



Becoming a regular exerciser: Examining change in behavioural regulations among exercise initiates[☆]

Wendy M. Rodgers^{a,*}, Craig R. Hall^b, Lindsay R. Duncan^b, Erin Pearson^b, Marcia I. Milne^b

^a Faculty of Physical Education and Recreation, University of Alberta, Edmonton, AB, Canada T6J 6N2

^b School of Kinesiology, University of Western Ontario, London, ON, Canada N6A 3K7

ARTICLE INFO

Article history:

Received 19 August 2009

Received in revised form

11 April 2010

Accepted 14 April 2010

Available online 21 April 2010

Keywords:

Motivation

Self-determination

Exercise adherence

ABSTRACT

Objective: A large body of research evidence is accumulating describing aspects of motivation that are associated with persistence with exercise behavior. Relatively little is known, however, about the process of becoming a regular exerciser. That is, how long does it take for the motivational profile of an initiate exerciser to become similar to the motivational profiles that have been associated with enduring exercise behavior?

Methods: This paper reports data of program completers from 4 longitudinal studies ($N_s = 60, 134, 38,$ and 84 respectively) describing change in four forms of motivational regulation proposed by self-determination theory among initiate exercisers and compares those initiates to two samples of long-term regular exercisers ($N_s = 202$ and 1054).

Results: The results indicate that patterns of self-determined regulation change over time in ways consistent with self-determination theory. Specifically, there are increases in identified and intrinsic motivation among initiate exercisers that appear to take place within 8 weeks.

Conclusions: Final values of identified and intrinsic motivation remain significantly lower than values observed for regular exercisers, even after up to 6 months of exercise.

© 2010 Elsevier Ltd. All rights reserved.

Most Canadians do not exercise or do not exercise enough (Cameron, Craig, Stephens, & Ready, 2002; Katzmarzyk, Gledhill, & Shephard, 2000). Comparable to many other developed nations, data from the Canadian Fitness and Lifestyle Research Institute (CFLRI; 2005) have shown that 51% of the Canadian population is considered sedentary and only 24% of adult Canadians are classified as active on a regular basis. Yet the physiological and psychological health benefits of exercise are irrefutable and have been well documented in recent years (Melzer, Kayser, & Pichard, 2004; Meyers, 2008; Penedo & Dahn, 2005). These health benefits occur at both the individual (e.g., decreased risk of non-communicable diseases; improved psychological health) and societal level (e.g., increased workplace productivity; decreased absenteeism). Public health promotion campaigns typically focus on encouraging non-exercisers to begin exercise (e.g., Bauman, Madill, Craig, & Salmon, 2004).

Researchers have investigated the factors that contribute to the uptake and maintenance of regular physical activity (including

exercise) and those that have been identified include social, environmental, cultural and psychological factors (King, 2001; Burton, Turrell, Oldenburg, & Sallis, 2005). Hagger and Chatzisarantis (2008) argued that public health researchers have especially been interested in the psychological influences on exercise behavior because it is believed these can be manipulated through intervention to change behavior. Moreover, they suggested that theories of motivation, such as self-determination theory, are at the forefront of research investigating the psychological antecedents, mechanisms and bases for intervention in exercise settings.

Self-determination theory (SDT; Deci & Ryan, 2000, 2002; Ryan & Deci, 2000, 2001) posits a continuum of motivation from amotivation through external, introjected, identified and intrinsic motivation. The latter two forms of motivation are considered more self-determined in the sense that they are undertaken volitionally and represent core aspects of the self. On the other hand, external and introjected forms of motivational regulation represent controlled processes that can motivate behavior but elicit negative feelings such as guilt, contingent self-esteem, and shame concerning participation or lack of participation. Amotivation, as conceptualized in SDT, is the state of lacking the intention to act (Deci & Ryan, 2002).

[☆] Work presented here was supported by grants from the Canadian Institutes of Health Research and by the Social Sciences and Humanities Research Council.

* Corresponding author.

E-mail address: wendy.rodgers@ualberta.ca (W.M. Rodgers).

Self-determined motives are hypothesized to be underpinned by valuing (identified) and enjoying (intrinsic) activities as opposed to performing them for reasons of self-imposed pressure (introjected) or separable rewards (extrinsic) (Deci & Ryan, 2002). There is substantial research showing that people who report more self-determined motives also report more regular physical activity including exercise, as well as more positive physical and psychological outcomes of physical activity (and exercise) participation (e.g., Chatzisarantis & Hagger, 2007; Landry & Solomon, 2004; Mullen & Markland, 1997; Sebire, Standage, & Vansteenkiste, 2009; Standage, Sebire, & Loney, 2008; Wilson & Rodgers, 2002, 2004; Wilson, Rodgers, Fraser, & Murray, 2004). In contrast, there is minimal evidence concerning the motivational regulation of non-exercisers, although one might expect non-exercisers, and especially those that have no intention of starting to exercise, to exhibit low levels of self-determination, and possibly amotivation, toward exercise (Deci & Ryan, 2002; Ryan & Deci, 2001). People who are amotivated would be expected not to exercise because they do not value the activity, do not feel competent to do it, or do not believe that exercise would produce any valued outcomes such as improved appearance or health (Deci & Ryan, 2002).

