

The Role of Relatedness in Physical Activity Motivation, Behaviour, and Affective Experiences: A Self-Determination Theory Perspective



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THE ROLE OF RELATEDNESS IN PHYSICAL ACTIVITY MOTIVATION, BEHAVIOUR, AND AFFECTIVE EXPERIENCES: A SELF-DETERMINATION THEORY PERSPECTIVE

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Introduction

Despite overwhelming evidence that physical activity is critical for health and the widespread dissemination of this message in the popular press, only 39% of Canadian adults are active enough to take advantage of the health benefits of physical activity (Craig et al, 2001). Most research examining predictors of physical activity focuses on either individual cognitive factors such as perceptions of competence, or broad social determinants such as socio-economic status, and does not adequately address "micro-environmental" influences, including interpersonal relationships (King et al, 2002).

Self-Determination Theory (Deci & Ryan, 1985, 1991) suggests that people experience more *self-determined* (or internally controlled) types of motivation when the activities they participate in make them feel that they have *autonomy* (the power to make their own choices), *competence* (the ability to effectively perform the behaviour), and *relatedness* (authentic social connections with others) in their physical activity environment. More self-determined types of motivation are desirable because they are associated with more positive experiences and continued motivation to participate. Even within this theoretical framework, however, there is limited research on how social factors contribute to motivation in physical activity. Furthermore, there is little or no research on how social factors contribute to motivation among adults involved in a team activity such as dragon boating, where participants must work together to achieve common goals.

Purpose

The aims of this project were to examine (1) whether various social relationship factors contribute to perceptions of relatedness; (2) whether relatedness, competence, and autonomy predict physical activity motivation, behaviour, and affective experience; (3) how these processes are influenced by gender and age across the adult lifespan; and (4) whether a coach-based intervention can effectively enhance social relationships, motivation, affect, and behaviour among adult dragon boaters. To address these aims, two separate studies were conducted.

Study 1

Study 1 addressed the first three purposes listed above using a cross-sectional survey of adult dragon boat participants.

Participants

558 adults from 75 different dragon boat teams

Age: 19-83 (average = 45.09)

Gender: 72% female

Ethnicity: predominantly Caucasian (70%) and Asian (24%)

Education: 88% had at least some post-secondary education

Socioeconomic Status: Average income of 4% above the provincial median (i.e., approx. \$22,880)

Average length of time in dragon boat: 3.62 years ($SD = 3.46$)

Average length of time on their current team: 2.54 years ($SD = 2.23$)

Average # practices per week: 1.93 ($SD = .66$)

Average # months per year practicing: 6.77 ($SD = 2.77$)

Procedures

Questionnaires were distributed to teams before or after a practice. Volunteers completed questionnaires and returned them to the researcher personally or via mail. Questionnaires contained measures assessing social support, peer acceptance, friendship quality, autonomy, competence, relatedness, motivation, positive and negative affect, physical self-worth, and physical activity, along with demographic information. Questionnaires were anonymous.

Results

What types of social relationship elements predict feelings of relatedness?

1. Peer acceptance (feeling accepted and liked by one's team-mates)
2. Amount of social support (the degree to which other people provide help or assistance to support one's dragon boating)
3. Positive friendship quality (the degree to which the relationship with one's closest friend in dragon boating is characterized by supportiveness, enhancement of self-esteem, loyalty, intimacy, having things in common, and companionship)
4. Social support network size (the number of people who provide you with social support)
5. Age was also a factor in predicting relatedness, with older participants experiencing higher levels of relatedness.

These findings suggest that all of these different aspects of social relationships contribute to people experiencing relatedness, or feeling authentic social connections with others in dragon boat.

Are autonomy, competence, and relatedness all important predictors of motivation among dragon boaters?

Yes, competence, relatedness, and autonomy all predict motivation. Competence and relatedness were the strongest predictors, supporting the hypothesis that feeling socially connected with others is an important predictor of motivation in dragon boat. Age and gender were also predictors, with women and older participants tending to have more self-determined motivation for dragon boat.

These findings suggest that feeling socially connected to others is an important contributor to motivation for dragon boat.

How do autonomy, competence, relatedness, and motivation link to outcomes such as emotions and behaviour of dragon boaters?

