Individual Forces of Physical Activity Involvement: A Two-Year Study

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Physical inactivity remains a worldwide public health issue (Sallis et al., 2016) and was identified as the fourth leading risk factor for global mortality (World Health Organization, 2010). Accumulated evidence suggests that physical activity can help build social relationships, improve mental and physical health, and create optimal work-life balance (Rupprecht & Matkin, 2012), all of which promote people’s well-being (Diener & Seligman, 2004). Given these positive outcomes, sport management researchers have examined how sport engagement, such as participation in sport events and attending community-based sport programs, can help people make and sustain healthy behaviors (Berg, Warner, & Das, 2015; Rowe, Shilbury, Ferkins, & Hinckson, 2015).

Funk and James’ (2006) Psychological Continuum Model (PCM) represents a useful framework to guide research on physically active leisure. The PCM proposes that individual and external forces influence an individual’s psychological connection to an activity. The PCM outlines how and why this connection should progressively develop over time in a deliberate manner and acknowledges that some individuals can have different trajectories that fluctuate. The PCM also draws upon involvement, which refers to the extent that an individual perceives a connection with the activity, as a key construct to operationalize the strength of the psychological connection (Beaton, Funk, Ridinger, & Jordan, 2011). Literature proposes that involvement can fluctuate over time based upon individual and environmental forces (Funk, Beaton, & Pritchard, 2011) and be deconstructed into three facets of pleasure, centrality and sign to better understand how change occurs (Beaton et al., 2011).

The PCM posits that behavioral experience is proposed as a key correlate in the developmental progression (Funk & James, 2006); however, research has failed to empirically test this proposition. In addition, the majority of research has treated behavior as an outcome of involvement and not an antecedent, even though bidirectional associations between behavioural engagement and involvement have been discussed (Beaton et al., 2011; Iwasaki & Havitz, 1998). Furthermore, although extant research treats the fluctuation patterns within a specific facet of involvement as uniform, there may be substantial within-facet variations based upon individual forces including demographics and behavioral engagement with the activity. To address these gaps in the literature, the purpose of this research was to investigate trajectories of change in the three facets of physical activity involvement—pleasure, centrality, and sign—and to identify key individual forces that correlate the observed change within the PCM framework. Specifically, the following research questions were developed:

Research Question 1: How participants’ pleasure, centrality, and sign with physical activity changes over time?
Research Question 2: What individual forces will be associated with change in pleasure, centrality, and sign with physical activity?
Research Question 3: How many trajectories of change in pleasure, centrality, and sign with physical activity will be identified over time?

We recruited participants from a 10-mile running event held in the northeastern portion of the United States. The online surveys were sent to 4,175 individuals who participated in the 2011 event with valid email addresses three times over a 2-year period: May 2011 (Time1 [T1]), May 2012 (Time2 [T2]), and May 2013 (Time3 [T3]). The final number of respondents across the three data points was 482 for a response rate of 12%. Demographic analysis revealed that participants were affluent, middle-aged, well-educated, and predominantly Caucasian. Physical activity involvement was assessed by each of the involvement facets of pleasure, centrality, and sign with running (Beaton et al., 2011). All sociodemographic variables were measured at T1. Nine variables related to participation in running events and running club membership were used to assess the influence of behavioral engagement with running on pleasure, centrality, and sign.
To assess research questions 1 and 2, we used latent growth modeling (LGM) analysis to examine overall trajectories of pleasure, centrality, and sign. LGM analysis revealed that, on average, there were significant declines in pleasure, centrality, and sign across the 2-year period (p < .001). Among demographic variables, married individuals was positively associated with change in pleasure ($\beta = .26, p = .05$), whereas age was negatively associated with change in sign ($\beta = .02, p = .02$). In the relationship between behavioral engagement and involvement, change in the number of running events per year between T1 and T2 was positively associated with changes in pleasure ($\beta = .09, p < .01$), centrality ($\beta = .19, p < .001$), and sign ($\beta = .17, p < .001$). Change in the number of running events per year between T2 and T3 were also positively associated with changes in pleasure ($\beta = .05, p = .02$), centrality ($\beta = .11, p < .001$), and sign ($\beta = .08, p < .001$). Furthermore, the number of running events per year at T1 ($\beta = .07, p < .01$) and joining a running club between T1 and T3 ($\beta = .43, p < .001$) were positively associated with change in pleasure. To assess research question 3, we used growth mixture modeling (GMM) analysis to explore whether any unique trajectories appear within each facet of involvement. The GMM analyses revealed that three distinct trajectories best described pleasure: slow-declining (86%), sharp-declining (7%), and maintaining (7%). Three distinct trajectories were also identified for centrality: slow-declining (71%), sharp-declining (15%), and maintaining (15%). As for sign, the results yielded a four-class model consisting of slow-declining (84%), sharp-declining (2%), slow-declining with the lower initial value (12%), and increasing (1%).

The results have several implications. First, although involvement refers to a sustained relationship with the activity and generally considered stable (Havitz & Mannell, 2005), our findings indicate that, on average, the level of pleasure, centrality, and sign decreased across the 2-year period. This could be because not all event participants in 2011 were engaged with running after two years. Nevertheless, change in the number of running events per year was positively associated with changes in pleasure, centrality, and sign. The results provide evidence that participation in distance-running events helps sustain and promote involvement, and endorse prior findings (Havitz & Howard, 1995; Sato, Jordan, & Funk, 2015) that opportunities to participate in recreational activities can influence the level of involvement in the activities. Our findings also represent initial evidence that unique trajectories exist within each facet of involvement across the two years. Activity may not always progress in a simple linear fashion, as recreation participation may at some point stall, diminish, or discontinue (Weinstein, Rothman, & Sutton, 1998). The PCM echoes this point stating that some individuals may intensify or lower their engagement with the activity quickly, while others may take longer time to change their engagements. The results indicate that a slow-declining pattern class represents the largest class for all of the involvement facets. Nevertheless, 14% of respondents in pleasure, 29% of respondents in centrality, and 16% of respondents in sign were classified into other classes. Sport and recreation managers who organize sport events and programs should consider how people in a slow-declining pattern class or a sharp-declining pattern class can improve and maintain long-term engagement with the activity through event participation (e.g., annual event portfolio) and subsequent activities (e.g., running club membership).