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

of

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BSc (University of Alberta, 2015)

“Identity Crisis: A mixed methods examination of exercise identity
development using qualitative interviews and a feasibility randomized
trial”

School of Exercise Science, Physical and Health Education

Thursday, August 16th, 2018
10:00 a.m.
McKinnon Building
Room 155

Supervisory Committee:
Dr. Ryan Rhodes, School of Exercise Science, Physical and Health Education, University of Victoria
(Supervisor)
Dr. Joan Wharf Higgins, School of Exercise Science, Physical and Health Education, UVic (Member)

External Examiner:
Dr. Mark Beauchamp, Faculty of Kinesiology, University of British Columbia

Chair of Oral Examination:
Dr. Judith Anne Clarke, Department of Economics, UVic

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

**Background:** While the physical and mental health benefits of regular participation in physical activity (PA) are well-known, accelerometer data indicates up to 68% of adult Canadians are not meeting PA guidelines. Thus promoting PA is a priority. Clearly, regular exercise is an important means to acquire PA for many of the population. Much of the exercise promotion research in this area is conducted under the guide of a social cognitive framework, and does not take into consideration reflexive, sub-conscious processes of behaviour change such as identity. Exercise identity has been linked to increased frequency, duration, and intensity of PA participation. However, there is limited work exploring the antecedents of developing an exercise identity, or ways in which an intervention could target antecedent themes in order to aid in the development of an exercise identity.

**Objective:** The purpose of this research was two-fold. Firstly, in Study 1, I explored the lived PA experience and how experiences in youth relate to exercise identity in adulthood. Secondly, in Study 2, I explored the feasibility of an identity-based intervention, using theory and emergent themes from Study 1 to guide my intervention targets.

**Methods:** In Study 1 and Study 2, I recruited male and female participants from the undergraduate population at the University of Victoria. I used mixed methods throughout.

**Study 1** – I conducted semi-structured interviews to collect data on participants’ PA experiences, using a pragmatic qualitative framework to guide my research process. I was interested in both past and present experiences which may have contributed to the development of participants’ current exercise identities. I used thematic analysis and open coding to determine core themes.

**Study 2** – I conducted a six week, randomized feasibility trial in order to explore the feasibility of an intervention designed to increase a person’s exercise identity. Participants were randomly assigned to a standard social cognitive intervention group (education materials, goal-setting skills) or an augmented identity formation group (receiving the same information as the standard group in addition to educational and applied strategies for increasing identity). At the conclusion of the study, I conducted exit interviews with members of both groups to get more detailed information about the acceptability and enjoyment of the interventions.

**Results:** Study 1 – I recruited 10 participants with varying exercise identity strengths (4 high, 3 medium, 3 low). Five themes emerged as related to the development of an exercise identity, including skill, enjoyment, variety, extracurricular activity participation, and sport ownership. Passion also emerged as a theme in high and medium identifiers, but not low identifiers.

Study 2 – I recruited 20 participants and randomized them to either the standard or augmented intervention group with a 1:1 ratio. The recruitment rate was 26%, retention was 90%, and the mean satisfaction score for the standard intervention group was 2.69 (SD = 0.62), and the augmented intervention group was 2.83 (SD = 0.40). Both the augmented intervention and standard intervention groups increased their PA levels ($\eta^2 = 0.25$), and exercise identity levels ($\eta^2 = 0.43$), however interaction effect sizes were small ($\eta^2 \sim 0.02$), indicating no greater change in the augmented intervention group compared to standard intervention group.
**Discussion:** Study 1 – The emergent themes both reflect existing literature (social cognitive models, self-definition model, and multi-process action control) in terms of relationship to PA and antecedents to identity development. Recommended future intervention targets include emphasizing enjoyment, focusing on feelings of skill/competence, and increased exposure to a variety of PAs. Additionally, passion as an indicator for an exercise identity may be a goal of future identity-based research.

Study 2 – Both control and intervention group participants ranked the study highly in terms of feasibility and acceptability. Intervention group participants felt more connected to the researcher and engaged more with materials, indicating satisfaction with the content covered over and above that of the control group. Both intervention and control groups saw increases in PA levels and exercise identity scores, however the effect sizes for between group differences were low. A full-scale trial is recommended in order to more accurately analyze the effects of this intervention.