On extending the hierarchical model of leisure constraints, Jackson et al. (1993) proposed that individuals negotiate constraints, and the outcome of this negotiation is dependent on the interaction between motivation and constraints. The concept of motivation has not received significant attention in the constraints literature. Carroll and Alexandris (1997) hypothesized that motivation, as a global concept, is an antecedent of constraints. The negative bivariate correlations that they reported between intrapersonal constraints and motivation, did not, however, clarify which concept enters first in the decision-making process. Furthermore, Hubbard and Mannell (2001) reported no significant relationships between global motivation and constraints. An important issue in clarifying the relationship between motivation and constraints is the adoption of a theoretical framework for the study of motivation. The present study used the self-determination theory (Deci & Ryan, 1985) as a framework, which suggests that behavior can be intrinsically motivated, extrinsically motivated, or amotivated. Incorporating elements of the self-determination theory, Vallerand and Losier (1999) proposed that social factors influence psychological mediators, which in their turn influence motivation: "social factors -> psychological mediators -> types of motivation -> behavioral consequences" (p. 145). This motivational sequence can provide a very useful framework for the study of constraints. The definition of intrapersonal constraints, as given by Crawford and Godbey (1987) suggests that intrapersonal constraints fit with the definition of the psychological mediators. Furthermore, social / environmental related factors have been widely investigated in the leisure constraints literature (e.g., Jackson & Henderson, 1995; McGuire, Dottavio, O'Leary, 1986; Stodolska, 1998). However, these studies did not empirically link these social-environmental related constraints with motivation. Based on Vallerand and Losier's (1999) model, it could be suggested that some types of constraints might affect motivation, which in its turn influences the levels of participation. Subsequently, some types of constraints might affect the levels of participation mainly indirectly through the positive or negative influence on motivation.

Aim of the Study

The aim of this study was to investigate the degree which intrapersonal, interpersonal and structural constraints influence the motivational dimensions. The multi-dimensional measure of sport motivation (SMS, Pelletier et al., 1995) was used as a theoretical framework to measure motivation, while the hierarchical model of leisure constraints (Crawford et al., 1991) was used as the theoretical framework to study constraints.

Methods

Two hundred and fifty seven sport participants (N=257), randomly selected from the residents of the city of Thessaloniki, Greece, competed the questionnaires. An analysis of the participation levels indicated that 43% of the participants reported participation on a daily basis, 36 % on a weekly basis, 9% on a monthly basis, and 12% reported that participate less than once a month. The twenty nine-item leisure constraint scale developed by Carroll and Alexandris (1997) was used to measure constraints, and the Sport Motivation Scale (Pelletier et al., 1995) was used for the measurement of motivation. This is composed of three sub-scales assessing the three motivational constructs: intrinsic motivation (12 items), extrinsic motivation (12 items), and amotivation. A 7-point Likert type scale was used.

Results

Constraint Dimensions: A principal component analysis revealed seven factors, accounted for 68% of the variance; they were defined as follows: Individual / psychological (six items); Time (five items); Lack of knowledge (four items); Facilities (four items); Accessibility / financial (four items); Lack of partners (three items); Interest / negative past experiences (three items). The values of alpha for the sub-scales were satisfactory, as they ranged from .65 to .86.

Motivation Dimensions: The reliability analysis indicated that all the motivation dimensions had good values of alpha (intrinsic scale: alpha = .92; extrinsic scale: alpha = .84; and amotivation: alpha = .82). The intrinsic motivation scale had the highest mean score (4.17), followed by the extrinsic scale (3.59), and the amotivation scale (2.38).

Constraint Dimensions and Amotivation: A simultaneous regression analysis indicated that constraints, in total, accounted for 38% of the variance in amotivation (F=29.4, rx. 001). The individual / psychological (t=7.3, p<. 001), lack of knowledge (t=5.0, p<. 001), lack of interest (t=3.7, p<. 001), and time (t=2.2, p<. 05) dimensions contributed significantly to the prediction of amotivation.
Constraint Dimensions and Intrinsic Motivation: A simultaneous regression analysis indicated that constraints, in total, accounted for 15% of the variance in intrinsic motivation ($F=6.2$, $p<.001$). The individual / psychological ($t=2.7$,$p<.005$) and lack of interest ($t=2.6$, $p<.005$) dimensions contributed significantly to the prediction of intrinsic motivation.

