The Role of Psychological Factors in Recreational Sport Participation

Part 1: Literature Review

A research report produced for sports coach UK by

Sophia Jowett and Luke Felton
Loughborough University
November 2013
1 Literature Review

It has been well documented (e.g., Bioché & Sarrazin, 2007; Khan et al., 2012; Koivula, 1999) that participation in regular physical activity such as recreational sport has positive effects on both physical (e.g., appearance, slimness, conditioned body) and psychological health and well-being (e.g., self-esteem, anxiety, depression, vitality, energy). Physical activity includes all forms of activity and can range from “everyday walking or cycling to get from A to B, active play or playing active games as well as organised and competitive sport” (Department of Health, 2011, p. 9).

The Department of Health stated that lack of physical inactivity is the fourth leading risk factor for global mortality, following high blood pressure, tobacco use and high blood glucose. The recommendation of 30 minutes at least five days a week (for adults) helps prevent numerous physical and health problems. Physical activity is therefore not only encouraged but is recommended as part of a healthy lifestyle (Khan et al., 2012).

In 2013, Sport England commissioned and conducted a large scale research that has generated a mass of information about who plays sport, the benefits of sport and encouraging take up (http://www.sportengland.org/research/). It is noteworthy that nearly 55% of the sample aged 16-25 participated in sport once a week for 30 minutes or more. Moreover, 31% of adults aged 26 years+ participated once a week for 30 minutes or more. More males (40%) than females (30%) aged 16+ participated in moderate intensity level sport at least once a week.

These are encouraging results but may also highlight that there’s a long way to go. Recent research has revealed that young people who participate in sport every day are twice as likely to have high levels of happiness as those who participate in sport on two or fewer days in a week (McFall, 2012). Overall, more involvement in sport can evidently have positive benefits for both young and old.

Despite the established benefits of physical activity (regardless of age and gender) underlined by scientific research and government recommendations, the role of the psychological factors in physical activity specifically related to recreational sport participation remains limited. An understanding of these factors could provide important information on what causes people to initiate and maintain participation in recreational sports. Understanding these reasons could help practitioners engage more people in recreational sports for longer and help participants enjoy more the benefits of their participation.

Whilst there is a lack of research on the psychological factors associated with recreational sport participation, there is a plethora of research exploring the psychological factors associated with elite sport participation. The findings of this research have highlighted that such factors as confidence, concentration, coping, motivation, commitment and support are key for participation at the highest level of sport (e.g., Gould, Dieffenbach, & Moffett, 2002a).

These psychological factors, whilst important for participation in elite sport, may not accurately reflect the psychological factors associated with participation in recreational sport. For the purpose of this study, we define recreational participation as engagement in regular physical activity that involves any organised sport with the focus on fun, learning, and other factors, including competition. What differentiates elite from recreational sport is that while competition and everything that relates to it (e.g., sponsorships, scholarships, medals, trophies, travelling) is a requirement of elite sport, it is not for recreational sport participation. Thus, this research aims to examine the specific psychological factors associated with recreational sport participation.
The literature review is presented in two parts. The first provides a brief overview of the literature concerning the psychological factors prevalent in elite sport. The second provides an overview of literature concerning the psychological factors associated with recreational sport. These are followed by a summary with concluding remarks.

**Psychological Factors in Elite Sport**

A series of studies conducted with Olympic athletes and coaches (Greenleaf, Gould, & Dieffenbach, 2001; Gould et al, 2002a; Gould, Greenleaf, Guinan & Chung, 2002b) revealed a range of psychological factors associated with elite sport and successful performance. For example, Greenleaf and colleagues (2001) interviewed sport performers who participated in Olympic Games; their findings revealed top level performance was linked to psycho-social factors. Psychological factors included athlete self-confidence, focus on fun, and positive attitude, whereas social factors included social support, coach inter-personal trust and team unity. Whilst these were viewed as positive factors, negative factors to performance were also uncovered including coach conflict, negative team atmosphere, poor interaction with teammates, lack of support, and money concerns.

