An Evaluative Case Study of a Psychological Skills Training Program for Athletes With Intellectual Disabilities

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The purpose was to develop an evaluative case study of six 3-hr sessions, spaced over 3 months, of psychological skills training (PST) provided to athletes with an intellectual disability who were training for the Basketball Australia State Championships. Participants were 7 males and 7 females, aged 15.8 to 27.1 years, with a receptive language level of 7 to 13.7 years, 2 female coaches, 2 psychologists, and 1 registered psychologist supervisor. Sessions focused specifically on stress management, with primary attention given to cue words, breathing techniques, and positive thinking. Findings, based on interviews and participant observations, revealed that all participants believed that the PST was appropriate and worthwhile.

Participation in sport by individuals with intellectual disabilities (i.e., known in some parts of the world as mental retardation) has increased considerably due to a focus on community integration in the provision of recreational activities (Castagno, 2001; Ninot, Bilard, Delignières, & Sokolowski, 2000; Moon, 1994) and the specific provisions that have been made by disability sporting organizations such as Special Olympics International and the International Paralympic Committee. Some debate continues, however, as to how participation should be organized and whether it should be participation for participation’s sake or whether it should be for competition (Gyogyi, 1996; Miller, 1987). It is our view that all levels of sport participation should be available for athletes with intellectual dis-
abilities. Further, as with any athlete, the level of participation should be determined by the individual athlete.

When athletes with intellectual disabilities are competing with the idea of maximizing performance, then sport science services, including sport psychology, should be available to them. A challenge to the profession of sport psychology is to determine what modifications in content and presentation are required to maximize the effectiveness of psychological skills training (PST) programs for individuals with intellectual disabilities (Hanrahan, 1995). This case study represents a preliminary attempt to respond to this challenge. For the purpose of this paper, PST is defined as the development of psychological skills and techniques (e.g., anxiety management, concentration, confidence) with the goal of improving sport performance (Weinberg & Williams, 1998).

As the PST challenge is addressed, it is important to note that despite differences in cognitive ability, athletes with intellectual disabilities are for the most part more similar than they are different to athletes without intellectual disabilities. For example, Zoerink and Wilson (1995) examined the competitive dispositions of athletes with and without intellectual disabilities. Competitive disposition was assessed via the Sport Orientation Questionnaire—Form B (Gill & Deeter, 1988) that yields scores for competitiveness, goal orientation, and win orientation. Competitiveness represents the desire to strive for success and achievement in competition. Win orientation represents a focus on interpersonal standards and winning in sport, and goal orientation focuses on reaching personal standards and goals in competition. The results demonstrated that males with intellectual disabilities were significantly more competitive than their female counterparts but not different from the athletes without disabilities. Male athletes without intellectual disabilities scored significantly higher on win orientation than athletes with intellectual disabilities did. Furthermore, for goal orientation, the only significant difference was between male athletes without intellectual disabilities and females with intellectual disabilities, with the males scoring higher. Zoerink and Wilson concluded that athletes with intellectual disabilities are more similar to than different from athletes without intellectual disabilities.

Sport Psychology and Athletes With Intellectual Disability

Despite calls by Asken and Goodling (1986) and Travis and Sachs (1991), there remains a paucity of research in the area of sport psychology and athletes with intellectual disabilities (Porretta & Moore, 1996/1997). The majority of the work that exists in this domain has been descriptive in nature (e.g., Hanrahan, 1995, 1998) or focused on individual psychological skills in a laboratory setting (e.g., Porretta & Surburg, 1995; Screws & Surburg, 1997; Surburg, Porretta, & Sutlive, 1995). Nevertheless, by examining this work and adapting findings from studies completed in nonsport settings, a case can be made for the likely success of PST for athletes with intellectual disabilities.