Constraint Dimensions and Extrinsic Motivation: The regression analysis, with extrinsic motivation as the dependent variable, indicated that the seven constraint dimensions failed to significantly predict the dependent variable.

Discussion

On extending the hierarchical model of leisure constraints, Jackson et al. (1993) proposed that individuals negotiate constraints, and the outcome of this negotiation is dependent on the interaction between motivation and constraints. However, the model did not clarify if motivation is an antecedent or consequence of perceived constraints. Hubbard and Alexandris (1997) hypothesized that motivation, as a global concept, is antecedent of constraints. Hubbard and Mannell (2001) reported no significant relationships between global motivation and constraints. The present study adopted a different approach and ended to different results. Using as a framework the self-determination theory (Deci & Ryan, 1985) and the hierarchical model of intrinsic and extrinsic motivation, as proposed by Vallerand and Losier (1999), we hypothesized that some constraint dimensions might operate as psychological mediators and act as antecedents of motivation. The results provided support for this hypothesis. The three intrapersonal dimensions (individual / psychological, lack of knowledge and lack of interest), and marginally the time dimension contributed significantly to the prediction of amotivation, and accounted for 38% of its variance. If we accept that amotivated individuals will soon drop out from participation (Fortier et al., 1995), these results suggest that intrapersonal constraints might also affect negatively commitment to participation. This suggestion is in line with the results of a recent study, conducted by Alexandris et al. (in press). These authors investigated the relationship between constraints and commitment to participation, and reported that intrapersonal constraints are the most powerful predictors of commitment. The present study suggests that intrapersonal constraints probably affect commitment through their negative effect on motivation. On the other hand, no significant relationships were found between interpersonal and structural constraints and amotivation. This can be explained by the hierarchical model of leisure constraints (Crawford et al., 1991). According to the model, intrapersonal constraints enter first in the decision-making process, and they are the most powerful ones. Several studies have supported the power of intrapersonal constraints (e.g., Alexandris & Carroll, 1997; Raymore et al., 1993). Future studies should emphasize more on the investigation of intrapersonal constraints. Constructs, such as perceived competence, perceived autonomy, task involvement, and perceived playfulness (Deci & Ryan, 1985; Iwasaki & Mannell, 1999), which act as psychological mediators of motivation, could be used to better conceptualize intrapersonal constraints. This will also help to develop more detailed measurement tools for the whole range of intrapersonal constraints, since there are still validity and reliability related problems of constraint measurement (Hubbard & Mannell, 2001). The results furthermore indicated that intrapersonal constraints predicted significantly, but not strongly, intrinsic motivation. More research is required in order to further clarify this relationship. Measurement related issues might have affected these results. The Sport Motivation Scale (Pelletier et al., 1995) used in the present study was originally developed for competitive sports. It worked satisfactorily in the context of the present study. However, measuring intrinsic motivation in a more detailed level (Weissinger & Bandalos, 1995) could help towards further exploring its relationship with intrapersonal constraints. Finally, this study also indicated that there is no relationship between any type of constraint and extrinsic motivation. Vallerand and Loisier (1999) included all the motivational dimensions in their hierarchical model, proposing that psychological mediators might influence them all. Our results did not support this proposition, and they are in line with leisure researchers and theorists who have suggested that the psychological mediators mainly influence intrinsically motivated behavior (Iso-Ahola, 1989; 1999; Iwasaki & Mannell, 1999; Weissinger & Bandalos, 1995). Future research is required to further clarify the role of motivation in the model. First of all, studying the psychological mediators that have been proposed in the literature (e.g., perceived competence, performance pressure, perceived autonomy) will help us to better conceptualize intrapersonal constraints, and develop more reliable and valid measurement tools (Hubbard & Mannell, 2001). As previously discussed, Vallerand & Loisier (1999) suggested that social factors influence the psychological mediators, which in their turn influence motivation. Further research is required in order to investigate how intrapersonal constraints arise, and which social / environment factors influence them. Finally, the construct of "negotiation" was not included in the design of the present study. Hubbard and Mannell (2001) provided evidence for the important role of negotiation in the hierarchical model. Investigating the interaction between motivational dimensions, negotiation and constraint dimensions could further clarify the hierarchical model of leisure constraints.
References


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ABSTRACTS

of Papers Presented at the Tenth Canadian Congress on Leisure Research

May 22-25, 2002

Faculty of Physical Education and Recreation
University of Alberta
Edmonton, Alberta

Abstracts compiled and edited by
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