

The Effect of a Client-Centered Approach on Flow States and the Performance of Three Elite Golfers

John Pates and Andrew P. Cowen

University of Derby (Buxton)

Costas I. Karageorghis

Brunel University

This study examined the effect of a client-centered approach to consultancy on the performance and flow experiences of three elite golfers during golf competitions organized by the European Golf Tour. Interviews were used to explore the experiential knowledge and psychological strategies of each golfer. After gathering this information the first author applied his academic and consultancy expertise to help clients fit their psychological strategies into a preshot routine for putting, driving, iron play, chipping, and sand shots. Their performance and flow state experiences were analyzed using a single-subject, multiple baselines, across subjects design combined with a procedure to monitor clients' internal experience (Wollman, 1986). The results indicated that all three clients improved their mean stroke average and increased their mean flow scores from baseline to intervention. There were a few overlapping data points between baseline and intervention conditions for the performance scores. The qualitative data provides an insight into how elite golfers use their psychological skills to control psychological states such as flow and enhance performance.

Keywords: elite golfers, performance, flow, client-centered

Applied sport psychologists have generally approached consultancy on the basis that "they know best", due to their own expertise and experience in the field (Dale, 1996). After spending 8 years as a consultant on the European Golf Tour the first author realized this conjecture is false and the experiential knowledge of elite golfers not only makes them a veritable expert in sport psychology but also a valuable resource in the development of new intervention strategies. The view that athletes are the real experts and possess important psychological knowledge resonates in

Pates and Cowen are with the School of Culture and Lifestyle, University of Derby (Buxton), UK. Karageorghis is with the School of Sport and Education, Brunel University, UK.

the work of authors/practitioners such as Newburg (1992), Dale (1996), Ravizza (2002), Nesti (2004) and Lindsay, Breckon, Thomas and Maynard (2007). These individuals have expressed the need to adopt different theoretical frameworks to applied sport psychology with an emphasis on a more phenomenological approach to both research and consultancy.

The phenomenological approach puts the client at the center of the knowledge tree wherein their experiences are considered of primary importance to the researcher or practitioner. Dale (1996) called this approach *client-centered* because it involves viewing the athlete as a specialist in the consultant-client relationship. Elite golfers often reveal that they have relevant knowledge and exceptional performance-enhancing psychological skills. For example, in his book *Golf My Way*, Jack Nicklaus describes creating three visual images before he hit a shot. He referred to this cognition as “going to the movies” (Nicklaus & Bowden, 1974). The first was a movie of the ball lying at its resting place, followed by a second movie of how the ball gets to its target. The third and final movie involved focusing on the “set up” and the swing needed to execute the shot successfully. Interestingly, Jack Nicklaus did not learn these imagery techniques from a consultant but developed them from his own playing experiences.

Without the aid of a consultant, other elite golfers have also developed their own stratagems to improve performance. For example, the preshot routine of Fred Couples involved him imaging the best shot he ever played with the club he was using (Rotella, 1995). By way of contrast, Major winner Lee Trevino used self-talk before he hit a shot (Trevino & Blair, 1983) and the late Sam Snead and Bobby Jones used music in the form of auditory imagery to control emotions and the rhythm of their swings (Snead, 1997). Taken collectively, the evidence indicates that some elite golfers use a number of psychological strategies when they play golf, some of which may have not been explored by researchers and consultants.

According to Ravizza (2002) a sport psychologist should explore the experiential wisdom of the athlete they are working with, and then use their academic knowledge to develop an appropriate psychological intervention. Empirical support for this client-centered approach has come from a recent study by Lindsay et al. (2007) who found the performance of an elite figure skater improved when they developed a psychological intervention strategy based on the athletes experiential wisdom.

Although the Lindsay et al. (2007) study implies consultants should use a client-centered approach when they work with elite athletes, empirical evidence for its effect on performance was not documented. Therefore, the main purpose of this study was to examine the effect of a client-centered approach on the performance of elite golfers in real competitions.