In a recent study, Hall, Rodgers, Wilson, and Norman (2010) investigated the motivational regulations of regular exercisers, non-exercisers who intended to start exercising, and non-exercisers who did not intend to start exercising. In general, non-intenders were the least self-determined and regular exercisers the most self-determined, with the intenders in between. Furthermore, the patterns of motivation reported within each group were not consistent, suggesting that the forms of regulation may develop independently, and therefore might also be expected to influence behavior independently among individuals with different behavioural experiences.

Since most of the research has focused on regular exercisers, the motivational profile of these participants is well established with more self-determined regulations (identified, intrinsic) being endorsed most strongly (e.g., Ingledeu, Markland, & Sheppard, 2004; Markland & Ingledeu, 2007). In a study examining the relationship between motivational regulations and exercise imagery, Wilson, Rodgers, Hall, and Gammage (2003) found regular exercisers endorsed identified regulation the most, followed closely by intrinsic regulation. Introjected regulation was endorsed considerably less than these more self-determined types of motivation, and extrinsic regulation was endorsed the least. A similar pattern among the various regulations was reported by Thøgersen-Ntoumani and Ntoumanis (2006); identified regulation was endorsed most by the exercisers in the study, with intrinsic motivation rated slightly lower than identified, and the ratings for both introjected and external regulations being lowest. In general, then, it is apparent that regular exercisers tend to endorse self-determined regulations more strongly than controlled regulations. It also appears that non-exercisers endorse less self-determined regulations (extrinsic and introjected) to a higher degree than do exercisers, and endorse more

self-determined regulations (identified and intrinsic) to a lesser degree than regular exercisers. It remains unknown, however, what the pattern of change is among the forms of self-regulation as non-exercisers initiate and work toward becoming regular exercisers. It can be assumed that motivation must become more self-determined over time to support the tenets of SDT (Deci & Ryan, 2002). If regulation remains controlled (extrinsic, introjected) then exercise behavior should be inconsistent (at best) or given up.

The first purpose of this research was to examine the pattern of change in the forms of self-regulation over courses of exercise with a broader goal of understanding how self-regulation changes over the pursuit of an exercise program and when exercise initiates might show motivational profiles known to be associated with long-term exercise adherence. The second purpose of this study was to examine differences between regular exercisers and exercise initiates in levels of endorsement of four forms of self-regulation.

Methods

To achieve these purposes, data from six different studies were analyzed or reanalyzed (secondary analysis). All study procedures were approved by a University research ethics board. Two of these studies (Studies 1 and 2) provide descriptive data for the four types of motivational regulation for regular exercisers (defined as individuals who have been exercising a minimum of three times per week for a minimum of 6 months). Initiates were defined as individuals beginning exercise who, for at least the past 6 months, had only exercised a maximum of once per week. Initiates are described in Studies 3–6. These criteria were chosen on the basis of the Canadian Physical Activity Guide.

First, the pattern of change in each of the four types of motivational regulation over the times assessed in each longitudinal study of initiates was examined. Then, the levels of endorsement of extrinsic, introjected, identified and intrinsic motivation were compared between regular exercisers and exercise initiates. The observed levels of each variable for the regular exercisers were compared to the levels for the initiates observed at the final point in their exercise programs; the levels finally achieved by the initiate exercisers. The details of the sample characteristics and exercise program descriptors for all six studies are presented in Table 1.

Study 1 – regular exercisers

These data were drawn from a study by Hall et al. (2010) examining the associations among different psychological variables in exercisers and non-exercisers who either intended or did not intend to begin exercising in the near future. For the purposes of the study reported here, only the data from the exercisers is included. The data from the non-exercisers were excluded because of our interest in changes in motivational regulations of exercise initiates and this study was cross-sectional and did not consider such changes. A purposive sample representing the three targeted

Table 1
Demographic characteristics of six study samples and study exercise interventions.

| | Type of exerciser | N Final (included in this analysis) | n Males/ n Females | Age Mean (SD) | METS Mean (SD) | BMI Mean (SD) | Type of program | Program length |
|---------|-------------------|-------------------------------------|-----------------------|---------------|----------------|---------------|--|----------------|
| Study 1 | Regular | 202 | 101/101 | 43.49 (13.42) | 37.36 (31.53) | NA | | |
| Study 2 | Regular | 1054 | 460/594 | 24.15 (9.61) | 69.71 (39.65) | 27.70 (6.23) | | |
| Study 3 | Initiate | 60 | 12/48 | 22.95 (7.01) | 23.45 (25.93) | NA | 30 min cycling 3×/week | 10 weeks |
| Study 4 | Initiate | 134 | 30/104 | 46.76 (9.11) | 12.5 (11.67) | 30.76 (6.57) | Either cardio/fitness 3×/week or walking daily | 16 weeks |
| Study 5 | Initiate | 38 | 0/38 | 35.26 (7.17) | 10.84 (8.77) | 30.03 (5.43) | Cardio/fitness 3×/week | 18 weeks |
| Study 6 | Initiate | 84 | 24/60 | 50.36 (9.38) | 7.38 (1.92) | 29.77 (5.35) | Cardio/fitness 3–4×/week or walking daily | 24 weeks |

Note: NA = not available.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات