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Mission of the Journal of Excellence

Terry Orlick, PhD – Founder and Editor in Chief, the Journal of Excellence.

My mission with the Journal of Excellence is to fill some important gaps in our knowledge, actions and our lives, that are essential to the successful pursuit of personal and professional excellence. The Journal of Excellence is devoted to nurturing excellence in all human endeavors and all worthy pursuits. Our focus is centered on the pursuit of excellence in the working and performing parts of our lives, as well as our lives outside the workplace or performance domain. Our goal is to inspire excellence, provide a forum to discuss the positive pursuit of excellence, and share practical strategies and perspectives for pursuing meaningful high-level goals.

The Journal of Excellence is committed to nurturing a positive vision of education and training for better people, better performers and a better world.

There is much value in pursuing excellence, in education, sport, health, the performing arts, parenting, teaching, coaching, health care, political, government and business leadership, and every workplace. There is also much value in the pursuing excellence in quality living, quality relationships and the development of a higher level of humanity. This is the first and only journal, which has **EXCELLENCE** in multiple domains as its sole focus. The ultimate mission of the Journal of Excellence is to provide insights and strategies that will help us to collectively become more successful in the pursuit of performance excellence and more fulfilled through excellence in living.

My vision is a journal that is applied in orientation, relevant in content and wide ranging in application. We are committed to:

- 1) Learning from and sharing the experiences of exceptional performers and inspiring people.
- 2) Developing a more thorough understanding of the mental links to excellence.
- 3) Promoting excellence in performance and excellence in living.
- 4) Initiating positive real world change.

If you have experiences, applied research or meaningful insights that are relevant to the pursuit of excellence in any worthy human endeavor, for any age group, we encourage you to submit your material to the Journal of Excellence to be considered for publication.

The Impact of a Positive Living Skills Training Program on Children with Attention-Deficit Hyperactivity Disorder

Kealey Hester and Terry Orlick, Canada

Kealey Hester, Canada

Kealey Hester has been working in the fields of recreation and education for young children for over a decade. She recently completed her Masters Degree under the supervision of Terry Orlick at the University of Ottawa and is currently an Intensive Behavioral Therapist for preschool-aged children diagnosed with autism in the Toronto area. Kealey hopes to pursue further studies in the areas of behavioral intervention and select populations in the future.

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Abstract

Medication and psychotherapy have been used traditionally to treat the symptoms of Attention-Deficit Hyperactivity Disorder (ADHD). The purpose of this research was to evaluate the use of a mental skills training program, Orlick's (1998) *Positive-Living Skills (PLS)* program, on three male children ages 8 to 9-years-old with ADHD. The *PLS* program teaches children mental skills including relaxation, focus and distraction control. A multiple case study method was administered to determine (a) whether the participants enjoyed the *PLS* programs; (b) the extent to which the skills were implemented by the children on a daily basis; and (c) the effectiveness of the skills in facilitating self-control and focus management by the participants. The results of this study were extremely positive. The participants learned to relax, focus and control distractions. The *PLS* program empowered these three children to assume responsibility for their actions, to manage ADHD behaviors, and provided positive alternatives to negative behavior.

Introduction

Extensive research has been compiled surrounding the use of stimulant medications in managing the behaviors of children diagnosed with Attention-Deficit Hyperactivity Disorder (ADHD), however only a small number of have endeavoured to examine the use of self-modulated programs in managing this disorder. Initially recognized in the Diagnostic and Statistical Manual for Mental

Disorders in 1980 (American Psychiatric Association, DSM-III, 1980) ADHD is a behavioral disorder recognized by two core characteristics, inattention and impulsivity/hyperactivity. The symptoms of ADHD can manifest at varying degrees and are identified by behaviours that impede academic performance, social interactions, and the completion of developmental tasks (Krueger & Kendall, 2001). Children diagnosed with ADHD often exhibit aggression,

frustration, lack of internal control, diminished intrinsic motivation, and limited reaction to external motivators. Subsequently, depression and low self-esteem become secondary symptoms (Leipold & Bundy, 2000). Children diagnosed with ADHD are also subject to poor peer relations due to aggressive conduct, and are often rejected due to their overzealous and insensitive behaviours (Blachman & Hinshaw, 2002). The inability to maintain attention and the exhibition of impulsive behaviours also limit the learning abilities of the child, which become increasingly detrimental to academic achievement and results in lower I.Q. scores (Kerns, McInerney & Wilde, 2001; Kruger & Kendall, 2001). An ADHD diagnosis also impacts on the family situation, sometimes causing disruption and hostility in parent and sibling relationships with the diagnosed child (Lobar & Phillips, 1995). Discipline concerns and low family cohesiveness contribute to an increased potential for a conflict-ridden situation, often resulting in increased frequency of maternal depression, marital conflict, and elevated intensity of maternal discipline (Bor, Sanders, & Markie-Dadds, 2002; Lavigne, Arend, Rosenbaum, Binns, Christoffel, & Gibbons, 1998; [NIH], 2000). ADHD often persists into adulthood, with most children experiencing a decrease in symptoms during mid-to late adolescence (Hupp & Reitman, 1999; Wood, 1999). The effects of an ADHD-diagnosis that persist into adolescence and adulthood are likely to result in low employment and socio-economic status, antisocial behaviours and mood problems (Waschbusch, Pelham, Jennings, Greiner, Tarter, & Moss, 2002; Wood, 1999).

ADHD is diagnosed by assessing a series of pre-established characterizing factors administered by a physician and/or child psychiatrist (Pillow, Pelham, Hoza, Molina and Stulz, 1998). The diagnostic criteria requires

that the child experience six or more specified symptoms of inattention and/or hyperactivity-impulsivity for at least six months to an extent that is maladaptive and inconsistent with the characteristic developmental level (American Psychiatric Association, 1994).

Traditional treatment methods targeted the medical community and medical practitioners as the most appropriate to manage ADHD. Few attempts have been made to teach children mental skills that may help them manage their own ADHD behaviors, perhaps because they are considered too young to be able to administer any form of treatment. Despite the controversial diagnosis and treatment protocols, ADHD remains the most commonly diagnosed behavioral disorder in children (National Institute of Health [NIH], 2000), with a boy-to-girl proportion of 3:1 (Wood, 1999). Currently, between 5 and 10% of school-aged children in North America have been diagnosed with ADHD (Hoagwood, Kelleher, Feil, & Comer, 2000; Johnston, 1996; Waschbusch, et al., 2002) stimulating research to effectively manage the behaviors. These numbers alone provide support for the need to conduct research on appropriately designed programs to teach children skills to effectively manage their own behaviors.

While research on relevant self-control programs for children with ADHD is clearly warranted, no reports have utilized a mental skills program in an attempt to teach children with ADHD important skills like relaxation, focusing and distraction control. The purpose of this study was to introduce and evaluate the effectiveness of select skills from Orlick's *Positive-Living Skills (PLS)* program (1998), a mental skills program for children, to determine; (a) whether the participants with ADHD enjoyed the *PLS* programs; (b) the extent to which the skills

were implemented by children diagnosed with ADHD on a daily basis; and (c) the effectiveness of the skills in facilitating self-control behavior management by the participants with ADHD.

Review of Literature

Medication Therapy

Research estimates that 3 to 5% of school-aged children are currently undergoing psycho-stimulant medication therapy to control and manage behaviour symptoms associated with ADHD (Blachman & Hinshaw, 2002; Hoagwood et al., 2000; Janetti, 2000; Johnston & Leung, 2001). Methylphenidate, also recognized as Ritalin®, Concerta®, and Metadate®, is the most commonly prescribed psycho-stimulant medication for ADHD. Over seventy percent of ADHD-diagnosed children are using this medication, with a significant increase over the last two decades (Klein-Schwartz, 2002). Less commonly used psycho-stimulant treatments for ADHD include dextroamphetamine and pemoline (NIH, 2000). Race, sex, age, socio-economic status and family relations do not appear to impact the effectiveness of methylphenidate, although low intelligence may be associated with an inferior response to treatment (Wood, 1999). Methylphenidate serves the child by blocking dopamine transporters and increasing attention signaling, resulting in a decrease in activity while increasing concentration (Vastag, 2001). Use of the medication has been reported to result in dramatic improvements in attentiveness, reduced aggressive behaviours and more self-control of emotional reactions, measured by teacher and parent observation. Psycho-stimulants also reportedly improve cognitive abilities and emotional maturity, seemingly “normalizing” the ADHD behaviours of diagnosed children (Hoagwood & al., 2000; Spencer, Biederman, & Wilens, 2000). The medication has varying results in improving academic achievement, with the

most recent studies concluding that increased academic achievement is due to improved attentiveness and is not a direct result of the psycho-stimulant (Moline & Frankenberger, 2001). While methylphenidate is effective in the management of ADHD symptoms in a large number of cases, it is not without negative side effects. Side effects of this medication, with children, include nervousness, headaches, insomnia, anorexia, dizziness, dry mouth, irritability, and weight loss (Wood, 1999). The medical community has also expressed concern regarding the potential for overdose with children who are prescribed methylphenidate, as the tablets may be abused when used orally, injected, or snorted (Klein-Schwartz, 2002). Moline and Frankenberger (2001) confirmed that 34% of children who are prescribed methylphenidate to control ADHD symptoms have been approached by other students to either sell or trade the medication.

