritional access. After the pilot program, student participants were surveyed using modified 5-point Likert scales to assess program efficacy (see [Supplemental Materials](#)). All survey results were collected anonymously, and students were not offered academic or material incentives to complete surveys. Institutional Review Board exemption for quality improvement research was granted by the Mass General Brigham Institutional Review Board, and the Harvard Medical School Program in Medical Education Executive Committee granted permission to survey medical students for this project.

Results

Secure snack storage sites were identified at each hospital in collaboration with clerkship administrators. We aimed to have these spaces be near the OR, whereas cafeterias and student food storage spaces are often elsewhere in the hospital. Existing storage spaces could be successfully repurposed at two hospitals for the pilot program snacks. The third hospital requested that lockers be purchased to facilitate snack storage near the operating rooms. In all cases, snacks were stored in spaces accessible only to students completing their surgery clerkship. Snacks were provided for 39 students across the three clerkship sites during the 3-month pilot period. The costs were approximately \$500 per clerkship site, which included one-time storage locker purchases (~\$150 total).

A total of 42 medical students who completed their surgery clerkship prior to the initiation of the pilot program responded to our baseline survey (25% response rate). This relatively low response rate creates a possibility of bias, in which students with some grievance about eating on the surgery clerkship could be more likely to answer the survey. Only 45% indicated that they were able to eat lunch “every day.” Additionally, 17% of students stated that they were able to eat snacks only “once or twice per month,” “once or twice during the clerkship,” or “never during the clerkship.” However, 93% of students felt that access to healthy snacks on rotations was either “very important” (69%) or “somewhat important” (24%), and 93% of students felt that having access to snacks on clinical rotations would “definitely” (74%) or “somewhat” (19%) improve student wellness.

A total of 13 medical student participants (33%) completed the survey following the conclusion of the pilot program. Similarly to the pre-pilot program baseline, only 46% of students reported eating lunch “every day.” However, only 8% of students in this group stated that they were able to eat snacks “only once or twice per month,” “once or twice during the clerkship,” or “never during the clerkship.” In this cohort, 100% of students felt that access to healthy snacks on rotations was either “very important” (85%) or “somewhat important” (15%). Additionally, 100% of students felt that having access to snacks on clinical rotations would “definitely” (92%) or “somewhat” (8%) improve student wellness. 63% of students reported using the snacks provided by the Nutritional Wellness Initiative “once per week” or more frequently, and only 18% reported “never” using the snacks during the clerkship. Despite minimal faculty outreach regarding the Nutritional Wellness Initiative, 64% of students thought that the surgery clerkship faculty were either “very” (55%) or

“somewhat supportive” (9%) of the project.

Discussion

This Nutritional Wellness Initiative model offers one approach to improving student access to nutritious snacks during the busy surgery workday. This project has already been piloted at three unique hospital sites, and this framework has the potential to be customized for implementation at other institutions. Barriers to implementation include securing funding and identifying an accessible location for snack distribution, for which a locker or workroom near the operating rooms can be considered. Hospital or medical school wellness funding may provide pilot program support.

To improve our program, we engaged the Director of Lifestyle

Medicine and Wellness in the Department of Surgery and a registered dietitian to help optimize nutritional delivery and to create student education resources regarding healthy snacking habits and choices. Since surgical residents and fellows face many of the same time constraints as medical students,^{1,2} we plan to also make these educational resources available to those groups. We hope this will allow us to address trainees’ immediate need for access to nutritional snacks while helping them build a foundation of healthy eating habits that will serve them well throughout their surgical careers.

Declaration of Conflicting Interests

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Supplemental Material

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