In the follow-up study Gould et al (2002a) interviewed 10 Olympic level athletes, as well as their coaches and significant others (eg parent, guardian). Psychological inventories were also administered in order to understand further the psychological characteristics and development of elite athletes. The findings revealed that Olympic level athletes were characterised by such psychological factors as: coping with stress and controlling anxiety, setting goals and achieving goals. Moreover these athletes demonstrated high self-confidence and mental toughness, as well as high levels of hope, optimism, and adaptive perfectionism.

Gould also highlighted that psychological factors such as those listed earlier were developed in an environment within which family members, coaches and sport-related personnel as well as other individuals played an important part. The social environment is capable of promoting the development of these factors in both a direct or deliberate way through teaching/coaching and indirect or unintentional way through modelling. These findings are important because they underline the interaction between intra-personal (eg self-confidence, motivation) and inter-personal or environmental/social (eg leadership, relationship) factors for participation at the highest level of sport.

Another study by Gould et al (2002b) conducted research on coaches’ perceptions of successful participation in elite sport. Surveys completed by coaches revealed that team cohesion, athlete self-confidence and social support were amongst the most important factors. Both self-confidence and social support have been found in numerous studies to be key psychological factors to top-level performance by both coaches and athletes.

The factors affecting self-confidence have also been explored; specifically the role of self-esteem and perfectionism (eg Koivula, Hassmén & Fallby, 2002). Within this study self-esteem was viewed within two dimensions, basic and earned self-esteem. Basic self-esteem referred to a fundamental love, respect, and self-acceptance of oneself and is fairly static in nature. By contrast, earned self-esteem concerned the need to be appreciated by others, to feel competent and in control, and is more temporary and sensitive to situational factors (Koivula et al, 2002).

Similarly, perfectionism was divided into positive and negative dimensions. The negative dimension of perfectionism included concern over mistakes, doubts about actions, and fear of failure. The positive dimension included high personal standards, positive achievement strivings, followed by feelings of satisfaction and enhanced self-esteem (see Frost, Marten, Lahart & Rosenblate, 1990). The findings showed that negative perfectionism (eg concern over mistakes, fear of failure) was associated with increased
competitive anxiety and reduced self-confidence in elite athletes. In terms of self-esteem, high levels of basic self-esteem resulted in more positive perfectionism and ultimately increased self-confidence but also lowered anxiety. By contrast, athletes whose self-esteem (earned) was entirely based upon feelings of competence and control experienced negative perfectionism, resulting in low self-confidence and high anxiety. Therefore, self-esteem alongside perfectionism appeared to be important factors in the elite athletes’ confidence.

Further to the research conducted by Koivula et al, Woodman and Hardy (2003) conducted a meta-analysis examining the impact of cognitive anxiety and self-confidence on sport performance. Findings revealed that cognitive anxiety and self-confidence are distinct constructs and should not be viewed as opposite ends of the same continuum. In other words, an athlete displaying high self-confidence can also display high cognitive anxiety. The analysis also indicated that the effect of self-confidence on performance was greater than that of cognitive anxiety. Therefore, athletes who experience high levels of both factors will still perform to a high level as their high self-confidence can counteract or buffer the negative effect of cognitive anxiety. Woodman and Hardy also reported that the standard of competition significantly moderated the self-confidence to performance effect. Thus, the effect was stronger in high standard competition.

Finally, Mallett and Hanrahan (2004) examined the psychological characteristics of elite athletes in terms of their motivational processes. Interviews with elite athletes revealed that they were defined by self-determined forms of motivation. In other words, elite athletes viewed their sport as central to their lives and took part for the sense of achievement it gave them through goal accomplishment. This resulted in athletes having high perceptions of competence in their sport which further increased their level of self-determined motivation. Elite athletes were also reported to have self-belief in their abilities, a factor that can be linked to self-confidence. Elite athletes are therefore defined through their self-determined motivation to participate in their sport. Motivation is generally a very well researched area within competitive/elite sport within sport psychology; the work conducted by Joan Duda and colleagues on goal orientation and motivational climates is seminal but beyond the scope of this review.

