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

of

MATHEUS MISTURA

BSc (Universidade Regional de Blumenau, 2012)

“Examining the Use of Food Cues: Nudge based approaches to increase the purchase of vegetables among young adults in B.C.”

School of Exercise Science, Physical and Health Education

Thursday, November 23, 2017
9:00 a.m.
McKinnon Building
Room 0025

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

External Examiner:
Dr. Ulrich Mueller, Department of Psychology, University of Victoria

Chair of Oral Examination:
Dr. Lynne Young, School of Nursing, UVic

Dr. David Capson, Dean, Faculty of Graduate Studies
Abstract

Vegetable intake is an important contributor to overall health, as they are characteristically high in nutrient density and fibre and low in caloric density. In the student transition from high school to the university years vegetable consumption tends to deteriorate, potentially influencing both immediate and longer term health outcomes. Based on the recognition in behavioral economics that environmental factors can influence behavior, either explicity or implicitly, nudge interventions where environmental factors are manipulated to influence choice have emerged as potential contributors to public health behavior change goals. Evidence of their impact is mixed and the breadth of strategies and settings in which they are tested are limited. It was important to test nudge strategies with young-adults in real world cafeteria settings. The purpose of this quasi-experimental study was to evaluate the impact of a contextually feasible evidence-informed nudge intervention on food purchasing behavior in a University residence cafeteria. A priming nudge in the form of fresh vegetables offered at the steam/hot food table, combined with a salience nudge (signage) was tested.

A single-case A-B-A-B design was adopted over 12 weeks in the fall term with 2 periods of baseline (A phase) and 2 periods of intervention (B phase). Staff portion serving were observed visually during the lunch and dinner service (4 hours total) and the proportion of hot table purchases with a vegetable serving added was the outcome variable. To evaluate the impact of the intervention visual inspection was used and supported by an analysis of: trends, measures of central tendency (mean, medians), overlap in data points, variability and latency. Wilcoxon Signed Ranks test was also used to determine if proportions differed between phases. Visual inspection of trends showed a positive change in trend when the Nudges were in place, although this was more apparent for the females and during the first presentation of the nudges, The more indepth analysis showed lack of stability in the baseline, high variability in each phase and a high percentage of overlapping data. As a result of the high variability and lack of visible trend changes in the second A-B phase the visual inspection results should be reviewed with caution.

A latency effect was also not readily apparent. Wilcoxon Signed Ranks test showed that proportions of vegetables served were not significantly associated with phase overall and for either females or males only. In this case, the nudge intervention did not impact the vegetable purchasing patterns of university students. Observations and staff anecdotes highlighted other environmental conditions like menu choices, staff encouragement, timing in the term and student finances that may also be influencing choices. This research adds to a very few number of interventions testing the application of nudge theory in a real world setting. More research in real world environments is needed.