



Editorial

Introduction to the special section on affective responses to exercise

In this issue of *Psychology of Sport and Exercise*, we have the pleasure to present a series of articles comprising a “special section” on affective responses to exercise. With the support of the editors of this journal, we decided to put together a special section on this topic for two main reasons. First, research on the affective responses that accompany participation in exercise is now approaching the half-century mark, a significant milestone that should be commemorated and reflected upon. Second, in a field like exercise psychology, which still reflects a heavy emphasis on cognitivist theories, we wanted to alert fellow researchers to the rapidly rising interest in affective constructs, including core affect, mood, and emotion (see Fig. 1). Over the five-year period from 2008 to 2012, the increase in the number of bibliographic entries in major scientific databases combining the terms “exercise” or “physical activity” with the terms “affective,” “emotion*” or “mood*” has outpaced the increase in entries with cognitive keywords (see Fig. 2). This may be an early indication of an unfolding paradigmatic shift that may substantially change the theoretical orientation and prominent research foci within exercise psychology in the next several years.

In an invited introductory article co-authored by the three guest editors, we attempt to identify the major directions that research on affective responses to exercise may take in the next half century. In doing so, we also illustrate the impressive diversity that this area of research has already exhibited, particularly over the last decade. Among the many emerging lines of inquiry, we highlight those investigating the role of affect in exercise behavior, the cognitive and biological mechanisms of affective responses, individual differences in affective responses, the treatment of addictions through the process of “hedonic substitution,” the possible links between affective responses and cognitive function, and

mechanisms underlying the sense of fatigue. As these topics demonstrate, research on affective responses to exercise is not only finding applications in fields of great societal importance, such as fatigue and addictions, but is also branching out to establish fruitful connections with several other scientific fields, including neuroscience, genetics, and personality research.

The four research articles that comprise this special section were all designed to build bridges between the study of affective responses and theories of exercise behavior. The value of this type of bridge-building research, particularly during a period of paradigmatic transition, cannot be overemphasized. After decades of indoctrination under the cognitivist paradigm, which relies on the assumption that human beings make behavioral decisions following the rational evaluation of information, most exercise motivation research has become insular, narrow, rigid, and resistant to change. Most students are not educated on theories of affect, mood, and emotion. Most reviews of the motivational forces behind human exercise behavior still fail to recognize the role played by such affective factors as energy, exhaustion, excitement, boredom, pride, shame, gratification, embarrassment, happiness, or fear. Most researchers are unlikely to read studies that fall outside the umbrella of the current paradigm and the four or five “orthodox” theories it comprises. Therefore, by building bridges that connect the study of affective responses to currently prominent theories, the articles in this section lay the groundwork for the function of affective responses within the human motivational system to be more broadly recognized, using terms that are common in the contemporary exercise-psychology vernacular.

Brian Focht examines affective responses to shorter and longer walks in a segment of the population exhibiting among the lowest levels of physical activity participation and adherence, namely chronically sedentary and overweight women. Importantly, he then explores the associations of these affective responses with constructs from social-cognitive theory (i.e., self-efficacy) and the theory of planned behavior (i.e., attitudes and intention).

David Williams and **Hollie Raynor** examine how perceived autonomy, a construct from self-determination theory, interacts with exercise intensity to influence affective responses. While evidence suggests that both higher intensity and the lack of autonomy (e.g., when the intensity is externally imposed) should have a negative impact on affective responses, disentangling these two influences presents some methodological challenges and this study makes significant steps in this direction.

Margaret Schneider and **Bethany Kwan** also examine connections between affective responses to exercise and constructs from self-determination theory. In a large sample of adolescents, they investigate whether affective responses to moderate and vigorous exercise bouts influence intrinsic motivation for exercise.

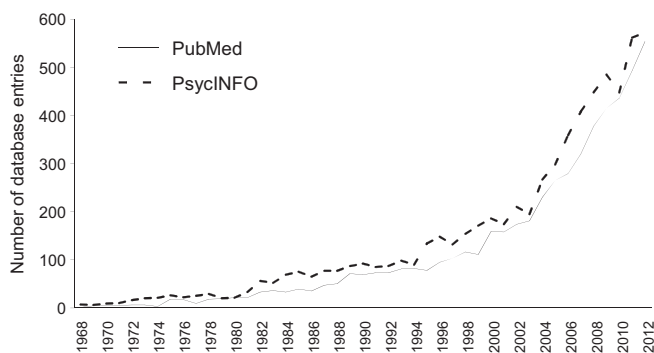


Fig. 1. The number of entries in the databases PubMed and PsycINFO retrievable with the query (exercise OR “physical activity”) AND (affective OR emotion* OR mood*) increased from almost zero in 1968 to nearly 600 in 2012.