Perhaps the most widespread interest in applying psychological skills to individuals with intellectual disabilities has been shown in the area of imagery. An early study by Groden and Cautela (1984) demonstrated that imagery could be used to reduce inappropriate motor behaviors (e.g., rocking) in students with moderate mental retardation within the classroom. Surburg and colleagues have
conducted several studies focusing on whether imagery can be used to improve motor skill learning in populations with primarily mild intellectual disabilities. Surburg (1991), using a reaction time—movement time task, and Porretta and Surburg (1995), using a coincidence timing task, both showed that imagery plus practice improved performance beyond practice alone. Likewise, Screws and Surburg (1997) demonstrated that imagery practice enhanced performance by individuals with mild mental disabilities on both a cognitively oriented task (peg board) and a motorically oriented task (pursuit rotor). Porretta and Surburg (1995) postulated that the findings may occur because imaging successful performance increases self-confidence and motivation. However, no research has used imagery exclusively as a motivational factor to enhance the performance of motor skills in individuals with intellectual disabilities. Porretta and Surburg concluded that athletes with intellectual disabilities may benefit from the inclusion of practice appropriate imagery when learning skills.

Surburg, Porretta, and Sutlive (1995) employed a more ecologically valid laboratory task that involved throwing a ball at a target. As with previous studies, groups who supplemented practice with imagery demonstrated superior performance compared to nonimagery groups. Surburg et al. emphasized the importance of physical practice in conjunction with imagery practice and argued that since persons with intellectual disabilities are not adept at creating visual images, actual execution of the skill may help create effective images. The implications of this suggestion for the use of imagery for other purposes (e.g., for relaxation or increasing attentional focus and/or self-confidence) with this population is not clear. However, if further research demonstrates that tangible models are required to facilitate the development of effective images by athletes with intellectual disabilities, then videos could be used. For example, a video clip of an athlete performing well could be used to help develop confidence-building images. This issue highlights one of the major limitations in the research to date. That is, the focus has been on using imagery to facilitate learning and task performance, and research has not included the many other uses of imagery.

In addition to mental imagery research, some work has been conducted examining anxiety in athletes with intellectual disabilities. Levine and Langness (1983) found that adult basketball players with intellectual disabilities reported higher pregame anxiety than basketball players without intellectual disabilities. It was also reported that the athletes with intellectual disabilities demonstrated greater decrements in performance during the games. Porretta, Moore, and Sappenfield (1992) examined state anxiety in practice and competition for Special Olympic athletes. Despite finding that some athletes experienced increases in anxiety at competition, no significant differences were reported for performance. Porretta and Moore (1996/1997) argued that the insufficient research in this area makes it impossible to draw conclusions about the experience and effects of anxiety in athletes with intellectual disabilities.

In a nonsport setting Rickard, Thrasher, and Elkins (1984) demonstrated that individuals with intellectual disabilities can understand and follow instructions for four forms of relaxation training: muscle tension/relaxation, suggestions of relaxation, controlled breathing, and imagery. Individuals in the lowest IQ group (IQ range 40-54) experienced some difficulties but could still follow the instructions. In a case study, Travis and Sachs (1991) demonstrated that a swimmer with intellectual disabilities could learn progressive muscle relaxation and achieve a relaxation response. Hanrahan (1998) suggested that the main consideration when
teaching relaxation to athletes with intellectual disabilities is to continue using guided sessions rather than independent sessions, as these athletes will seldom complete a self-monitored exercise. However, this needs to be assessed on an individual basis, as some literature suggests that when taught and reinforced effectively, individuals with intellectual disabilities can self-monitor in other areas (Ashman & Conway, 1997; Ellis, Cress, & Spellman, 1993).

**Psychological Skills Training Programs For Athletes With Intellectual Disabilities**

Only one paper could be found that reported on the implementation of PST programs for athletes with intellectual disabilities. Travis and Sachs (1991) reported a case study of a swimmer active in the Special Olympics. The main focus of the PST for this athlete was managing competitive anxiety by learning to relax. The swimmer demonstrated the ability to differentiate between tension and relaxation and hence to learn progressive muscular relaxation and to associate a feeling of warmth (the swimmer’s descriptor) with relaxation. Unfortunately, for reasons beyond the control of the practitioners, the swimmer withdrew from the PST program before there was an opportunity to transfer the relaxation skill to the athletic environment. Despite this, the case study was instructive for what the swimmer learned and the information it provided on professional practice with this population. First, it highlighted that as in any practitioner-client situation, it is critical to develop trust and rapport. Second, communication at a level appropriate to the client was a prerequisite for success (i.e., need to keep instructions clear, consistent, and relevant to the task). Third, soliciting help from the client’s support network was useful for assisting learning away from formal sessions. Last, all the tools required to work with this population already exist for a well-trained and experienced psychologist.