While these studies give a flavour of the work conducted within elite sport, they are not exhaustive. Nonetheless, they reinforce the importance of such psychological factors as confidence, anxiety, coping, motivation, team cohesion, social support and quality coach leadership, coach-athlete relationships in elite sport participation and successful performance.

**Psychological and Other Related Factors in Recreational Sport**

This section provides an overview of the available literature on recreational sport participation. The studies reviewed cover nearly three decades from 1981 to 2010 and will be discussed in chronological order in an attempt to highlight the progress and identify key factors associated with participation in recreational sport.

Kleiber and Hemmer (1981) examined the role of locus of control in recreational sport participation between males and females. According to the notion of locus of control, there are two dimensions: external and internal locus of control. Individuals with an external locus of control believe that their lives are controlled by outside forces, such as chance and other people. Individuals with an internal locus of control believe that they are in control of their lives and are more resistant to outside forces.

The individuals within this study were categorised into three recreational participation levels: **none** ($n = 44$), **for fun only** ($n = 40$), and **organised team** ($n = 36$). When comparing males to females, more males were categorised in the organised team category (23 cf 13) whilst more females were involved in sport for fun only category (25 cf 15). The study showed that females involved in organised teams were more internal in
their locus of control than females who participated for fun. Females participating in organised teams also had a more internal locus of control than males participating in organised teams, but the significance was marginal. Finally, the males in the fun only category had the most internal locus of control of all the categories across genders. While Kleiber and Hemmer suggested that sport is generally a male dominated arena, it may require a strong internal locus of control for females to commit to organised sport teams. It is also possible that females with internal locus of control are more likely to be attracted by competitive recreational sport because they may be more confident and/or have higher levels of self-esteem.

Motivation has also been the focus of research for recreational sport participation (Fortier, Vallerand, Brière & Provencher, 1995). This study explored different facets of motivation including intrinsic, extrinsic, and amotivation within elite and recreational sports. Extrinsic motivation is represented in individuals who participate in sport for the external rewards or to avoid negative consequences, not for the fun of participating or an internal love for the sport. The concept of amotivation refers to individuals who are neither intrinsically or extrinsically motivated towards participation. Individuals in this state of motivation perceive no control over their actions and question their very involvement in the activity.

Within this research, intrinsic motivation was divided into three types: to know, to accomplish things, and to experience stimulation. Intrinsic motivation to know relates to the pleasure and satisfaction experienced when learning, exploring, or trying to understand a new skill. Intrinsic motivation to accomplish things can be defined as engaging in an activity for the pleasure and satisfaction experienced when trying to accomplish a task. Finally, intrinsic motivation to experience stimulation occurs when someone engages in an activity to experience the stimulating sensations derived from the activity, such as fun and excitement. Results showed that the recreational sport participants demonstrated intrinsic motivation to experience stimulation and to accomplish things. In addition, females were more intrinsically motivated to accomplish things than their male counterparts whilst also demonstrating less external motivation and amotivation.

Research conducted by Stein, Kimiecik, Daniels and Jackson (1995) aimed to examine the psychological antecedents of flow in recreational sport, specifically, the psychological factors of goals, competence, and confidence. The concept of flow is a psychological state that typically occurs in individuals who perceive a balance between the challenges associated with a situation and their ability to meet those challenges (Csikszentmihalyi, 1990). An individual can also experience non-flow which can be categorised into three contexts; anxiety, boredom and apathy. The anxiety non-flow state is experienced when the challenge of an activity is greater than the individual’s average and their ability to cope is less than average. Boredom is experienced when the challenge is less than the individual’s average and their abilities are greater. Apathy occurs when both the challenge and the individual’s ability to cope are below average.