In addition to gathering performance data the authors were also interested in collecting information on a mental state described by Csikszentmihalyi (1990) as flow. Flow denotes the holistic sensation of absorption that people feel when they act with total involvement. It is also characterized by an autotelic experience (Csikszentmihalyi, 1990). A significant number of elite athletes report that flow is the crucial factor that separates winners from losers (Karageorghis, 1999; Jackson & Csikszentmihalyi, 1999; Unestahl, 1983). These findings imply that athletes have the potential to enhance their performances if they can regulate the intensity of their flow experience. A number of researchers have provided empirical

evidence to support this proposition (e.g., Pates & Maynard, 2000; Pates, Oliver, & Maynard, 2001; Pates, Cummings, & Maynard, 2002; Pates and Palmi, 2002; Pates, Karageorghis, Fryer, & Maynard, 2003; Nicholls, Polman, & Holt, 2005). In spite of this evidence, flow research in ecologically valid golf settings is absent from our literature. Thus, the second purpose of this study was to examine the effect of a client-centered approach on the flow experiences of elite golfers during competitions.

Specifically, this study examined the experiential knowledge of three elite golfers using a semistructured interview. The interview enabled the first researcher to identify the psychological skills of each golfer. The researcher then applied his expert knowledge and consultancy skills to help the golfers fit their psychological strategies into a preshot routine. The effect of this client-centered approach on the flow state experiences and performance of each golfer was examined during eleven European Tour golf events. A single-subject, multiple baselines, across-subjects design coupled with a procedure that monitored both flow states and the internal experience of each golfer were implemented to evaluate the effectiveness of the intervention (Wollman, 1986).

Method

Participants

The participants were 3 male European Tour golfers aged 28–39 years. The participants had at least 6 years of European Tour playing experience. One of the participants had won four European Tour events and had Ryder Cup experience. The other two had won no events but had Walker Cup experience. None of the participants had previous experience working with a sports psychologist. All of the participants gave their informed consent to take part in the study.

Experimental Design

A single-subject AB design was implemented to examine the effects of an individualized preshot routine on flow states and golf performance. This type of design allows participants to serve as their own source of control for the experiment (Barlow & Hersen, 1984; Hrycaiko & Martin, 1996). This format was also most appropriate because it facilitates the analysis of the effects of an intervention that could not be withdrawn from the participant due to the ethical reason of withholding a potentially positive intervention from an elite participant (see Robson, 1994). The design required the observation of baseline performance and an intervention phase for each of the participants with the length of baseline increased for each succeeding player used in the analysis. The interventions were introduced when a stable baseline or a trend in the opposite direction of the change anticipated became apparent for each of the participants. A sequential application of the treatment was applied until all participants received the intervention. Using the multiple baseline to sequentially apply the independent variable across multiple subjects provides more information about the effectiveness of the independent variable and its generality. Based on the recommendations of Barlow and Hersen (1973, 1984) and Kazdin (1992), data were collected on 11 occasions over 16 weeks of tournament golf.

Dependent Variables

Performance Analysis. Stroke average was selected as the performance indicator because it represents a global measure of a participant's overall performance. Stroke average is the average score taken from all four rounds of stroke-play golf or two rounds if the player misses the cut. A round of stroke-play scores consists of 18 holes wherein the participant records the number of strokes taken to complete each hole. At the end of the round, the scores from each hole are summed to give a total stroke-play score.

The reliability of the stroke play scores was assessed by comparing the judgments of the participant against an independent observer, who was the participant's playing partner. The reliability assessment took place after each round and resulted in a correlation of 1.00 for the scores of the participant and the independent observer. It is worth noting that a failure to score stroke play correctly would result in a disqualification of the participant from the tournament. Scores were obtained from the official championship scorekeeper.

Flow Analysis. In addition to the performance data, information on the intensity of flow experienced by the participants during tournaments was assessed using the Flow State Scale (FSS-2; Jackson & Eklund, 2002, p.350). This 36-item instrument provides a quantitative measure of the nine dimensions of flow outlined by Csikszentmihalyi (1990). The dimensions measured by this instrument are challenge-skill balance, action-awareness merging, clear goals, unambiguous feedback, concentration on task at hand, sense of control, loss of self-consciousness, transformation of time, and autotelic experience. Jackson and Eklund (2012, p.350) state together the nine dimensions "represent the optimal psychological state of flow; by themselves, they signify conceptual elements of the flow experience". Reliability estimates ranged from .80 to .90. A global measure of flow was preferred in this investigation owing to Jackson's (1999) and Pates, Maynard and Westbury (2001) contention that single-factor approaches tend to reveal incomplete information about the total flow experience.