The immediate effects of methylphenidate use have been well documented, however the long-term effects are less well known. Vastag (2001) reported that only two large studies attempted to determine the long-term effects of methylphenidate use. One study stated that drug addiction was more prevalent while the other study demonstrated an opposing conclusion. The Canadian Pharmacists Association (2001) indicated that, not unlike other psycho-stimulant medications, methylphenidate should be administered cautiously to patients with emotional instability, as the patient may develop dependency. Vigilant individual supervision during drug withdrawal is imperative, as depression and chronic over-activity may occur.

Recent evidence suggests that medication to treat ADHD is more effective when paired with alternative treatment strategies, such as

cognitive behavior therapy, psychotherapy, stress management training and emotional counseling (Klein-Schwartz, 2002; Pelham, Vodde-Hamilton, Murphy, Greenstein & Vallano, 1991; Stubbe, 2000). Methylphenidate is used to decrease the occurrence of inappropriate behaviors, but does not serve to increase positive social behaviors in children diagnosed with ADHD (Hupp et al., 2002).

Positive-Living Skills Program

Positive-Living Skills (PLS) outlined in the book *Feeling Great, Teaching children to excel at living* (Orlick, 1998) provides a basic mental skills program designed for children, through a cognitively based approach that may be self-administered following the initial teaching. The *PLS* program provides adults, living or working with children, with activities to help children learn positive-living skills. Created by Dr. Terry Orlick, the *PLS* program was refined using feedback from children and professionals in the area of child development. *PLS* is targeted at children ages 4 to 12-years-old. The program teaches positive-living skills including; relaxation, stress control, highlights, positive thinking, focusing, and positive imagery. A separate manual provides step-by-step instructions to introduce the skills to children, activities for practicing the skills, an audio compact discs (CD) of all the program skills, and homework suggestions.

Gilbert and Orlick (2002) introduced Orlick's *PLS* program to three classrooms children: grade one, a combined grade one and two class, and a combined grade five and six class. An experimental group in each classroom received four or five, 15-20 minute *PLS* intervention sessions a week, taught by their teacher, for a period of nine weeks. Control groups in the same school at the same grade level maintained their habitual classroom schedule during the intervention

sessions. Using pre- and post-tests, the researchers were able to determine that by using the *PLS* program, the teachers were successful in teaching their students to relax themselves, to apply stress control strategies to their lives, and to identify and increase the positive, or meaningful events and occurrences in their day. A comparable study in an alternative school, which incorporated many ages of children, found similar results. Administered by the teachers to grade one through grade students, relaxation and stress control skills were successfully integrated into real world situations by the students. Both teachers and students reported having enjoyed the program and felt they had been positively affected by the experience (Taylor & Orlick, 2004). Cox and Orlick (1996) found, using heart-rate monitors, that children from Kindergarten through grade six could lower their heart-rates following a 10-week intervention using the *PLS* skills, while the control displayed no improvements. They also reported that 96% of the children gave specific examples of successfully applying the relaxation and stress control skills they learned in class to their daily life.

The benefits of *PLS* skills training were also demonstrated in select or special populations, including children with chronic illness (Koudys & Orlick, 2002). A four-month intervention was used to teach the *PLS* skills to a child with cancer and their primary caregiver with field notes and interviews used to assess the program. The child learned a variety of positive living skills and was able to use them both inside the hospital environment, and in other situations. The researchers also reported a decrease in crying and an increase in proactive responses to pain when the child was undergoing treatment for cancer. Learning the *PLS* skills, including muscle relaxation, diaphragm breathing and positive imagery, enhanced

the child's ability to cope with treatment and improved his overall quality of life. The caregiver also found the skills helped her to manage her fear and stress better, thereby being better able to provide more effective assistance to her child (Koudys & Orlick, 2002). Klingenberg and Orlick (2002) introduced skills from the *PLS* to a family with a child with a physical disability and a cognitive delay. Ten weekly interventions were conducted to teach the skills adapted from the *PLS* program. Interviews were conducted during week 5 and week 10 of the intervention program. The results indicated that the family perceived better overall family functioning and reported improved coping skills. The family also reported that regardless of the demands of each family member, the interventions served as an opportunity for the family to re-energize and spend enjoyable time together.

Teaching children mental skills related to positive personal development, at school or at home, leads to overall growth of children, particularly when someone who cares is guiding the learning process (Orlick, 2002). Based on a series of studies done on the *PLS* program, and extensive applied work using the *PLS* activities with children, Orlick concluded that teaching children positive-living skills (mental skills related to personal development) is extremely effective (Orlick, 2002). This study assessed the extent to which this proposition held true for children diagnosed with ADHD.