These flow states were examined within two recreational environments: a competitive and a learning environment. The competitive environment in this study was either a tennis tournament or a competitive round of golf, whereas the learning environment was a basketball activity session. Perceptions of flow state and quality of the experience were assessed in each environment. In Study 1, an individual’s quality of experience following the tennis tournament was measured with two items assessing enjoyment, “How enjoyable was the match?” and satisfaction “How satisfied are you with your performance in today’s match?” Responses were measured on a nine-point response scale. In Study 2, the basketball learning environment was examined and three additional factors of concentration, control, and success were included within the assessment. Finally, in Study 3, the quality of experience in the golf tournament was assessed via experiences of enjoyment, satisfaction, concentration and control.
The findings showed that the flow and non-flow state of boredom resulted in a better perceived quality of experience within the competitive environment. The authors suggested these results were due to the nature of the competitive environment. Within this environment outperforming, excelling, and winning are given more importance than within a learning environment which focuses on developing skills. Having higher levels of skill than the task requires (ie boredom non-flow) is considered helpful in competition and so the quality of the experience does not suffer. By contrast, only the flow state in which the challenge and skills required were balanced with the individual’s average resulted in better quality experience within the learning environment.

Therefore, when learning new activities individuals gain a better quality of experience when the challenge is greater than they normally face and the skills required are above what they have. This leads to individuals gaining a sense of accomplishment when they learn the skills needed to overcome the challenge. Whilst the boredom state may result in achieving good performance in a learning environment, individuals will not feel that they are learning anything new and therefore overall satisfaction will be low. The findings also showed that the psychological factors of competence, goals, and confidence were not identified as antecedents of flow experience in recreational sport. Stein suggested this may have been a result of the psychological antecedents measured being linked more to performance - flow is a more subjective state and not an objective occurrence.

In a study to examine the relationship between goal orientations, beliefs about the causes of success, and trait anxiety among high school, intercollegiate, and recreational sport participants, White and Zellner (1996) observed that the recreational male participants equated effort (working hard at the task) as the way to succeed in and enjoy their sport. Recreational sport participants reported using a task based goal orientation in which motivation to improve and train hard were important, as opposed to an ego orientation in which winning and proving oneself to be superior was more important. By contrast, high school and intercollegiate competitive or elite sport participants within this study were found to have higher levels of ego orientation and thus outperforming others and winning was a primary motivation.

An earlier study by Duda (1988) revealed similar findings. Recreational sport participants who placed a high emphasis on task (eg hard work with an emphasis on improving one’s own skill level) were more likely to have participated in their sport longer and practised their sport more in their free time. Duda also found that goal orientations were significantly varied as a function of participant gender and previous competitive sport involvement. Females were less oriented than males to ego goals, where outperforming others and winning are focal elements of participation. This was especially true among both males and females who had previously engaged in competitive sports. In line with achievement goal orientation (Nicholls, 1989), it was concluded that a task orientation would foster intrinsic motivation and in turn would lead to long-term participation in recreational sport.

Alexandris and Carroll (1997) examined the constraints associated with recreational sport participation levels in Greece. Such constraints have been defined as “the factors that inhibit or prohibit participation and enjoyment in leisure” (Jackson, 1993). This study identified time and availability of facilities as the most important constraints. In addition, individuals who did not participate in recreational sport were significantly more constrained than those who did, especially in terms of perceived health and fitness, competence, and knowledge levels. The authors suggested that help from significant others, such as family and friends, and appropriate introductory programmes may overcome perceived barriers to participation. Findings indicated that perceptions of perceived constraints reduced with increased participation. It was thus concluded that if initial constraints can be overcome and individuals can begin participating in recreational sports, they would view fewer constraints, encouraging continued participation.
Koivula (1999) investigated motives for sport participation between males and females. Findings from this study showed that regardless of gender, physical health, fun, and enjoyment were rated as the most significant motives for participating in sport. In terms of gender differences, males were found to rate competition as a more important motive for recreational participation than females, whilst females rated appearance as a more important motive than males. The findings from this study suggest that while males and females have different reasons for participation in recreational sport, physical health, fun, and enjoyment are universally important.