Hanrahan has written several descriptive papers on the use of applied sport psychology for athletes with a variety of disabilities (e.g., Hanrahan, 1995, 1998; Hanrahan, Grove, & Lockwood, 1990). While none of these papers is specifically about PST programs for individuals with intellectual disabilities, she does highlight some general considerations when working with athletes with disabilities. These include treating them as athletes (the reason for working with them), allowing athletes to experience failure as well as success, and remembering that every individual is different. Hanrahan (1998) reminds the sport psychologist that athletes with intellectual disabilities demonstrate a range of physiological and psychological abilities. For example, athletes with intellectual disabilities demonstrate a range of abilities in motor performance (e.g., balance and coordination), literacy, abstract thinking, and concentration over long periods of time. Hanrahan (1995) suggests that given these possible limitations (and in keeping with good practice when introducing new skills to any learner), “instructions should be kept simple, skills should be broken down into smaller teaching components, sessions should be fun and enjoyable with practice times on specific activities kept short” (p. 509).

Given the variety of possible limitations that may be present within an individual with intellectual disabilities, it is important that sport psychologists working with these athletes focus on building on the strengths and abilities of each individual. This is best done by assessing the ability of the athlete rather than relying on labels like mild, moderate, and severe (Holland, Goodman, & Walkley,
For example, the sport psychologist should consider this question: What are the real factors that impact on performance for this particular athlete? These factors may include academic skills, cognitive ability, physical endowment, fitness, and experience.

While a reasonable argument can be made that athletes with intellectual disabilities have the potential to learn and benefit from the psychological skills generally included in PST, it is clear that attempts to conduct such training with this population have been limited. The purpose of this study was to develop an evaluative case study of six 3-hr sessions, spaced over 3 months, of psychological skills training (PST) provided to athletes with an intellectual disability who were training for the Basketball Australia State Championships.

**Method**

**Participants**

The participants were 14 athletes (7 males) aged 15.8 to 27.1 years who were members of the Queensland State men’s and women’s basketball teams for athletes with intellectual disability. The sampling design was intact groups. These athletes were preparing for a national competition, the Basketball Australia State Championships. The competition was organized and managed by Basketball Australia as part of their regular competitive structure. The men were the defending champions, and the women had finished sixth in the previous year. Their receptive language, as assessed with the Peabody Picture Vocabulary Test—Revised (Dunn & Dunn, 1981), ranged from 7 to 13.7 years (mean 10.8 years); this receptive language age is equivalent to typically developing individuals aged 10 to 11 years. The athletes had been playing basketball for between 1 and 6 years.

The coaches (both female) of both teams requested the assistance of a sport psychologist in the 3-month lead-up to the national titles. The coach of the men’s team had been coaching the state team for 5 years and was also the coach of the Men’s National Team. She is a member of the Queensland Academy of Sport Coach Network and had coached several women’s basketball teams including the Queensland Under 20s team. She holds a level 2 coaching qualification from the Australian Coaching Council. The women’s coach was a state level basketball player who also held a level 2 accreditation. This was the first year she had coached players with an intellectual disability.