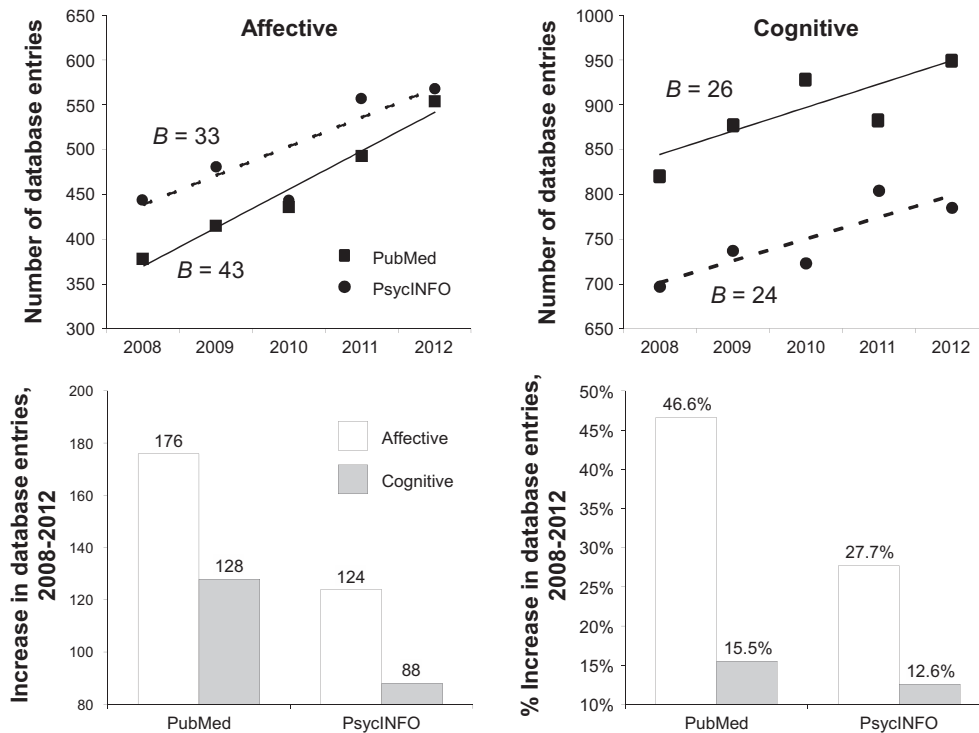


Fig. 2. Changes in the number of entries in the databases PubMed and PsycINFO retrievable with queries linking the keywords “exercise” or “physical activity” with affective and cognitive terms over the last five years (2008–2012). The affective terms were (affective OR emotion* OR mood*), whereas the cognitive terms were (“self-efficacy” OR “social-cognitive” OR attitud* OR “theory of planned behavior” OR “theory of reasoned action” OR transtheoretical OR “stages of change”). The annual rate of change was higher for the affective terms (upper left panel) than the cognitive terms (upper right panel) for both databases. The increase from 2008 to 2012 was higher for affective terms, both in absolute numbers (lower left panel) and as a percentage change from 2008 (lower right panel).

Importantly, using structural equation modeling, they also test whether this relationship is mediated by the satisfaction of the basic needs for competence, relatedness, and autonomy.

Kai Bellows-Riecken, Rachel Mark, and Ryan Rhodes using a qualitative approach, examine the perceived reasons for the formation of the affective component of attitude, a construct of increasingly recognized importance within attitudinal theories, such as the theory of planned behavior. Although pleasure, displeasure, enjoyment, and aversion are among the most frequently cited reasons for exercise participation and non-participation, the reasons why exercise might be perceived as “enjoyable, pleasant, exciting, or fun” or, conversely, “unenjoyable, unpleasant, boring, or miserable” have remained largely unexplored. This study is an important first step in delineating the factors that shape these experiences.

It is the hope of the guest editors that this special section will not only raise the visibility of research on affective responses to exercise even further but that it will also help usher in an era of tighter integration of conceptual models and closer collaboration between researchers representing cognitive and affective perspectives. Addressing the enormous challenge of physical inactivity will

require the transcendence of paradigmatic boundaries, as cogently exemplified by the articles in this special section.

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