In a study by Hubbard and Mannell (2001), constraints in recreational activities were examined in terms of the negotiation processes individuals engage in. It was speculated that negotiation strategies are used by individuals to overcome perceived constraints to recreational participation, among them time management (eg cutting short sessions, getting up earlier to ensure time to participate) and financial negotiations (eg budgeting, improvising with equipment). According to the constraint-effects-mitigation model, constraints have a negative effect on participation, whilst negotiation has a positive effect. The findings of this study showed constraints positively influenced the use of negotiation. Increased motivation in terms of health and enjoyment was found to increase negotiation efforts, but was not directly linked to participation. Overall the findings showed that whilst constraints reduce participation, they also trigger negotiation strategies which counteract the negative effect of constraints and can increase participation in recreational activities. Also, motivation to participate for health and enjoyment increased the effort put into negotiating against constraints and was shown to help individuals start participating in recreational activities and to maintain their level of participation.

Research has also been carried out to examine whether participation in recreational physical activity differs across socio-economic groups (Burton, Turrell, & Oldenburg, 2003). The groups examined in this study were chosen based upon socioeconomic position (SEP). They were organised into a high, middle and low SEP groups. The participants in the high SEP group came from a private consultancy firm, the middle SEP group from the local city council, and the low SEP group from the offices of the Salvation Army. The results of this study showed the variety of influence socio-economic groups have on recreational sport participation.

Common influences across all groups included previous opportunities, physical health, social assistance, safety and physical and health benefits, and the barriers of self-consciousness, low skill and weather/time of year. Influences unique to the high SEP group included social benefits, achieving a balanced lifestyle, and the barrier of an unpredictable lifestyle. In the middle SEP group, relevant influences included efficacy, perceived need, activity demands, affiliations, emotional benefits, and the barrier of possible competing demands between recreational participation and other life demands. Finally, influences most commonly associated with the low SEP group included poor health and the barriers of inconvenient access and low personal functioning. The findings suggest that individuals from different socio-economic backgrounds may perceive different reasons and barriers to participating in recreational sport activities.

In another study concerning the role of motivation, Kerr, Au and Lindner (2004) examined the association between motivation and level of risk in male and female recreational sport participants. The aims of the study were to examine whether motivation differed for low- (eg aerobics, badminton, tennis), mid- (eg athletics, fencing, volleyball), and high-risk (eg handball, judo, rugby) sports, judged in terms of injury risk between males and females. The findings showed that males in high-risk sports reported their motivation to be based around fun and enjoyment whilst motivation to partake in low-risk sports was based around health and fitness benefits.

By contrast no significant differences in motivations to participate were found across risk groups for females. However, females taking part in high-risk sports did state that
feeling in control and mastering risky situations was more important to them than it was to those involved with medium and low-risk sports. Moreover, findings showed that females rated developing friendships as being a significant reason for engaging in sport when compared to males. Based on their findings, Kerr et al proposed that to encourage participation in recreational sports, a wide range of activities with a range of risk levels should be made available. In order to appeal particularly to females, sports or programmes should be made available where females can develop relationships, including group/team activities with medium to high risk levels.

Further research into the role of self-determined motivation in sport participation was conducted by Boiché and Sarrazin (2007). They examined individuals’ motivation towards three life domains (sport, school and friendship) and the potential conflict between these. Overall the findings showed that self-determined motivation towards sport resulted in increased participation, and that conflict between the school and sport domains subsequently reduced motivation to participate in sport. The conflict between the sport and friendship domains did not reduce sport participation. These findings show further support for the important role that motivation has in sport participation whilst demonstrating that conflict between school and sport could result in reduced participation.

The social attitudes of Turkish students to recreational participation were explored through research by Goral (2010). This research aimed to determine the factors that are effective in encouraging students to try a sport and increase participation numbers. Important factors that were found to influence participation in sport included family support and the media. Individuals were more likely to participate in a sport if they received support from their families and if the sport received coverage in both the print and visual media. This aspect of media influence on participation has not been identified in any of the previous studies mentioned in this review. Findings also showed that families provided more support to males than females and that wealthier families provided more support than the less well-off families. This has conceptual links to the socioeconomic findings reported by Burton et al (2003).