Two trainee sport psychologists (1 male) worked together to provide the sport psychology service, with both attending all sessions. These trainees were in the final stages of their professional training (last year of a 2-year full-time course) and were supervised by a registered psychologist with expertise in sport psychology during this experience. This supervisor met with the trainees before and after each session to review the session plans and to discuss how each session had gone, progress made, and future directions. The supervisor attended two sessions to observe the trainees at work. In Queensland, it is legally mandated that all psychologists, regardless of discipline, are registered by the Psychologists Board of Queensland and referred to as “registered psychologists.” The code of ethics binding registered psychologists requires that they only practice within their area of competency, in this case, sport psychology. Recognized competencies are achieved through formal accredited educational processes and supervised experience with
clients (e.g., the program in which the trainees were currently enrolled). Hereafter, in this paper, the trainee sport psychologists shall be referred to as psychologists because the athletes and coaches perceived them as such.

Setting

Unlike previous studies that took place in laboratory settings, this study took place in an ecologically valid environment (training sessions on the court) and was constructed to address athlete needs. The initial approach was made to the supervisor by the sports development officer of the Queensland Recreation and Sport Association for People with Intellectual Disability (QRAPID) on behalf of the coaches. At the national tournament the previous year, the men’s coach had introduced imagery and a cue word (“ice”) to help the athletes focus on the task and remain calm. As the coach perceived some success from this experiment, she wanted to extend the use of sport psychology and approached QRAPID to identify possible consultants.

Procedure

Due to the exploratory nature of the project, a flexible methodology was required to collect data. Therefore, a case study method was used. According to Yin (1989, p. 23), a case study is “an empirical inquiry that: investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used.” The phenomenon investigated in this case study research was PST within an ecologically valid environment. Of the three types of case studies identified by Thomas and Nelson (2001), we chose the evaluative type. The evaluative case study is both descriptive and interpretive but “the primary purpose is to use the data to evaluate the merit of some practice, program, movement, or event. The efficacy of this type of case study relies on the competence of the researcher to use the available information to make judgments” (Thomas & Nelson, 2001, p. 281).

Multiple sources of data were used as recommended by Yin (1989). The principal sources of data for this report were the case notes kept by the two psychologists. These contained a record of the sessions conducted, observations made, and conversations with the athletes/coaches. Other sources of information included interviews with the sport development officer of QRAPID, the initial interview with the coaches, and subsequent inquiries from coaches requesting the program made to the second author prior to the Sydney 2000 Paralympic Games.

In an initial meeting with the coaches, issues to be addressed were discussed. The coaches believed that the athletes generally had difficulty preparing themselves prior to and during games, particularly if game plans changed. Specific issues that were raised during this discussion included team building, preparing for the Nationals experience, control of emotions, listening effectively and altering performance based on instructions, roles and responsibilities of bench players, physically and mentally preparing for competition, relaxation to cope with stress, preparing for the increased expectations of winning (specifically for the men), and attitude (e.g., response to winning/losing: even if scoreboard says they do not win, they are still winners).

The teams trained for a whole day (approximately 7 hr including breaks) approximately every second weekend, and the coaches requested input at each of
these sessions prior to the National championships (6 in total). Given the limited time available, the coaches were asked to nominate a particular area they thought would be most useful to work on and this was stress management. The psychologists structured six sessions that comprised 20-30 min direct contact with athletes plus time for observation of athletes and discussion with coaches (about 3 hr total time each session). Each session was evaluated using observations, anecdotal records, and specific clinical notes.

Results

Session 1

This session was an informal meeting with the athletes. The psychologists met with each team for about 20-25 min. The session consisted of an explanation of sport psychology and why psychologists were working with the team. Questions from the athletes were answered. Observations during the session indicated that the women’s team was chatty and the men’s team more reserved. There did not appear to be any communication or attention problems, although it was noted that there were lapses in direct attention to the psychologists with comments being made between the players.

Session 2

This session was aimed at rapport building and assessment of each athlete’s communication skills, with emphasis placed on the importance of listening. The main activity of the session was an activity called minefield (Rohnke, 1984). This activity consists of a roped off area filled with “landmines” (miscellaneous objects such as hoops, balls, sweatshirts). The object of the activity is to lead your blindfolded partner safely (i.e., without touching any landmines) across the minefield using only verbal instruction. As a familiarization exercise, the task was initially completed with eyes open before completing the task with the moving partner blindfolded. The roles were then reversed and the exercise repeated. As a number of people were being led through the minefield at the same time, the need to concentrate on what your own partner was saying was emphasized. A short debriefing session was conducted after the activity was completed. The purpose of this debrief was to highlight important points about listening and to relate the activity to basketball.