Procedure

Participants were interviewed immediately after the completion of the final trial of the baseline phase. The goal of the interview was to obtain a first-person description of the psychological aspects of tournament play. To minimize interview bias a standardized interview process was developed and some of the interview questions were based on previous work (Orlick & Partington, 1988; Vealey & Walter, 1993).

The interview was composed of the following elements: (a) background information about best golfing achievements and experiences; (b) mental aspects needed to excel in golf; (c) mental strategies adopted during competition; (d) information about the participants' preparation for tournament golf; (h) information about the participants' expectations on the golf course; (i) information about the participants' preshot routines; (j) information about the participants' internal experiences during optimal performance; (k) information about participants' reactions to mistakes; and (l) information about participants' beliefs about what they need to do to perform well. Each interview lasted about 40 minutes. After the interview was completed, transcripts were returned to the participants for any feedback and to check the accuracy of the information gathered.

The first author analyzed the data collected from the interviews. The main aim of the analysis was to explore the experiential knowledge of each participant and gain an understanding of the psychological strategies they use during competitions. After gathering this information from the interview, the first author applied his academic and consultancy expertise to help participants fit their psychological strategies into a preshot routine for putting, driving, iron play, chipping, and sand shots.

Participant 1 chose to use a preshot routine for iron shots that involved creating a movie of the swing he needed to play the shot. For the driver, the participant used a preshot routine that involved imagining targets on the fairways and focusing attention on the targets during the swing. Before he hit a wedge, sand shot or chip shot, he chose to use a self-talk technique that involved instructing himself on how to play a shot and what he needed to do technically. His putting routine involved imagining the ball roll into the hole before he made his putt. Finally, before each routine the participant used self-talk techniques to create an arousing emotion he described as “exciting” and “confidence”. The words and phrases he used were “let’s get a birdie”, “let’s get the ball in the hole”, “come on” and, “go for it”.

Participant 2 decided to include the following psychological strategies in his preshot routine. Before he hit a drive, iron shot, sand shot and wedge shot, this participant employed a relaxation strategy where he would relax his hands using a progressive muscular relaxation technique (see Jacobson, 1938). In addition, he would use an imagery strategy whereby he would retain a picture of the target in his mind throughout the golf swing. Before each drive he imagined playing tee shots on the eighth hole at his home golf course. During his putting routine he created an image of his target (the hole) and then focused his attention on hitting the front of the ball. It should be noted that hitting the front of the ball was the participant’s most effective strategy for striking the ball.

Participant 3 chose the following psychological strategies for his preshot routine. Before hitting an iron shot, putt, chip and sand shot, he employed a best performance image. This involved reviewing the best shot he ever played with the club he had in his hand. Following this image, Participant 3 employed an imagery strategy whereby he would retain a picture of the target in his mind throughout his golf swing. His routine before a drive involved imagining playing tee shots at his home golf course and during his putting routine he focused on maintaining a clear image of the hole. Finally, before each routine, this participant employed auditory imagery to recreate music that he associated with memories of his best performances.

Following the establishment of the preshot routines, each participant was asked to practice their routine and assess its effects upon performance. Practice rounds took place everyday over approximately a 7-day interval between the baseline and intervention phase of the study. To ensure the participants adhered to this regimen, they practiced their routines in the presence of the first author. The selection process was considered complete when participants reported they were satisfied with the results associated with their preshot routines during practice.

Based on the recommendations of Weinberg and Williams (2006), the effectiveness and adherence of the routines were increased by spending a large amount of time with each player to gain their trust and to ensure they used their preshot routines during tournament play. Specifically, the experimenter traveled with the participants to each of their tournaments.

