

First-year Residents Students' Perceptions of Single-use Water Bottles

SUSTAIN 4S06 – Leadership in Sustainability

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Student research team members holding reusable bottles.

Photo credit: Ashley Low



Overview

The excessive waste of plastic water bottles releases approximately 400 million tonnes of greenhouse gas emissions into the atmosphere year [1]. Many Canadian post-secondary institutions have banned the sale of plastic water bottles for health, equity, and environmental reasons [2]. Despite an appreciation for water refill stations due to its convenience and accessibility [3], 80% of McMaster students living in residence purchase single-use water bottles frequently [4]. While previous studies note a sampling bias towards refilling adopters, we investigated the views of first-year students living in residence who regularly use single-use water bottles. The goal of our project was to understand students' perceptions of single-use water bottles and how we might promote a culture of sustainability at McMaster.

Objectives

1. Interview students regarding attitudes and perceptions towards single-use water bottles.
2. Understand students' perceptions and resulting behaviours through thematic analysis.
3. Share findings and recommendations with relevant stakeholders.

Reporting

To achieve our first objective, we recruited participants from the lobby of Mary Keyes and interviewed 20 first-year students living in residence. We asked open-ended questions such as, "What are your thoughts on the campus refill stations?" They received a \$10 coffeehouse gift card incentive.

To achieve our second objective, we analyzed interview data and identified two overarching themes – pros of single-use plastic water bottles and determinants shaping student choices. Students appreciate the convenience of single-use bottles, with one participant describing how "you don't have to go through the hassle of...filling it up," and another stating "it's easy to carry. You can find it everywhere too." Interestingly, many participants describe feeling a lack of agency in making sustainable choices. One participant stated, "I have to use my meal card anyway, so I have to buy plastic water bottles." These perspectives allowed us to understand students' behaviours.

To achieve our third objective, we shared our findings with the Bring Your Own Bottle (BYOB) Working Group. We presented recommendations to modify meal combo options to reduce the economic incentive of purchasing a beverage in a single-use bottle, combined with the provision of free and low-cost options for filtered water as well as informative signage at points of sale. These recommendations are in direct response to students' perceptions of feeling that there is a lack of reasonable options for sustainable alternatives. Ultimately advancing its sustainability goals, these recommendations have the added benefit of aligning with McMaster's goals for health and affordability for students.

Collaborators

We would like to extend our gratitude to our Community Project Champions, Monica Palkowski and Melissa Gallina for their continuous support, guidance, and encouragement. We also want to thank Dr. Kate Whalen for her guidance in conducting interviews, data analysis, and research report writing. In addition, we thank our teaching assistant Madison Mote for supporting us. Thank you to the BYOB Working Group for providing us with a platform to share our findings and recommendations. Finally, we thank all our participants for sharing their thoughts with us. The project would not have been possible without them.