



University
of Victoria

Graduate Studies

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

of

MEGAN PERDEW

BSc (Pennsylvania State University, 2017)

**“A Quasi-Experimental Trial Addressing Family Eating Practices using
an Interactive Family-Based Healthy Weights Intervention:
Short Term (10-Week) Outcomes”**

School of Exercise Science, Physical and Health Education

Wednesday, December 4, 2019

10:00 A.M.

McKinnon Building

Room 0025

Supervisory Committee:

Dr. Patti-Jean Naylor, School of Exercise Science, Physical and Health Education, University of Victoria (Co-Supervisor)

Dr. Sam Liu, School of Exercise Science, Physical and Health Education, UVic (Co-Supervisor)

Dr. Ryan Rhodes, School of Exercise Science, Physical and Health Education, UVic (Member)

External Examiner:

Dr. Guy Faulkner, School of Kinesiology, University of British Columbia

Chair of Oral Examination:

Dr. Slim Ibrahim, Department of Mathematics and Statistics, UVic

Abstract

Background: Evidence-based blended family interventions, those that incorporate both in-person group sessions and on-line sessions, remain understudied; specifically, there is insufficient research that investigates psychosocial and behavioural nutrition outcomes. Thus, researchers and stakeholders across BC worked together to develop the Family Healthy Living Program (FHLP), an evidence-informed blended family-based intervention that addressed parent feeding practices through parent and child behavioural and psycho-social factors (e.g. attitudes, self-efficacy) associated with HE using the Multi-Process Action Control (M-PAC) framework and behaviour change techniques.

Objective: To evaluate the efficacy of the FHLP in improving secondary nutrition outcomes, which include self-reported behavioural and psycho-social measures for parent feeding practices and child dietary behaviours.

Methods: Municipalities across BC participated in this 10-week quasi-experimental wait-list control trial. Participants were parents (n=59) and their children (n=64) aged 8-12 years who had a BMI \geq 85th percentile for age and sex. Families were allocated to the intervention or a wait-list control group. The FHLP provided a blended intervention consisting of 10 weekly sessions, 4 community activities (14 in-person opportunities) and an online platform with interactive activities. Furthermore, behaviour change techniques introduced during program sessions matched the proposed target constructs of M-PAC. Secondary parent and child nutrition outcomes were evaluated using validated self-report questionnaires to measure: parent feeding practices, the home food environment, parental attitudes and perceived control for supporting child's HE, parent/family healthy eating (HE) habits and identity, regulation of child's HE behaviours, and parents' cooking self-efficacy, as well as children's dietary behaviours, attitudes, outcome expectations and self-efficacy related to HE. Researchers followed an intention-to-treat protocol for participants who did not complete follow-up measures. Repeated measures analysis of variance (ANOVA) (2x2) was used to compare pre and post measures between intervention and waitlist control participants.

Results: Fifty families completed the study. Relative to wait-list controls, regulation of child's HE approached significance (mean= 13.88, SD= 3.66, $d= 0.549$, $p= 0.051$) and medium effects sizes were detected for parental attitudes for supporting child's HE (mean= 5.97, SD= 0.957, $d= 0.514$, $p= 0.064$) and total parent support of child's HE (mean= 10.55, SD= 1.26, $d= 0.510$, $p= 0.066$) among parents in the intervention group at follow up. No significant between group changes in child nutrition outcomes were identified; however, over 50% of children in the intervention group either improved or maintained their fruit and vegetable intake over time.

Conclusions: Blended family-based interventions developed and evaluated according to behavioural theory and corresponding behaviour change techniques can improve parents' regulation of their child's HE and psycho-social determinants of total parent support of child's HE. Future research should investigate how theory-based, evidence-informed blended interventions can further influence family improvements in dietary behaviours and facilitate a home environment that supports children's HE behaviours.