Beaton, Funk, Ridinger and Jordan (2011) conducted research in which sport involvement using the Psychological Continuum Model (PCM) framework was employed. The PCM was originally developed by Funk and James (2001) in the context of sport participation by examining the various stages associated with supporting a sports team. The PCM consists of four stages of psychological connection to a sport: awareness, attraction, attachment and allegiance.

The awareness stage is characterised by simple knowledge of participation opportunities, whilst allegiance is characterised by positively biased cognitions towards the sport, durability and attitudinal and behavioural loyalty. The progression through the various stages of the PCM is not dependent on time spent in each stage; an individual can progress or regress through the model according to circumstances. When applying the PCM to recreational marathon runners, the findings showed that runners whose behaviour suggested stronger psychological connections to the sport engaged more in terms of frequency, depth and breadth of sport-related behaviours. It was thus recommended that to encourage long-term participation in recreational sport organisations, coaches should aim to develop individuals’ connection to the sport from the initial awareness and attraction stages to the higher attachment and allegiance stages.

Finally, Lera-López and Rapún-Gárate (2011) found that participation in recreational sport was constrained by economic, sociological and psychological variables such as gender, age, time available to participate and motivational factors. Specifically, it was reported that women showed higher sports participation frequency than men and that as age increased so did participation frequency. Furthermore, motivational factors such as fun, slimness, fitness and competition have shown to increase participation. The authors
provided practical suggestions for increasing participation including marketing sports in terms of the fun and health and fitness aspects as these were shown to be the most important motivators for sport participation frequency.

**Summary and Concluding Remarks**

The review has highlighted a range of important factors associated with recreational sport participation ranging from intra-personal (e.g., confidence, motivation), inter-personal (e.g., coach support and others), and environmental (e.g., facilities, media, types of recreational sport programmes). It is evident that a range of constraints to recreational sport participation exist including time and money as well as availability of facilities or indeed appropriate recreational sport opportunities.

While the elite sport participation research highlights that confidence, motivation, self-esteem, perfectionism, and social support are important factors, it would appear that similar factors are linked to recreational sport participation. However, these factors appear to differ in the role and significance they play depending on the context (elite versus recreational) they are experienced. For example, findings suggest that the level of recreational sport played may moderate the importance of self-confidence and that the type of recreational sport activities may be linked to different motives people have for participation. For example, individuals participating in competitive recreational sport leagues may report self-confidence as being more important to participation than individuals participating in recreational sport for fun or fitness. Equally, recreational sport participants engaged in high risk sports may be more motivated by fun and excitement while participants in low risk sports may be more motivated by health and fitness.

It would appear that an understanding of what motivates people to participate in recreational sport could be an important psychological factor to consider, especially when considering ways of increasing and maintaining participation in recreational sports. Motivation not only promotes participation in recreational sport because of the internal benefits experienced but it can help overcome perceived participation constraints.

Other related factors include locus of control, flow states, and goal orientations. In terms of flow states, the findings suggest that creating environments in which individuals can experience optimal flow states could improve prolonged participation in recreational sports. Specifically, a balance between the level of challenge and the skill needed to achieve is required so that individuals do not enter the anxiety or apathy states which may result in withdrawal from the activity. Motivational orientations, perceived constraints, and socio-economic information may be key elements to consider. Finally, the application of a psychological framework such as the PCM could promote a better understanding of the stages of recreational participation that people are in and the psychological factors associated within each stage.

Whilst research into the psychological factors involved in recreational sport participation is comparatively limited, this review has identified a number of factors that appear to have an important influence in recreational sport. This research, however, has only examined a very limited range of psychological factors. This is in stark contrast to the elite sport participation literature in which numerous studies have been systematically conducted to examine the breadth and depth of psychological factors within the elite sport context. A comprehensive examination into the psychological factors in recreational sport participation that incorporates intra-personal, inter-personal, and environmental dimensions would provide extensive empirical and practical information. From a practical viewpoint, better understanding of the psychological factors involved in recreational sport would help increase and maintain high levels of participation leading to a healthier and happier nation.