Methodology

The purpose of the study was to assess the enjoyment, application, and effectiveness of Orlick's *Positive Living Skills* program (Orlick, 1998) for children with ADHD. A qualitative, multiple case study, was carried out with 3 male children diagnosed with ADHD. Two participants were 8-years-old and one was 9-years-old. The participant

selection was completed by posting information in a facility frequented by families of children with ADHD.

The participants had been previously diagnosed as having ADHD by their family physician or child psychologist, as per the criteria established in the Diagnostic and Statistical Manual for Mental Disorders, 4th edition (DSM-IV, 1994). The participants were undergoing physician-supervised treatment for the symptoms of ADHD using medication, and had maintained their prescription for a minimum of 4 months, thereby providing for a bodily adjustment to the medication (Canadian Pharmacists Association, 2001). None of the children were under medical care for other medical conditions and none had previously participated in research related to the topic. The consent of each participant and their parent(s) or was obtained prior to the research commencement.

Program

The *PLS* program was administered to each of the participants individually by the first author of this article. At that time she had ten years of experience working with children in recreational and academic settings, and had training in behavioral and cognitive disorders, and interventions. The researcher, in conjunction with her supervisor (second author), selected the skills to be taught and was very familiar with their teaching and implementation. The skills selected were those designed to teach relaxation, focus and distraction control. The eleven intervention exercises used in this intervention all focused, either in part or in full, on skills to increase relaxation, strengthen focus or limit distraction. The relaxation component of the program taught children how to relax and calm down. The focusing component taught children to concentrate and direct their focus. The distraction-control component taught the children skills to maintain focus

during distractions. Some intervention exercises incorporated more than one of these skills. A brief overview of the intervention activities can be found in Table 1.

Table 1. Activities Used from the PLS Intervention activities (Orlick, 1998)

Activity - Length (mins.)-Description

Basic Spaghetti Toes - (6:07)-Tense and relax their muscles

Treasure Hunting for Highlights - (6:16) - Focus on finding happy things everyday

Umbalakiki- (5:51) - Learn to shift focus

Changing Channels - (5:10) Switching from negative to positive thoughts by using an internal remote

The Great Little Listener - (4:43) - Listen to a story and learn to focus

One-Breath Relaxation - (5:35) - A slow breath, exhaling stress and tension

Tree It and Changing Channels - (4:14) - Focus on one of two stories being told

Focusing Through Distraction - (5:43) - Perform a math task, with distractions

Special Place Relaxation - (4:11) - Image calm and beautiful places

Jelly Belly – (6:39) - Relax by controlling abdominal breathing

Quiet Lake – (3:54) - Use imagery to relax the mind and body

The intervention consisted of ten 35 to 45-minute sessions, with two sessions each week for a 5 week period. The one-on-one intervention sessions were conducted in ei-

ther the ADHD parent resource centre or in the participant's home, with parent's present in the room or in a nearby room. The scheduling of the sessions was planned with each individual family, and was organized not to interfere with either academic or extracurricular commitments. Sessions occurred on weeknights, mostly in the two hours directly following the child's return from school.

The initial four sessions introduced the participants to the intervention activities, and provided an opportunity for the children to practice the skills. Each participant and the researcher listened to the selected audio CD exercises. The researcher then asked the child to identify what they thought was the purpose of the exercise, for example, the purpose might have been to relax, to focus, or to stop distractions. The participant then practiced the skill without the use of the CD.

Approximately three audio CD exercises were presented in each session for the initial four sessions. The children also used their log books to identify their level of relaxation and focus prior to, and following each CD exercise. For the next six sessions the child and the researcher repeated specific CD exercises and together identified, and discussed specific situations where the program skills might be used in daily life. The participant and the researcher listened to the exercises on CD and then practiced the exercise without the CD. An outline of CD activities used for each session is shown in Table 2

Table 2. Session Schedule for Intervention Method - Introduction and Teaching Session - Intervention Activities

Session 1
Basic Spaghetti Toes
Treasure Hunting for Highlights
Umbalakiki

Session 2
 Changing Channels
 The Great Little Listener
 One-Breath Relaxation

Session 3
 Tree-It and Changing Channels
 Focusing Through Distraction
 Special Place Relaxation

Session 4
 Jelly Belly
 Quiet Lake

**Method - Practice and Discussion
 Session - Intervention Activities**

Session 5
 Basic Spaghetti Toes
 Practice and Discussion
 Treasure Hunting for Highlights

Session 6
 Umbalakiki
 Changing Channels

Session 7
 The Great Little Listener
 One-Breath Relaxation

Session 8
 Tree-It and Changing Channels
 Focusing Through Distraction

Session 9
 Special Place Relaxation
 Jelly Belly
 Quiet Lake

Session 10
 Reviewed all exercises with CD
 Discussed activities

Sometimes distractions were introduced, such as an open window, the TV on, or the researcher fidgeting with paper to further simulate and practice the use of the exercises in daily situations. The researcher used

a log book in the last six sessions to allow the children to identify their level of relaxation and focus before and following the use of the skills, both with and without the audio CD. The log book was also used to illustrate situations where they had used or may use the skills in daily situations.

