



University
of Victoria

Graduate Studies

Notice of the Final Oral Examination
for the Degree of Doctor of Philosophy

of

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MSc (Memorial University, 2011)

BHSc (Western University, 2009)

**“Establishing an Exercise Habit in New Exercisers – A Randomized
Controlled Trial”**

Department of Exercise Science, Physical and Health Education

Monday, April 4, 2016

4:30 pm

David Turpin Building

Room A144

Supervisory Committee:

Dr. Ryan Rhodes, Department of Exercise Science, Physical & Health Education, University of
Victoria (Supervisor)

Dr. John Meldrum, Department of Exercise Science, Physical & Health Education, UVic (Member)

Dr. John Spence, Department of Physical Education & Recreation, University of Alberta (Outside
Member)

External Examiner:

Dr. Bob Grove, School of Sport Science, Exercise & Health, University of Western Australia

Chair of Oral Examination:

Dr. Noreen Frisch, Department of Nursing, UVic

Abstract

Exercise behavior has largely been studied via reflective social cognitive approaches. Emerging correlational findings have shown the independent prediction of habit, which represents automatic behaviour from stimulus-response bonds (cued and repetitive action) with exercise. Preliminary research suggests that habit during the preparation of exercise may be the most important predictor of enactment. An opposing view to habit is exercise variety which proposes that flexibility increases autonomy. Currently no experimental research has tested the effectiveness of incorporating habit or variety to promote exercise. The purpose of this study was to conduct a randomized-controlled trial to examine the promotion of preparation habit formation compared with control and variety groups on exercise behavior. New gym members (n=141) were recruited across Victoria, BC for this eight-week, three-arm randomized-controlled trial. Participants in the habit and variety groups attended their respective workshops and received a phone call booster follow-up at week four. An ANCOVA controlling for baseline exercise found the habit group to increase in exercise time compared to the control and variety group for both accelerometry (control $p < .05$; $d = .40$; variety $p = .07$; $d = .36$) and self-report (control $p < .05$; $d = .51$; variety $p < .05$; $d = .50$). The habit model found the habit group to engage in significantly more exercise consistency, cue use and demonstrated greater automaticity during preparation ($\eta^2 = .05$ to $.08$; $p < .05$). Future research is needed to replicate these findings and extend the duration of assessment to evaluate whether changes in exercise behavior are sustained across time.