Practical Assessment Questionnaire

During tournaments the internal experience of the participants was monitored using an assessment questionnaire that included the following questions: *How did you feel during the performance?*; *What were you thinking during the performance?*; *Were you satisfied with the results following your preshot and post shot routines?*; *Were the procedures acceptable to you?*; *Were there any outside thoughts distracting you?*; *What was the effect of the routines?*; *Did you experience any problems?*; *What were your general beliefs about your performance?*; and *How much effort did you put into today's performance?*

The list of questions was adapted from Kazdin (1992), Kendall, Hrycaiko, Martin and Kendall (1990) and Pates, Oliver et al. (2001). This information permitted on-going assessment of the quality of participants' feelings, thoughts, and cognitions across the baseline and treatment phases. The data were analyzed by comparing the comments obtained in the baseline sessions to the comments obtained during the intervention phase of the experiment.

Social Validation Questionnaire

Following the completion of the intervention phase, participants were asked to provide information concerning the importance and the effectiveness of the intervention. This was based on the work of Pates, Maynard, et al. (2001), Thelwell and Maynard (2003) and Thomas, Maynard, and Hanton (2007). The participants were asked the following questions: *Did you perceive the routines to be important?*; *Were the routines acceptable?*; *Are you satisfied with the results?*; *Do you consider the changes in performance to be significant?*; *How satisfied were you with the routines?*; and *Has the routine proved useful for you?*

Results

Upon developing their preshot routines, all three participants experienced an immediate performance effect with only a few overlapping data points between the baseline and the intervention phase. Specifically, participant 1 improved from a mean stroke average score of 71.8 during the first baseline to a mean of 69.6 during the intervention phase, participant 2 from 70.8 to 68.7, and participant 3 from 71.5 to 68.5. The performance data for each participant are presented in Figure 1. The results indicate that a preshot routine developed using client-centered interventions improved golf performance.

During the intervention, participants 1, 2, and 3 experienced an immediate increase in flow with no overlapping data points between the baseline and intervention phases. Specifically, participant 1 improved from a mean flow score of 111 during the baseline to 139 during the intervention, participant 2 from 116 to 157, and participant 3 from 130 to 158. The flow data for each participant are presented in Figure 2. The results suggest that a preshot routine developed from the experiential knowledge of each golfer increased the intensity of the flow experience for all participants.