During sessions, reinforcement for on-task behaviours, such as listening and sitting appropriately, was provided in the form of verbal praise, such as “good listening, I like your sitting, great paying attention”. Verbal prompts, such as “listen carefully, time to pay attention”, were used to regain the attention of children if they appeared to be distracted.

The researcher was aware of the importance of the researcher-participant relationship when introducing an intervention and conducting qualitative research. This relationship allows for meaningful communication and open and honest interview results. The importance of listening and really hearing the participant, as presented by Rubin and Rubin (1995), assist in constructing this relationship throughout the research experience. The researcher provided a comfortable and safe environment by interacting in a calm, caring and professional manner at all times. The parents were informed of the researchers’ graduate experience in qualitative research, through both class work and previous interview experience. The researcher shared her background in behavior analysis and her experience working with children in recreational and academic settings. The parent and participant interviews also began with general questions to begin from an unobtrusive vantage point and to gain a basic knowledge of each participant’s interests.

Role of Parents

Each participant and parent received an outline of the selected intervention activities

(Appendix D) from *PLS* (Orlick, 1999) and the audio CD to use at home and share with their family. Parents were encouraged to remind their child to use the skills in daily life. The researcher briefed the parents at the end of each session about the skills discussed during that session, and some of the situations the child had identified as areas where they may be implemented. The researcher then informed the parents that they could practice the skills with their child and encouraged the parents to provide verbal prompts to their child for using the skills, if they identified an opportunity.

During intervention sessions, parents were encouraged to join in and listen to the CD, but were discouraged from participating in the researcher-child discussions. They were provided with a note pad and pen where they could make notes of ideas or suggestions relating to the log book activities or the intervention activities completed. At the end of the session parents could then share their ideas with the researcher and their child. This was done to limit disruption during the sessions.

Pre-intervention Interview

The purpose of the pre-intervention interview was to gain a general understanding of the participant's treatment history, their particular behaviors associated with ADHD, their ability to remain focused and their general ability to control distractions.

The researcher conducted the pre-intervention interview the week prior to the start of the intervention. The participant interview had parent(s) present while the child responded to open-ended questions. The participant was also asked questions about their ability to focus in different situations, times when they were distracted and their own description of not being able to focus.

The child participant then left the room and the parents were interviewed regarding situations when their child was able to concentrate, strategies used by the family to manage the behaviors, and their description of the ADHD behaviors they observed in their child.

Post-intervention Interview

Following the completion of the ten session, five week intervention, the participants and their parent(s) engaged in a post-intervention interview. The post-interview was scheduled 2 to 3 weeks after the completion of the five-week intervention. The participants were asked to respond to questions that related to whether or not the participants enjoyed the *PLS* program, whether or not the participants used the skills, and the participant's perspective on the effectiveness of the skills that they did use.

The parents were also interviewed, again with the without the child participant being present. They were asked questions about their perception of their child's enjoyment of the program, their opinion of whether the program skills had been effective for their child, and their views on their child's application of the skills to daily life.

The researcher audio taped the pre-intervention and the post-intervention interviews and transcribed the interviews verbatim. The participants and parents were provided with a written copy of the transcripts to read and review together, and all confirmed the accuracy of the content.

Log book

A log book was introduced as part of the intervention. Each participant decorated their own log books with pictures and coloring. One or two log book pages were completed by the participants per session to target the specific mental skills being

learned or practiced that session. The pages completed during that sessions were either paired with listening to the intervention exercise on CD or after practicing the skill without the CD. The researcher collected the log books at the end of each session and kept them until the following session. During the log book exercises, participants often requested that the researcher write out longer responses for them due to their inability to spell correctly. In these cases, the researcher transcribed the participants' responses verbatim, and then read them to the participants again to verify accuracy. In these cases the researcher indicated on the log book page that the responses had been transcribed by the researcher.

The log book provided the children with an opportunity to further explore and evaluate intervention activities. The contents provided questions to initiate reflection, evaluation and discussion. The primary purpose of the log book was to facilitate better mastery of the mental skills through use of illustrations and written comments by the children.

