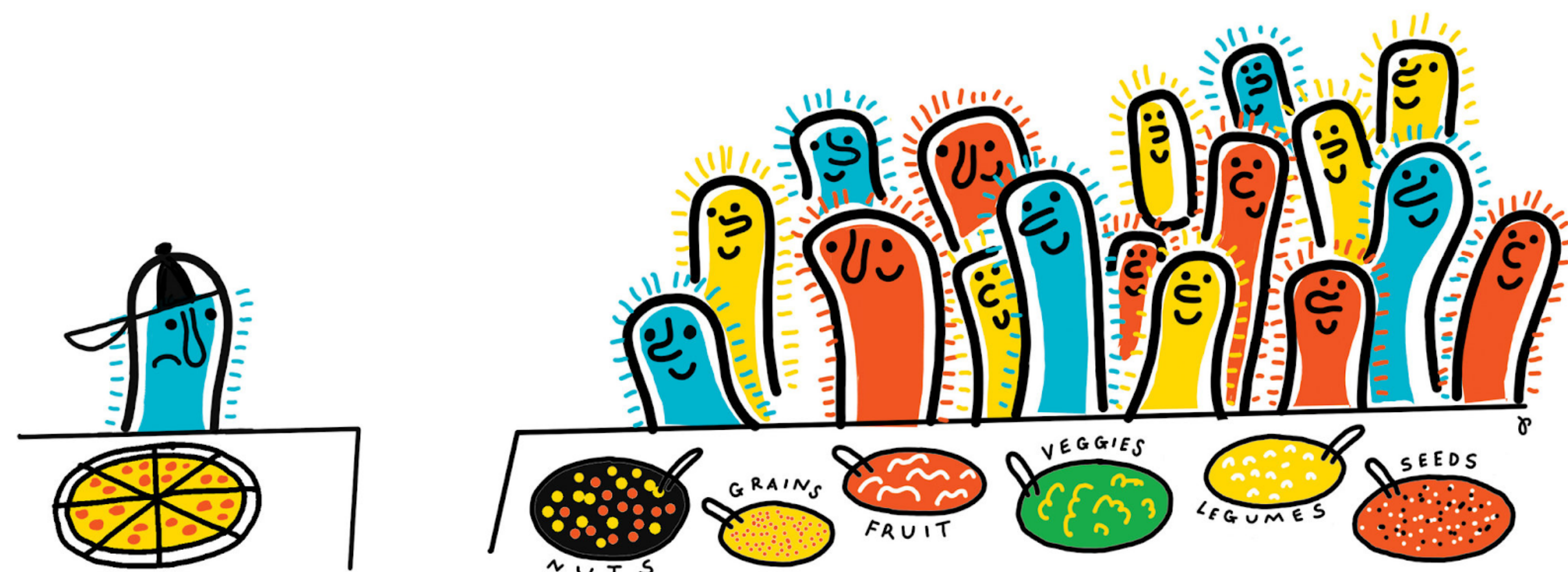


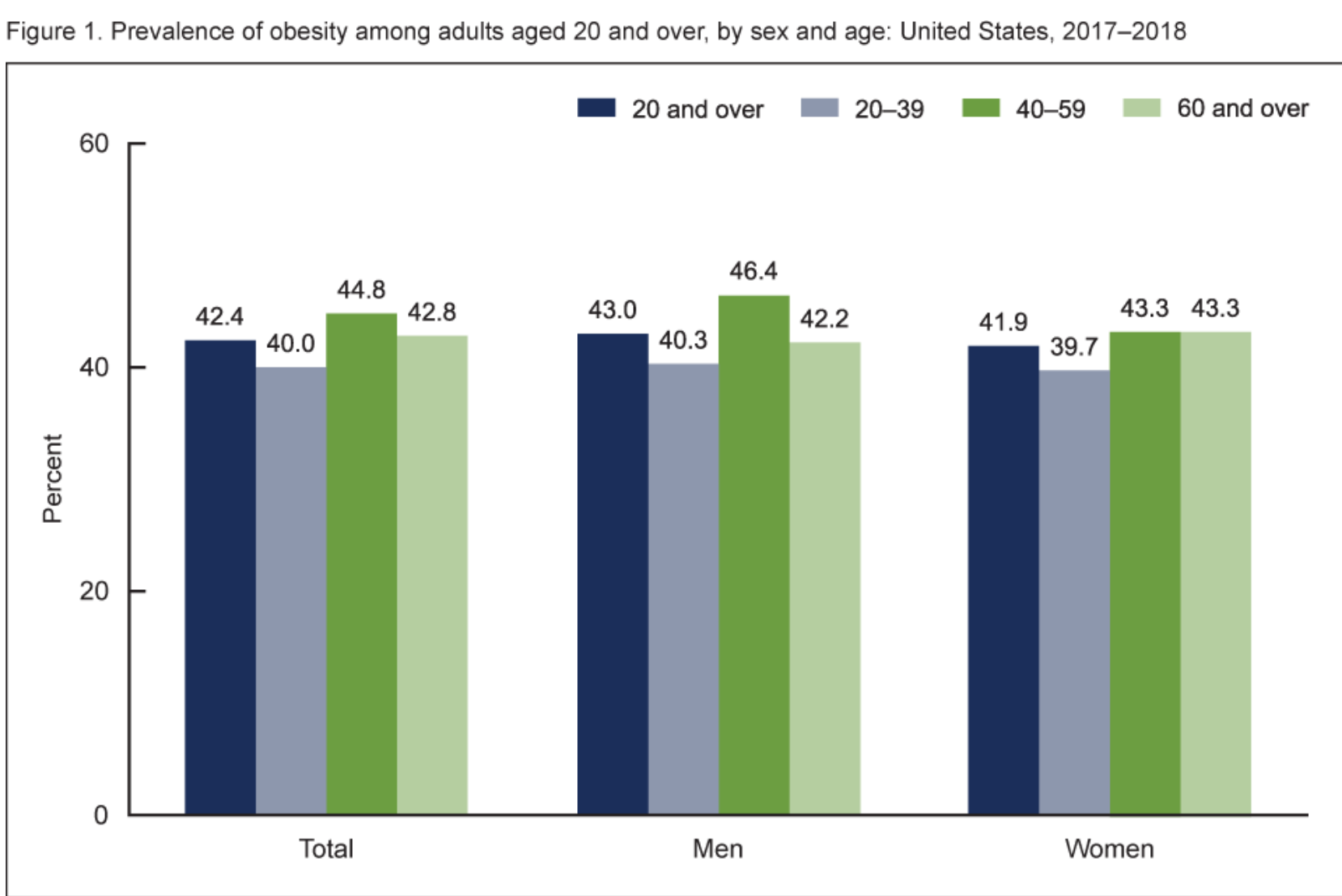
Fiber-Rich Foods Promotion Intervention in UCLA Student Population