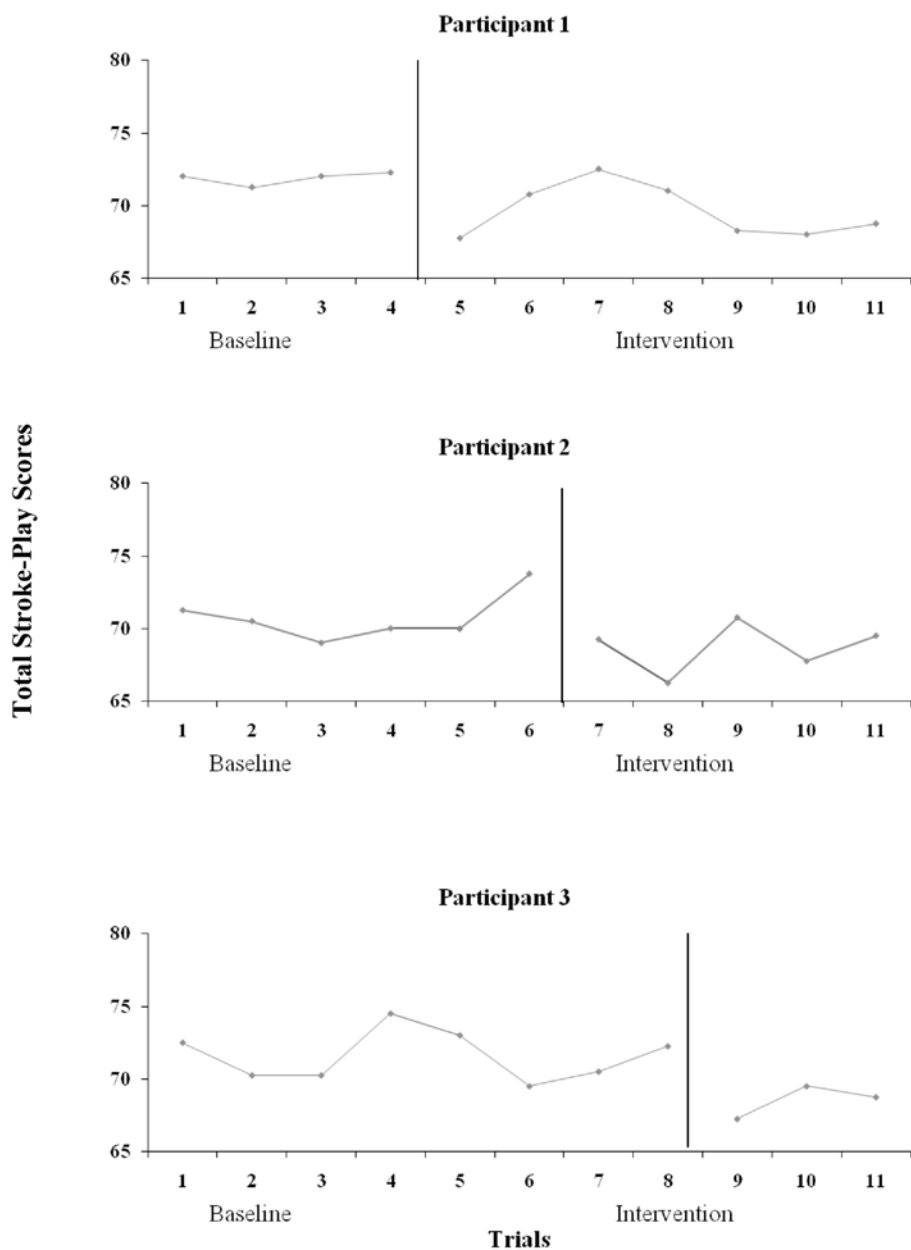


Figure 1 — Total Stroke-Play Scores for each participant on each trial.