In addition, during this session each athlete was assessed individually using the PPVT-R—Revised (Dunn & Dunn, 1981). The test is widely used with populations of individuals with intellectual disabilities and has been found to be a reliable measure of receptive language. The test was conducted because the delivery of the program was in part reliant on the understanding of verbal instruction. In addition, verbal skills were used in discussions, verbal decision making, and role-playing scenarios. The results of the tests were described in the earlier section describing participants.

Evaluation of Session 2

The athletes’ activity was satisfactorily completed, and athletes followed the instructions easily. They participated in the debriefing discussion and could relate
times in basketball when it was difficult to listen (e.g., when the coach gives instructions during the actual game). The key point of “head up and looking at the speaker” was emphasized as important to indicating focus and listening. Rapport seemed to be developing with the athletes as indicated by them chatting and joking with the psychologists.

Session 3

The first goal of Session 3 was to review and build on Session 2: specifically, to develop a cue word that would remind the athletes to relax, focus, and listen. This was done as a group discussion with both squads together. The cue words that the athletes came up with were “chill” for the women and “ice” for the men. The previous year at the Nationals, the coach of the men’s team had introduced the idea of “ice” as a cue word for calming down, and the men again selected this word. Checks for understanding of the meaning of the word were made with each individual throughout the session. The coaches were encouraged to use the words during the remaining training sessions. This was viewed as particularly important in creating a tangible link between the off-court sport psychology sessions and the game of basketball.

The second goal of the session was to introduce a relaxation technique, centering, to the athletes. This technique is a diaphragmatic breathing strategy (Nideffer & Sagal, 1998). Athletes were taken step by step through centering and then practiced the technique themselves. When to use the technique was discussed.

Evaluation of Session 3

The rapport that had been established over the previous sessions was rewarded, as the athletes were attentive and responsive. The goals of the session, to establish a cue word and introduce a relaxation management technique, were achieved. The athletes, as indicated by their participation, relevant comments, and enthusiasm for what was presented, understood both parts of the session. The athletes responded correctly to the checks for understanding, which included the use of scenarios and questions during pauses in training. From the presentation point of view, the psychologists consciously ensured that during group discussions, each athlete contributed in some way. The session generated a number of thoughts and feelings related to stress that could be used to plan for future sessions. For example, the athletes found it hard to listen when it was noisy, there were balls bouncing, and when the pace of the game increased. Further, some thoughts and feelings associated with being nervous were these: I’m going to stuff up? Will I pass the ball well? I hope I don’t drop the ball, feeling tight, butterflies, stressed, needing to go to the toilet, shaking, teeth chattering, breathing fast, or holding breath.

Session 4

The goal of this session was to consolidate the previous sessions on the use of cue words and centering as a relaxation strategy. The emphasis was on encouraging the athletes to use the techniques in basketball relevant situations. A brief discussion with the group revisited the cue words (Could anyone remember them? What did they mean? When did you use them?) and inquired about attempts at using them and the success of any attempts. A similar discussion about the breathing
techniques was held. The remainder of the session was spent observing the athletes in training and practice game situations where stressful situations were created by the coaches. Where required, athletes were reminded to use the techniques. At the end of the session, a brief discussion with the athletes reviewed their experience with using the words and attempted to highlight any problems.

**Evaluation of Session 4**

Some of the athletes reported using the relaxation breathing and cue word in both basketball and daily life situations in the 3 weeks between the sessions. Examples of situations where they had used the techniques were when frustrated, when trying to sleep, and before free throws. During the observation period, it was noted that 4 athletes (3 males) in particular appeared to get very frustrated during play. Individual attention was paid to these athletes through one-to-one conversations that reinforced the use of cue words and breathing to remain calm and focussed. The coaches were observed using the cue words at appropriate times. Because several of the athletes had mentioned negative thoughts associated with being nervous, it was decided that in the following session, this issue would be addressed.

