Notice of the Final Oral Examination
for the Degree of Master of Science

of

NICOLE FETTERLY

BSc Hons (University of British Columbia, 2007)
BA Hons (Anthropology, 1999)

“Altering the Cafeteria Environment to Improve Health: a pragmatic observational trial of nudges and a marketing campaign to increase salad purchasing by first-year students”

Department of Exercise Science, Physical and Health Education

Wednesday, December 10, 2020
10:00am (PST)
Remote Defence

Supervisory Committee:
Dr. Patti-Jean Naylor, Department of Exercise Science, Physical and Health Education, University of Victoria (Supervisor)
Dr. Ryan Rhodes, Department of Exercise Science, Physical and Health Education, UVic (Member)

External Examiner:
Dr. Meghan Day, Department of Population and Public Health, Ministry of Health

Chair of Oral Examination:
Dr. Michael Bodden, Pacific and Asian Studies, UVic

Dr. Stephen V. Evans, Acting Dean, Faculty of Graduate Studies
Abstract

Obesity is a global epidemic with significant long term mental and physical health complications, as well as societal costs from loss of productivity and health care expenditures. Obesity is grounded in the complexity of eating behaviour, which develops over many years and is a product of our food environment as well as our social influences. First-year undergraduate students living in residence and on meal plans have lower vegetable intake than is recommended for optimal health and disease and obesity prevention. They also gain on average 2-3 kg in their first year due to factors like stress, increased autonomy in food choices and the food environment they face. With more than 2 million Canadian young adults attending post-secondary institutions and the importance of diet to overall health and wellness, building healthy eating habits and preventing weight gain during this life transition is an important public health priority.

Nudges or choice architecture interventions aim to encourage public health goals without removing choice for participants. Nudging seems to have a stronger effect in deterring the choice of unhealthy foods over motivating the choice of healthy foods. Conversely, pricing strategies where healthy foods are subsidized appear effective. Many intervention studies have been conducted in cafeterias with young adults but there was a need for studies that compared the impact of nudge interventions against economic strategies on the purchase of vegetables.

This study occurred in the main cafeteria serving undergraduate students on meal plans at the University of Victoria (n=1700). A longitudinal, quasi-experimental, single case ABACA research design was conducted and salad bar sales data was tracked. After a baseline period (A), an economic incentive was provided in the form of a loyalty card (B), this was then withdrawn for a second baseline period (A), followed by a cognitive and affect nudge implemented in the form of tent cards and sandwich boards with reasons to eat more vegetables conveyed with eye-catching, colourful graphics and messaging (C) and finally a third baseline measure (A) after withdrawal of the cognitive nudge.

The results showed that small economic incentives and nudges were not enough to have an impact on salad bar sales and that they declined throughout the term with too much overlapping data to establish an intervention effect. Larger economic incentives, behaviour or placement nudges and a focus on deterring unhealthy foods may have had a larger effect but these intervention options were not selected by food service management. It may be that small changes to an individual’s microsystem need to be supported by further changes at the level of the meso, macrosystem or exosystem through university-level intervention in food service operations or government policy or regulation.