Body Image 26 (2018) 10–18

Contents lists available at ScienceDirect

Body Image

journal homepage: www.elsevier.com/locate/bodyimage

Do exerciser weight status and perceived motivation predict instructors' motivation and beliefs about the exerciser? A test of motivation contagion effects

Nikos Ntoumanis[a,*], Michelle D. Guerrero[b], Courtney Gadeke[a], Cecilie Thøgersen-Ntoumani[a]

[a] Physical Activity and Well-Being Lab, School of Psychology, Curtin University, GPO Box U1987, Perth, WA 6845, Western Australia, Australia
[b] Department of Kinesiology, University of Windsor, 401 Sunset Ave. Windsor, Ontario, N9B2L7, Canada

ARTICLE INFO

Article history:
Received 23 November 2017
Received in revised form 18 May 2018
Accepted 18 May 2018

Keywords:
Motivation contagion
Communication style
Self-determination theory
Fitness professionals
Weight bias

ABSTRACT

We examined how fitness professionals' perceptions of a hypothetical exerciser's motivation and weight status impacted the professionals' motivation to instruct, perceived effectiveness of different interpersonal behaviors toward the exerciser, and beliefs about the exerciser's efficacy to overcome barriers to exercise. Results of a 2 (autonomous vs. controlled exerciser motivation) x 2 (normal weight vs. overweight exerciser) between-subjects experimental design showed that fitness professionals ($N = 134$) were more autonomously motivated to instruct, perceived autonomy-supportive behaviors as more effective, and had stronger beliefs regarding the exerciser's efficacy when the exerciser was portrayed as having autonomous motivation, compared to controlled motivation. Fitness professionals reported higher levels of controlled motivation to instruct and perceived controlling behaviors as more effective when presented with the overweight exerciser, compared to the normal weight exerciser. Our findings suggest that perceptions of exercisers' motivation and body weight can influence fitness professionals' interactions with and beliefs about their clients.

1. Introduction

An individual's body weight can have a profound impact on others' behaviors toward and beliefs about that individual; for instance, overweight and obese individuals report experiencing weight-based discrimination, stigmatization, and unjust treatment from educators, employers, and health-care professionals, including fitness professionals (Puhl & Heuer, 2009). These weight-stigmatizing attitudes within the exercise context may negatively affect the quality of service fitness professionals provide, such as their interpersonal styles of communication. These styles used by individuals in position of authority or expertise are also influenced by their perceptions of the motivation of the individuals they interact with (Ntoumanis, Quested, Reeve, & Cheon, 2018). For instance, exercisers' intrinsic reasons for engaging in exercise (e.g., enjoyment) can positively impact fitness professionals' beliefs about the exerciser and result in the use of a supportive communication style by the instructor (Ng, Thøgersen-Ntoumani, & Ntoumanis, 2012). Our goal in the current study was to explore whether fitness professionals' motivation to instruct, perceptions of effective communication style, and beliefs about the client's efficacy to overcome barriers to exercise participation were influenced by perceptions of their clients' motivation to exercise and body weight.

Our study was grounded in self-determination theory (SDT; Deci & Ryan, 1985; Ntoumanis et al., 2018) as this theory is concerned, amongst other things, with how significant others' communication style can facilitate or impede human motivation. Interpersonal styles within SDT are typically characterized as being either *autonomy-supportive* or *controlling behaviors* (Deci & Ryan, 1985), although more recently the broader terms 'need-supportive' and 'need-thwarting' have been, respectively, used as such behaviors encompass the support or thwarting of multiple needs (Ryan & Deci, 2017). For example, fitness professionals who engage in autonomy-supportive behaviors offer meaningful choices, provide rationales for task engagement, promote opportunities to make volitional choices, and acknowledge clients' feelings. Conversely, fitness professionals who exhibit controlling behaviors use coercion, criticism, punishment, and task-contingent rewards to

* Corresponding author.
E-mail addresses: Nikos.Ntoumanis@curtin.edu.au (N. Ntoumanis), guerrerm@uwindsor.ca (M.D. Guerrero), courtney.gadeke@student.curtin.edu.au (C. Gadeke), C.Thogersen@curtin.edu.au (C. Thøgersen-Ntoumani).

https://doi.org/10.1016/j.bodyim.2018.05.001
1740-1445/

manipulate how their clients feel, think, and behave (Edmunds, Ntoumanis, & Duda, 2007). Researchers drawing from SDT have shown that autonomy-supportive behaviors are associated with physical activity participation (Kinnafick, Thogersen-Ntoumani, Duda, & Taylor, 2014), positive mental health outcomes (e.g., Rouse, Ntoumanis, Duda, Jolly, & Williams, 2011), and autonomous motivation toward physical activity (e.g., Moustaka, Vlachopoulos, Kabitsis, & Theodorakis, 2012; Ntoumanis, Thøgersen-Ntoumani, Quested, & Hancox, 2017). While fewer studies have focused on outcomes of controlling behaviors in physical activity domains, existing research has shown that controlling behaviors increase controlled motivation and decrease psychological need satisfaction (e.g., Moustaka et al., 2012; Ng, Ntoumanis, Thøgersen-Ntoumani, Stott, & Hindle, 2013).