**Session 5**

By this time, the psychologists believed they had developed a better understanding of the abilities of the individual athletes and felt comfortable that they were capable of understanding and applying a more cognitive strategy. The goals of the session were to further consolidate the use of breathing exercises and cue words and to provide a cognitive strategy for managing negative thoughts. This new strategy, a type of thought stoppage, was introduced in the context of the importance of feeling confident. It was stressed that one way to do this was to say positive things to themselves about what they are going to do. Typically, in the teaching of these types of strategies, athletes were asked to identify times when they think things that make them nervous or doubtful (this could be linked to previous session where they had already identified such times) and what they think at these times. Positive replacement thoughts were then developed. In this case, the number of positive replacements was kept to a minimum to avoid confusion. Test scenarios were put to the athletes to check for understanding. Due to athlete and coach availability, Session 5 was conducted on different days for the two squads.

**Evaluation of Session 5**

Both teams responded well to this session. Their appropriate responses to questions and test cases indicated understanding of the new technique. With the men’s squad, the coach initiated a discussion about team member responsibilities, competition expectations, coping with losing, and team member goals for the Nationals. This discussion resulted in the development of some team goals for the competition and helped clarify what role people would fulfill and how each role was important. As the psychologists would not be travelling with the team to nationals, the psychologists discussed with the coaches the possible provision of audio tapes that reminded the athletes of the cue words, breathing exercise, and thought stoppage techniques. Both coaches agreed that this would be a good idea, and one coach requested a personal relaxation tape.
Session 6

This was the final session and was designed as a final review and consolidation of the three techniques taught (cue words, breathing techniques, and positive thinking). The session was conducted with the two squads separately. This was done primarily as scenarios were used, such as the following: If you are on the bus on the way to play a game and all you can think about is making a mistake, what could you do? Given the success of the men’s conversation about roles and goals in the previous session, a similar discussion was initiated with the women, and it also produced positive results.

Evaluation of Session 6

In response to the suggested scenarios, it was apparent that the athletes understood when and how to apply the different strategies. The discussion on roles with the women’s team (e.g., while on the bench, etc.) and on team goals appeared to be valuable for the athletes, and they came up with several goals that related to having fun and appropriate behavior (e.g., looking at the speaker when being talked to, cheering the team when on the bench).

Postcompetition Evaluation

After the athletes had returned from competition, it had been planned to have a group meeting to discuss their experience and evaluate the effectiveness of the psychological strategies, but due to relocation of the athletes throughout Queensland (a 1,727,000 km² area) this was not possible. However, it was possible to talk with six (3 males) of the players on the telephone. Four of these players (2 males) indicated that they had used the techniques, particularly cue words and relaxation breathing. The positive thinking was used to a lesser extent. The reasons given for use of the techniques varied. Sometimes it was because they were reminded of the strategies by a teammate who had noticed they were frustrated/upset, and at other times it was because they noticed they were upset or feeling uptight. The athletes were asked when they used the techniques, and this varied by technique and athlete. For example, the breathing technique was generally used the night before or immediately before the game. The cue word was used before the game, during the game, and by at least one athlete, at the free throw line. When asked whether the techniques had worked, the athletes said things like “It helped me to calm down,” “It helped me to get the basket in,” or “It relieved me.” These athletes also reported listening to the audio tapes that had been provided and said that the tapes were helpful for relaxation and for reminding them of the techniques.

One of the women athletes subsequently traveled to a tournament in Japan with the National Women’s Team. It was reported to us (by one of the original coaches) that during this tournament, she told her teammates about cue words. This led to the team adopting and successfully utilizing the concept during the tournament.