The log book provided participants with evaluation scales where they could rate the effectiveness of using the skills. They could also comment on additional areas explored, including possible situations for applying the skills, and a list to catalogue which exercises had been learned. The log book served to generate opportunities for the researcher and the participants to discuss the intervention exercises and skills following listening to the intervention activities on CD. The participants colored the pages assigned for each activity and were encouraged to make notes of ideas or thoughts they had on the intervention activities they were doing. The researcher facilitated the process by reading the directions and encouraging the partici-

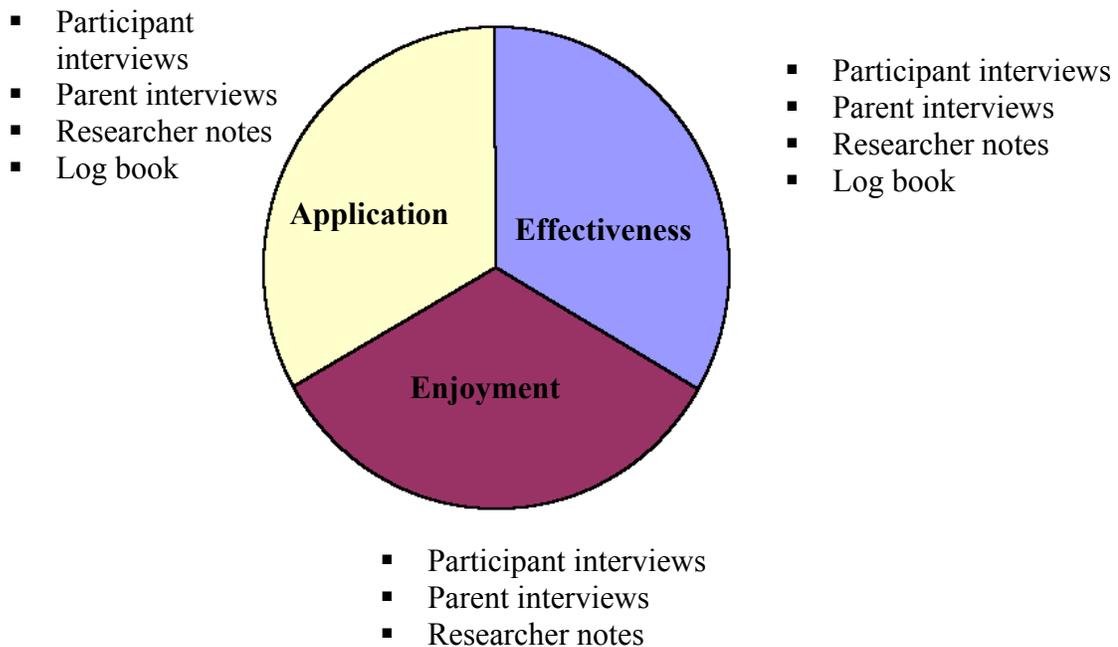
pant to discuss their picture or ideas. The log book also provided an opportunity for the children to recall specific situations where they had used the program skills, or situations where they could have, but did not use the skills.

Researcher Notes

The researcher kept brief notes on each session with each participant. Following each session, the researcher recorded information relating to what was done in that session, what went well, any problems or concerns expressed by the parents or the participant, the participant's reactions to the intervention activities presented and any relevant or unique session details. Notes were used to allow the researcher to recall details about what transpired with each particular participant while running sessions with three different children over the course of the intervention period.

Results

The post-intervention interviews, log books and researcher notes were analyzed to assess the overall effectiveness of the program (see Figure 1). Prior to the study, the researcher identified 3 primary categories of information that would be assessed, including enjoyment of intervention activities, application of skills learned, and effectiveness of the application. These three primary areas of assessment were based on previous research on the *PLS* program, the needs of children with ADHD and discussions between the researcher and her supervisor. The following Figure indicates which data sources were used to evaluate each of the research categories.

Figure 1. The data sources that contribute to each of the three research categories.**Case 1**

Cal was an 8-year-old boy who was diagnosed with ADHD when he was 6-years-old. At the time of the research he was taking methylphenidate to treat the behaviours of ADHD and had been part of an ADHD group therapy session with children his age for eight months. During the pre-intervention interview Cal's mother explained that he had many typical symptoms of ADHD.

He is excited all the time, even when I know he is tired, he cannot stop himself. He gets frustrated because I want him to sit for a meal or to do his homework. He yells a lot, sometimes to be heard, other times just to yell...I often have to repeat instructions, like making his bed, six or seven times. I know it is not his fault, he cannot focus, he gets lost in other things, but not like a typical child.

He really seems to want to pay attention, but he just can't sometimes.

Cal's mother explained that since he began the medication a year ago, he is more able to maintain a level of focus when talking to another person or completing a task, but far less than his 6-year-old, non-ADHD brother.