According to Ryan and Deci (2017), an individual's motivation toward an activity can be distinguished in terms of the degree to which it represents autonomous or controlled reasons for behavioral engagement. Individuals who are autonomously motivated perform activities out of inherent interest, enjoyment, and satisfaction (*intrinsic motivation*), or because the activities are congruent with their values and beliefs (*integrated regulation*), or because the activities offer personally valued outcomes (*identified regulation*). In contrast, individuals with controlled motivation engage in activities to avoid inner conflict or to attain contingent self-worth (*introjected regulation*), or as a result of external pressures, punishments, or rewards (*external regulation*). A plethora of researchers have documented positive relations between autonomous forms of motivation and exercise persistence (Teixeira, Carraca, Markland, Silva, & Ryan, 2012) and efficacy to overcome exercise barriers (Thøgersen-Ntoumani & Ntoumanis, 2006). In contrast, controlled motivation has been associated with reduced exercise participation (e.g., Ingledew & Markland, 2008) and symptoms of exercise dependence (Edmunds, Ntoumanis, & Duda, 2006).

1.1. Motivation contagion

Stemming from SDT, motivation contagion is a term used to describe how perceptions of others' motivation regulation toward an activity can positively or negatively influence the perceiver's own motivation regulation toward the same activity (Wild & Enzle, 2002). Perceptions of others' motivation may influence one's interpersonal style, especially in dyadic hierarchical relationships (e.g., fitness professional/client, teacher/student; Ntoumanis et al., 2018). Researchers testing motivation contagion in educational settings have shown that teachers exhibited autonomy-supportive behaviors when they perceived their students as more intrinsically motivated, and controlling behaviors when they perceived their students as less intrinsically motivated (i.e., controlled motivation; Taylor & Ntoumanis, 2007; Taylor, Ntoumanis, & Standage, 2008).

Few studies have tested the motivation contagion hypothesis in the exercise setting (Ng et al., 2012; Scarapicchia, Sabiston, Andersen, & Bengoechea, 2013). Ng et al. examined motivation contagion between trainee fitness professionals and a hypothesized obese client. Exercise science students were presented with a fictitious obese individual (target exerciser) displaying various motivation regulations (autonomous, controlled, or neutral) toward exercise adoption. Preliminary results showed no between-group differences regarding beliefs about weight loss and biases against obese individuals. However, a motivation-related bias was found. Specifically, students who were presented with the autonomously motivated exerciser had lower ratings of external regulation to instruct the exerciser, and greater beliefs that the exerciser would be able to overcome barriers to exercise. Furthermore, when presented with an autonomously motivated male (vs. female) exerciser, students perceived autonomy supportive behaviors (vs. controlling behaviors) as being more effective for motivating the exerciser, and invested more effort in identifying factors that would create the most effective training program for the exerciser.

While Ng et al. (2012) study was the first to examine the effects of motivation contagion on exercise instruction, there were limitations to their study. First, they did not control for social desirability and participants' dispositional tendencies for being autonomy-supportive vs. controlling. These variables are important to consider because self-report measures that assess personal attitudes and behaviors are prone to socially desirable response bias (Reynolds, 1982). It is likely that autonomous motivation to instruct and autonomy-supportive communication style might be prone to social desirability responding, given the adaptive nature of these constructs (i.e., internally endorsed reasons for action and interaction with others). The potential role of social desirability has been indicated in previous studies in the SDT literature, although the findings have been inconsistent (e.g., Roth, Assor, Kanat-Maymon, & Kaplan, 2007, found significant correlations between social desirability and student reports of motivation but not with teacher reports of motivation). Further, individuals differ in their dispositional tendencies to be autonomy-supportive or controlling when engaging with others, which can potentially influence ratings of perceived effectiveness of interpersonal behaviors (Deci, Connell, & Ryan, 1989), for instance those with higher disposition toward autonomy support might rate autonomy supportive strategies as more effective. Second, only a small proportion (10.98%) of the exercise science students in the Ng et al. study had professional experiences as fitness instructors. It is possible that the strength of motivation contagion effect may vary depending on the observer's experience with instructing (exercise science student vs. qualified fitness professional). Third, participants in the Ng et al.'s study were shown obese exercisers only (with different motivation regulations). Without a normal-weight comparison, it is difficult to determine whether the hypothetical exerciser's motivation or weight status influenced the instructors' ratings of their motivation to instruct, effectiveness of interpersonal behaviors, and beliefs about the efficacy of the exerciser to overcome barriers.

1.2. Weight bias

Ng et al. (2012) focused on obese exercisers because such individuals often feel stigmatized and experience weight-biased discrimination in various domains, including health care settings (Puhl & Heuer, 2009). Health-care trainees and providers from various specialty areas have reported several negative attitudes toward overweight and obese people. For example, exercise science students endorsed attitudes that overweight people are lazy, physically unattractive, buy too much junk food, and could lose weight if they really wanted to do (Chambliss, Finley, & Blair, 2004). Additionally, physicians have characterized overweight and obese patients as weak-willed, sloppy, and lazy (Foster et al., 2003). Within healthcare settings, researchers have shown that negative stereotypes of overweight and obese patients influence providers' quality of care (Phelan et al., 2015). Phelan et al.'s review on weight bias and stigma showed that providers' communication is less patient-centered (i.e., openness to patients' needs, beliefs, values, and preferences) with obese patients. A review of this body of research suggests that an individual's perceived weight status (normal weight vs. overweight) can impact others' behaviors toward and beliefs about that individual.

1.3. The current study

We examined whether a hypothetical exerciser's motivation (autonomous, controlled) and weight status (normal weight, overweight) influenced, independently and in interaction with each