The coaches were also contacted and asked to evaluate, from their perspective, the effectiveness of the PST program. The coaches reported that they believed the techniques had helped the athletes to remember to relax and think about what they had to do to play basketball. The men’s coach reported that the entire championships had not gone to plan, due to injury and external forces, but the
players had been able to overcome some of this using the psychology training. She reported that she had been able to use key words to elicit correct performance responses and redirect players to the task at hand. This occurred during both game time and timeout situations. She believed that the systematic program had “shown enormous benefit during the game as players recognized key words and elicited correct responses to these words.” The coaches also believed that it had helped “everyone get along better.” Some of the players were selected for National teams that traveled to international tournaments. In a more recent contact with the men’s coach, she reported that these elite players had continued to use the techniques and had, in her opinion, greatly improved their ability to perform skills at the elite level during both competition play and down times. Overall, both coaches believed that it would be “valuable to continue” to have a sport psychologist work with the team.

Discussion

The purpose of this research was to develop an evaluative case study of six 3-hr sessions, spaced over 3 months, of psychological skills training (PST) provided to athletes with an intellectual disability who were training for the Basketball Australia State Championships. It is acknowledged that a limitation of this study was a lack of baseline data prior to the commencement of the sessions; however, the psychologists used the coaches who had been working consistently with the athletes to identify areas of need. In addition the time constraints of an ecologically, valid environment meant that preobservation was not feasible. Nevertheless, a number of valuable insights can be drawn from this experience of conducting a PST program with athletes with intellectual disabilities.

First, it was necessary to overcome the limiting preconceptions of what these athletes could do in terms of psychological skills training. In the early sessions, the psychologists were too conservative with limited expectations of the athletes. This was in part due to inexperience in working with this population and the predominant emphasis in the literature on what the athletes would not be able to do. Remembering the call by Holland et al. (1994) to assess the ability of individual athletes, and to concentrate on what the athletes could do rather than on what they could not do, was an essential step in the success of this PST program.

Second, it is essential that the instructions given are monitored to ensure that they are appropriate to the receptive level of the clients, although patronizing language is entirely unacceptable. For the psychologists on this project, this was challenging, especially as these athletes’ social experiences and social skill abilities were well above their receptive language age and the observations made about their general levels of understanding. These intraindividual differences are common in individuals with intellectual disabilities (Jobling, 1999) and provided an extra challenge to effective communication.

Third, the continual repetition of the psychological skills, with variety, seemed to contribute to the success of the program. Here the assistance of the coaches was invaluable as they could remind and reinforce in our absence. The key to the repetition was retaining enough similarity that the skill was repeated but including enough difference in presentation et cetera that the athletes were not bored or simply acting by rote. This was done through the use of scenarios, game simulations, and general discussion. The use of understanding checks was also useful. Mindful
of literature (Matikka & Vesala, 1997) that reports that this population has a tendency to acquiesce, we were careful to ask questions that required the generation of an answer that went beyond simple repetition or yes/no (e.g., Can you tell me a time when the cue word “ice” might be useful?). The importance of creating tangible links to actual basketball events also cannot be overemphasized. Furthermore, the positive feedback of the program was in part due to limiting the skills introduced to three key interrelated skills rather than trying to address all the issues raised by the coaches at the initial meeting.

**Conclusion**

With any PST program, the challenge is to match the program to the clients’ needs. When working with individuals with intellectual disabilities, a focus on limitations does not facilitate learning. The key requirement of instruction with this population is to build on the skills individuals have and to facilitate the development of strategies that they can understand and put into practice easily and with reliability. This evaluative case study has demonstrated that when these guidelines are followed, both athletes and coaches believe that a PST program is valuable. The researchers would encourage sport psychologists to work with this population if the opportunity arises.

To assist in the development of future PST programs, more applied research is required. For example, research employing a multiple baseline design could be used to examine actual behavior change as a result of PST in athletes with intellectual disabilities. Within the sport psychology literature, research on how, why, and when various mental skills are effective is important.

**References**


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**Author Note**

The case study was conducted while Trish Gorely was a staff member of the University of Queensland (as a joint appointment with the Department of Human Movement Studies and School of Psychology). However, she is now at the Department of Physical Education, Sport Science and Recreation Management, Loughborough University, which is where all the writing took place.