When asked about favorite activities, Cal explained that he used to play hockey and he loved it, but the coach said he had to leave. Cal's mother explained, "He was just too anxious, he didn't know how to calm down. If they were winning, he was up the walls, if they were losing, he yelled, screamed, and got penalties for being unsportsmanlike". Cal also explained that he was unable to stay focused at school, and was often sent to the principal for recess. "She [teacher] sends me there all the time. I say one little thing and I hafta spend recess with the secretary, inside. Nobody listens when I say I didn't do it".

Cal's mother later said that Cal is quick to complete his work and has a high academic standing, but once he is finished, he doesn't sit and read like other children, or talk quietly.

When asked what it felt like to be focused, Cal responded "Like water, I mean like being there. Then I know what to do, and everybody likes me. My friends like me more, and mom too". When he tried to explain how he felt when he couldn't focus, Cal said, "Like, like nobody cares. I try, I do. I try to pay attention. But it is like nobody can make me, even me... I feel like I am shaky, like I can't do anything right". Cal responded quickly when asked about situations where he can stay focused. "I can play PS2 (videogame) forever. And I pay attention to TV really good. Sometimes when I play with my brother, but sometimes not". Cal's mother explained that he can watch TV or play video games for an intense amount of hours.

He has this amazing ability to pay attention to those things. And he is good, he knows what to do to go to the next level. Even TV is easy for him to watch, he knows all of the Simpsons® episodes by heart, I think. I sometimes want to video myself asking him to do stuff, like clean his room, and see if it works. But it probably wouldn't, I don't think.

Enjoyment

When Cal was asked about the intervention activities, he was quick to announce his approval of the PLS program. He mentioned enjoying all the parts of the program, but had particularly enjoyed One-Breath Relaxation, a relaxation skill.

I do it all the time, like at school, or when I play soccer. And in the car

mom tells me to do it when I get loud. And my teacher says I did it and she taught the class. Now we get to do it after recess and stuff when we are hyper.

Cal's mother reinforced his dedication to using the One-Breath relaxation, saying that she had immediately noticed him using it after the second session, when it was introduced. She had also heard him using Special Place Relaxation before bed, quietly talking to himself.

He would frequently ask me to put the CD in when we were driving to school or somewhere. He likes listening to the Focusing through Distraction one. He is always asking me to make sure he did it right. And I even heard him teaching his little brother to do Jelly Belly once.

She also mentioned that Umbalakiki had been a favorite of his, and that she had many times told him to use Changing Channels when he was in a difficult mood or easily frustrated.

Cal was asked about when he used the skills and he said,

I use them all the time. I do them at school, and in the basement when we are playing, or with my friends. And when I have to be quiet, like when we visit Nana. Some I do with the CD, but I can do a lot on my own too.

Application

Cal brought his PLS CD to school and soccer practice. He introduced his teacher and coach to the program so that they could facilitate its use outside the home. The parents encouraged the teacher and coach to prompt him to use the program skills if they ob-

served situations where he might need to relax, shift focus or manage his behaviors.

Cal was asked to provide more detail on how he uses the program skills in soccer or at school. He stated that he used One-Breath Relaxation when he got excited or could not focus. “I take a slow breath when I get crazy like that. Some days I take lots of breaths. But mom says I am good at it”.

In the log book, participants had the opportunity to complete two pages for each new program skill introduced. The first page completed provided the participants an opportunity to brainstorm situations where they might use the new skill they had just finished listening to on the CD. Cal had a multitude of situations to suggest for implementation, and most of these situations were repeated for each new program skill introduced. A sample log book page that Cal completed for the Focusing Through Distraction CD exercise is shown in Figure 2. The following list includes the situations suggested by Cal where he might use one or more of the program skills in daily life, including at school, at hockey, during soccer, at the doctor, at church, while doing homework, and while playing outside. Participants were encouraged to update the list of possible situations for application and their actual situations of application in their log book pages as they used their skills or had new ideas for situations to apply them. The researcher suggested adding to the lists during each session.

Cal, and the other participants, also completed a separate page for each program skill that illustrated where the children had actually used the skills. Cal repeatedly reported specific areas where he actually applied the program skills. For example at school, doing homework, at the hospital and playing soccer.

Cal’s mother said she would often encourage him to use Basic Spaghetti Toes while she was making dinner, and he would just relax and become calm enough to sit through dinner. The family also listened to the CD on the way to church, and Cal was able to sit through two 45-minute church services without being disruptive. Once he was calm after listening to the CD, he would colour or read during the service to keep from running and yelling. Cal did require the occasional reminder to use the skills during church and when visiting people, but he was quick to identify which program skills to use, and his mother said he was almost always successful in choosing one that was effective.