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Background - Obesity

Obesity is becoming more prevalent in the U.S., affecting nearly 40% of American adults (Hales et al., 2017). Obesity increases the risk of developing nonalcoholic fatty liver disease and type 2 diabetes, which increase risk of premature death (Bray, 2004). How to prevent overweight and obesity has become an urgent global issue.



Fiber-Rich Foods

One promising, under-appreciated approach is to increase daily consumption of both the quantity and diversity of fiber-rich foods, minimally processed. Increasing scientific evidence supports the gut microbiome playing a central role in obesity risk. High gut microbiome diversity and high-fiber intake are shown to be correlated, and are inversely related to weight gain in adults (Menni, 2017). However, despite the consistent recommendation from the Dietary Guidelines for Americans that Americans consume more fiber-rich foods, especially minimally processed fruits and vegetables, the average amount of daily dietary fiber intake of Americans, 16.5 grams, remains significantly lower than recommended for either adult women (28 g/day) or men (34 g/day) (USDA, 2016). It is clear that mere exposure to supportive information is not enough to induce adults to eat more fiber-rich foods.



Health Belief Model-Based Intervention to Promote Intake of Fiber-Rich Foods

One psychology model that has been applied with varying success to influence health behaviors is the **Health Belief Model**. According to the model, health motivation, self-efficacy, perceived susceptibility, and perceived disease severity are four components to initiate health-related behavior changes (Rosenstock 1988). As there is little research utilizing this model to change eating behaviors, I want to apply the Health Belief Model to improve the diversity and quantity of UCLA students' daily consumption of fiber-rich foods. This is a relatively novel approach in nutrition education with a focus on the affective process of making food choices. Ultimately, I expect my research to provide insights into the process by which adults wanting to avoid excess weight gain can learn to eat more fiber-rich foods that stimulate satiety-signaling and facilitate long-term healthy weight control. These findings should help communities and governments design more effective nutrition programs and policies that will lower the rate of obesity nationally and globally.

Methods

Participants: UCLA students

Design: Quasi experimental design

- Experimental treatment: exposure to intervention
- Control group: no exposure to intervention

Materials:

- Intercept survey; Table tents; Spotlight screen

Procedure:

- Initial data collection: survey students' understanding of dietary fiber, their daily fiber intake, and their motivation to eat fiber-rich food
- Intervention period: table tents and spotlight screen that contain educational information about fiber-rich food will be displayed at Bruin Plate for a duration of 4 weeks
- Final data collection and analysis: provide same intercept questions to students and see if there are significant changes

Measure:

- Students' response of survey questions

Current Status

- Conducted literature reviews about the benefits of dietary fiber on microbiota and the importance of maintaining gut microbiome healthy
- Developed intercept survey questions that will be distributed to UCLA students living in dormitories
- Established collaboration with Carole, the Nutrition Education Coordinator at UCLA Dining Services, to design table tent used as the intervention
- Built partnership with UCLA Dining Services marketing team to display table tents and Spotlight screen about dietary fiber and gut microbiota at Bruin Plate for the duration of one month

Next Steps

- Distribute the baseline intercept survey before the display of table tents and Spotlight screens and distribute follow-up intercept survey after the display
- Analyze data to assess the effectiveness of the intervention strategies and draw conclusions from results

References

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