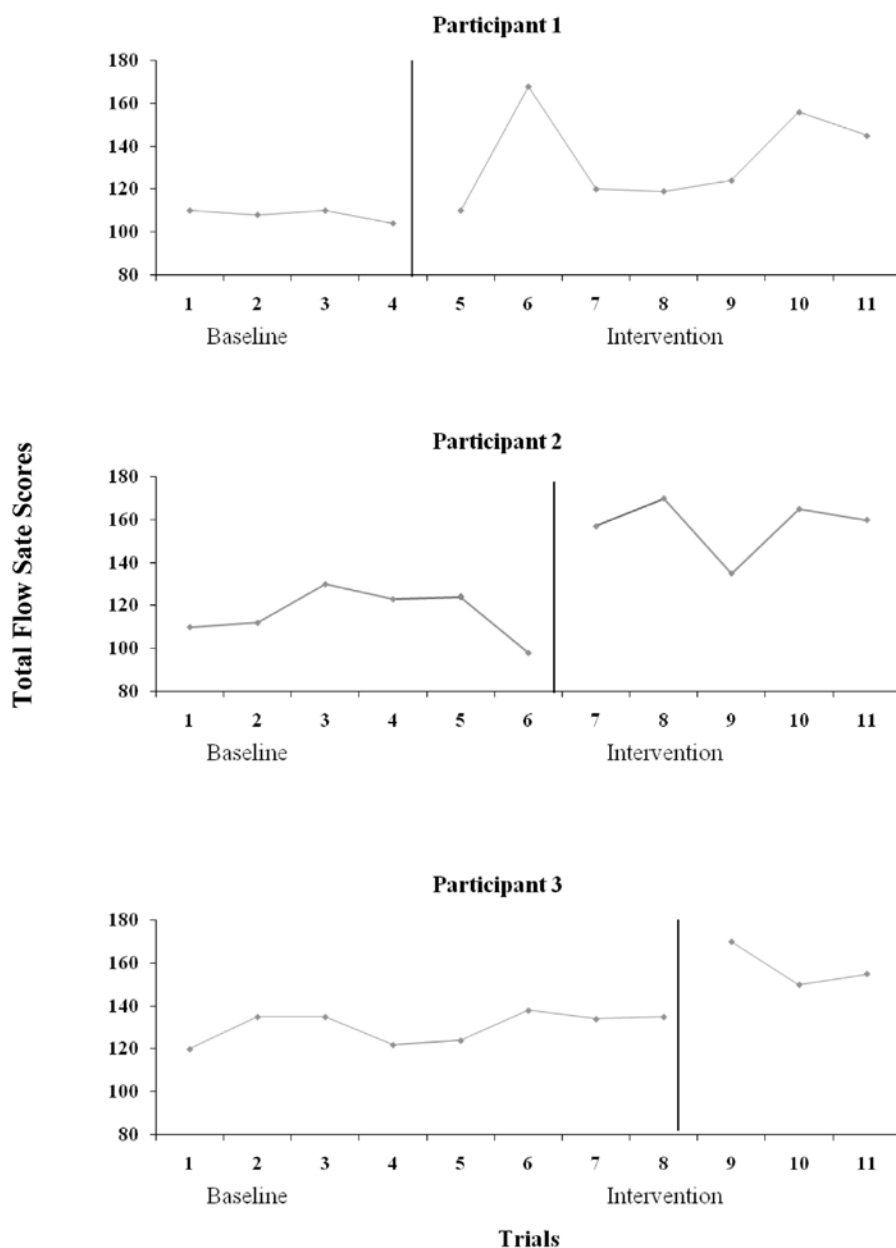


Figure 2 — Total Flow State Scores for each participant on each trial.

Practical Assessment Data

After finishing each tournament in the intervention phase, the participants responded to the practical assessment questionnaire to examine their internal experience of tournament golf. Participant 1 indicated that his preshot routine for driving and his iron shots (an imagery strategy that involved imagining targets on the fairways and an imagery strategy that involved creating a movie of the “set up” and swing, respectively), enabled him to focus his attention away from the mechanics of the golf swing:

My new routines stop me from thinking about my swing and steering my shots...It stops me thinking about how my swing is supposed to feel...I just do it without much thought about the movement.

He also intimated that his swing felt more automatic when he was engaged in the use of imagery strategies: “my swing feels easy”; and “it feels more free”. A similar experience was observed when he used his putting routine:

Seeing the ball role into the hole at the speed I want to hit it gives me confidence and stops me thinking about my stroke.

Participant 1 also reported that the routines stopped him from focusing on the consequences of his performance, and, in turn, this reduced his fear of performing poorly: “it stops me thinking about messing up”. In addition, his use of self-talk such as “come on” and “go for it” before each shot helped him to focus and expend more effort in his performances. Moreover, self-talk such as “focus on your routine”, “keep going”, and “you can make this” prevented him from getting frustrated and angry with the corollary effect of enhancing his self-confidence:

When I tell myself what I need to do it keeps me focused. . . When I lose my focus I play poor shots. . . Hitting bad shots is frustrating . . . It makes me angry. . . I find it hard to control my anger but if I tell myself good things I usually get better.

Participant 2 reported that the preshot routines he used for driving, iron shots, sand shots and wedge shots helped him to relax, focus his attention appropriately and stopped him from thinking incessantly about his swing:

The routine helps me relax, in fact I have never felt so relaxed on a golf course... it focuses my mind on the target and stops me thinking about the move... when I focus on the target I play my best.

The routine also prevented him from worrying about underperforming:

When I’m performing poorly it’s nice to know I now have something to think about... Before using these techniques I would panic because I had nothing else to help me but my swing thoughts.

In his driving routine, the image of thinking about his favorite hole, on his favorite golf course gave him greater confidence and helped him to relax:

The 8th at Drayton is my favorite hole, I always birdie that hole Thinking about it gives me confidence and a good relaxed feeling.

His putting routine that involved looking at the hole and then focusing on hitting the front of the ball enabled the participant to focus his attention away from the putting stroke:

Looking at the front of the ball stops me thinking about my stroke and making the putt...It makes my stroke feel better.

Participant 3 reported that imagining the best shots he ever played in his preshot routine for iron shots, putts, chips, and sand shots increased his confidence when compared with the baseline phase. He indicated he felt he was going to hit a great shot almost every time he picked up the club. The participant also reported that best performance imagery helped him to stop thinking about the consequences of the shot:

Imaging the best shots I have hit in my career makes me feel I can do anything on the golf course...I feel I am going to play great every time I play... Thinking of great shots all of the time gives me a buzz and stops me thinking of bad things.