Autonomy, competence, relatedness, and self-determined motivation predict positive and negative affect (emotions), but only competence perceptions predict physical self-worth and physical activity. This means that people who feel that they have more choice and power over their dragon boat decisions, feel that they are good at dragon boat, feel that they have meaningful social connections to others in their dragon boat group, and participate for self-determined reasons (e.g., because they like doing the activity itself, or because it is important to them) have more positive and less negative experiences in dragon boat. However, feeling that they are good at dragon boating was the only thing that contributed to having positive perceptions of themselves physically, and being more physically active overall.

These findings suggest that people who score higher on autonomy, competence, relatedness, and self-determined motivation tend to have more positive experiences in dragon boat, and that those who feel that they are good at dragon boat feel better about themselves physically and are more physically active.

Major conclusions:

Social relationships play an important role in motivation for dragon boating among adults. More positive social relationships are associated with better motivational profiles, more positive experiences, and more physical activity among participants.

Study 2

Study 2 examined (1) whether having a coach use more cooperative types of activities in practice as opposed to more individually focused activities contributes to more positive social relationships, motivation, and outcomes among dragon boaters; and (2) whether changes in relatedness predict changes in self-determined motivation.

Participants

210 adults from 12 different dragon boat teams and their 14 coaches

Age: 19-66 (average = 32.08)

Gender: 60% male

Ethnicity: predominantly Asian (58%) and Caucasian (36%)

Education: 95% had at least some post-secondary education

Socioeconomic Status: Average income of 4% below the provincial median (approx. \$21,120)

Average length of time in dragon boat: 4.81 years ($SD = 3.96$)

Average length of time on their current team: 2.74 years ($SD = 2.73$)

Average # practices per week: 2.30 ($SD = .57$)

Average # months per year practicing: 7.68 ($SD = 1.41$)

Procedures

Coaches were contacted and provided with information about the study. Coaches who consented to participate had their teams randomly assigned to the cooperative or individualistic learning condition by the researcher flipping a coin. The researcher met with the team to explain the study, distribute consent forms, and answer questions. Approximately 1 week later, the researcher met with the team again so that those paddlers who volunteered to participate could complete the time 1 questionnaire. Coaches were then trained to carry out the learning condition assigned to their team. Coaches then used those procedures with their teams during practices for eight weeks. Details of the cooperative and individualistic procedures can be obtained upon request from the researcher (contact information is provided at the end of the report), but essentially the cooperative condition involved activities and drills that required interaction and communication among team members, while the individualistic condition involved activities and drills that had paddlers work independently and focus on their own needs and technique. At the end of the eight weeks, paddlers completed a second questionnaire.

Results

Did the intervention result in changes in social relationships, motivation, and affective outcomes?

Only in a very limited way. Peer acceptance increased over the 8 weeks similarly in both the cooperative and individualistic conditions. Because the changes were similar in both conditions it is impossible to determine whether both interventions had the same positive effect, or whether peer acceptance simply improved over time, unrelated to the interventions. Perceptions of autonomy, however, increased significantly in the individualistic condition, but remained unchanged in the cooperative condition, suggesting that activities that allow paddlers to focus on their own individual improvement enhances feelings of control and personal power in dragon boat.

These findings suggest that individualistic learning activities enhance perceptions of autonomy among dragon boaters. It is also possible that both cooperative and individualistic activities help enhance peer acceptance, but more research is needed to fully understand these effects.

Did changes in relatedness predict changes in self-determined motivation?

Yes, individual changes in perceptions of relatedness over the course of the eight weeks were associated with changes in self-determined motivation. This finding provides even stronger evidence than the finding from study 1 that relatedness predicts motivation, as this shows that changes in the two variables over time are associated.

This finding provides further support for the link between relatedness and self-determined motivation.

Major conclusions:

More support is found suggesting that social relationships play an important role in motivation for dragon boating among adults. The intervention strategies tested here had limited effects on social relationships and motivation, but suggest that future work exploring whether motivation and activity can be enhanced through social interventions may prove useful.

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Future Directions and Additional Information

Results of this project will be presented at conferences and published in academic journals in the future. The first of such endeavours is a conference presentation at the North American Society for the Psychology of Sport and Physical Activity (NASPSPA) in Denver, CO in June, 2006. Further information on this and other publications will be posted on the UBC Sport and Exercise Psychology lab website (www.hkin.educ.ubc.ca/behavioural/index.html) in the future.

For more information on this study, please contact Meghan McDonough at meghanmcdonough@telus.net or (604) 822-0219.

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