An imagery strategy wherein he focused on retaining a picture of the target enabled participant 3 to swing the club more freely:

When I focus on the target it stops me thinking about the swing....I feel more free when I do this....

The routine used for driving involved imagining holes at his home golf course. This made participant 3 feel more comfortable. Feeling comfortable on the golf course was an important feeling for this participant; it enabled him to concentrate and control his attention:

I need to feel comfortable on the golf course. Reminding myself how I feel on my own course allows me to feel comfortable anywhere....When I don't feel comfortable it distracts my mind and I can't focus properly.

Interestingly, participant 3 used auditory imagery to control his emotions. More specifically, the music of Morrissey was used to help him feel more confident and energized. This feeling reminded him of the emotions he feels when he has his best performances.

I like singing Morrissey it reminds me of times when I perform well...It gives me energy... It gives me confidence and a good feeling.

Social Validation Data

Finally, it should be noted the social validation questionnaire revealed that all three participants were satisfied with the results of their routines and recognized that the routines had improved their performance, prize money earnings, and world rankings.

Discussion

The study demonstrates that a client-centered approach to consultancy may have a positive effect on flow states and the performance of elite golfers. The findings provide empirical support for the work of consultants such as Ravizza (2002) and Lindsay et al. (2007) who used the experiential knowledge of the athletes they worked with to develop performance-enhancing strategies.

The qualitative data revealed the golfers in this study employed a number of mental strategies during tournament play. These were, visual imagery, auditory imagery, self-talk, attentional control and muscular relaxation. Some of these strategies have received considerable attention in the sports psychology literature (e.g., see Bell & Hardy, 2009; Hardy, 2006; Karageorghis & Terry, 2011; Wulf, Lauterbach, & Toole, 1999). However, their effects on flow states and performance in real professional golf competitions have to the authors knowledge not been documented.

Perhaps one of the most interesting findings from this study was the use of auditory imagery “singing to oneself” by participant 3. Like Sam Snead and Bobby Jones before him, this professional golfer used this approach to control his emotions. With the exception of Bishop, Karageorghis & Loizou, (2007), who found junior tennis players use auditory imagery to mediate emotional states, researchers and consultants have rarely explored the efficacy of using this intervention strategy in their professional practice. Our study suggests the use of auditory imagery, as an intervention strategy, is worthy of further investigations in golf research.

Another important aspect of the current study was that the single-subject, multiple baselines, across-subjects design enabled the experimenters to be more confident that the changes in flow and performance scores were produced by the client-centered approach and not some other uncontrollable variable. The introduction of the client-centered approach in a staggered fashion and the demonstration of an effect when the preshot routines were introduced, suggests that the client-centered approach had some degree of external validity (Kazdin, 1992).

The possibility remains, of course, that the positive results are an artifact of both participant and experimenter bias. Indeed, neither was blind to the outcome and so experimenter expectations or the demand characteristics of the experiment may have influenced the results (Kazdin, 1992). There may also have been either a Hawthorne or Rosenthal effect (Rosenthal & Rosnow, 2008). Scrutiny of performers in a single-subject experimental design might heighten these effects. However, Drew (1976) observed, these effects tend to decline as the participants become acclimatized to being studied, so the extended length of the single-subject study could aid in controlling this effect.

It is also possible the positive results of the study were partly due to the fact that the methods employed by the consultant address many of the factors that severely reduce a consultant’s effectiveness. These include: (a) lack of time spent with individual athletes; (b) gaining athletes’ trust; (c) ensuring athletes systematically practice mental skills; and (d) maintaining consistent athlete contact (Weinberg and Williams, 2006). In addition, we believe the personality of the consultant, and the working relationship that developed between the consultant and the participants played an important role in the development and success of this client-centered approach. As Ravizza and Fazio (2002, p114) observed when reflecting on their

experiences as applied practitioners, “who they are has been a large part of their successful consulting relationships”.

Based on the findings of the current study, we have a number of suggestions for sport psychology consultants and researchers: (a) they should adopt a philosophy wherein they see the clients as experts; (b) invite the client to co-lead the development of interventions; (c) encourage a client to focus on their previous peak performances (d) undertake research into the psychological stratagems already used by athletes during peak performances because it will add to our knowledge and understanding of elite performance.

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