Effectiveness

When asked if the program had helped him, Cal responded with an enthusiastic yes

Cause I can do stuff now. Like sit and listen to the teacher. Not always, but sometimes. And I can play soccer. Mom said if I learned to calm down, I could. And I scored two goals last week. I only gets two warnings from the coach to calm down, and the other kids did too.

The researcher notes cited a specific incident in session 7. Cal, a child who had previously been removed from hockey, due to his inappropriate behaviours, literally ran to share the news of his permission to join the soccer team with me. At the end of that session, his mother became emotional as she shared that she had feared her son would never be able to participate in recreational activities without direct parental supervision prior to the PLS program.

Cal and his parents had previously been informed that he could no longer play on the hockey team because he was unable to con-

trol himself and his outbursts during the games. Therefore he and his parents considered his ability to appropriately participate in soccer and control his inappropriate behaviours as a milestone accomplishment and attributed it primarily to the PLS program. They clearly stated this in their post-intervention interview.

Figure 2. Cal's list of locations where he could use the skills learned from the Focusing Through Distractions activity.



Cal's mother pointed out that his teacher and coach had been aware of his use of the PLS program and would sometimes remind him to use his skills if they thought he might lose control or blow up. She reported that the instances of going to the principal's office had also decreased drastically since starting the PLS program.

He still goes, but when he does, he tells the principal what he should have done before she even asks. He

tells her he should have used this program skill or that program skill. The school is very impressed with this change.

In his log book scales on self-evaluation of relaxation prior to and following the use of One-Breath Relaxation, Cal frequently evaluated himself as stressed prior to doing it, and calm after doing it. Cal completed six relaxation evaluation scales during the course of the PLS program. He rated himself as having gone from a little stressed to very relaxed five out of six times, and going from very stressed to a little relaxed the one remaining time.

Cal was also a frequent user of the focusing skill called Changing Channels. In his log book, he rated his independent use of the Changing Channels on four separate occasions. On each assessment responded that yes, using Changing Channels to refocus had been effective for him. Cal's third self-assessment of Changing Channels, taken in session 6 of the intervention, is presented in Figure 3.

Cal's mother noted that when he was tired or sick, it became more difficult to engage him in using the program skills, but that he still tried.

Cal emphasized that he will continue to use the program skills. As he phrased it, "Well they work, why would I stop?" His mother echoed this remark, commenting that they had been so effective, she wished this had been available sooner to her. While Cal still had behaviours that he could not completely control, he was more frequently able to use his program skills to help himself maintain or regain control. His mother commented on how his behaviours had improved.

Figure 3. Cal's logbook entry on using Changing Channels at school and its effectiveness.

CAL.

Changing Channels

Date: January 28/04

Did you try to change channels or refocus today?

Yes No

What happened?

Cal: Transcribed Verbatim by researcher: I was trying to focus but I was looking outside of school. So I changed channels.

What did you do to refocus?

Channels

Did it work?

Yes A little No

Since the second week, (of the PLS program) I could see a change. He would really try to control himself. Even asking what a program was called so he could use it. He is less antagonistic of his brother and is able to listen better.

He can follow instructions now to do something without three repeats. He still needs to be overseen, and sometimes he will say, 'Mom, let me breathe first, then tell me what to do.

The family now uses the programs actively with both children. Each parent has a copy of the CD in their car and they often play it going to school, church, and work, or even to the grocery store

Before, when he was bouncing off the walls, we couldn't stop him, besides sending him to his room. Now, we have a tool, and a tool that he enjoys, It isn't a punishment. It's like we say, 'here, you need this now, it will help' and he accepts that.

Case 2

Tom is an 8-year-old boy diagnosed with ADHD 18 months ago. He is currently taking medication to manage his ADHD behaviours and also participates in regular psychotherapy. He used many short, non-descript answers in both interviews and used his log book primarily to express his opinions about the program skills.

When asked to discuss the particulars of Tom's behaviours, his mother explained that, He likes to be the centre of attention. But there has to be consequences, he will sit out, because he will act out. I have to repeat myself 55 times... And hyperactivity, acting hyper. The struggle to get him to do his homework.

When Tom was asked about situations where he found it hard to maintain attention, Tom explained that he found it hard to focus at school, or at his desk. And at home, he found doing his homework to be terribly hard because he simply could not focus to get it finished. He explained that he had no techniques to allow him to focus in necessary situations. "I just fail because I can't focus".

Tom's mother pointed out that he can focus during desirable activities, such as video games, building with Lego, and playing with cars. "He can do it if he wants to. It's gotta be what he wants though". Tom also plays hockey, skis and mountain bikes.

Some of the strategies Tom's family had used in the past to manage his behaviours included taking away items and removing preferred activities.

Enjoyment

In the post-interview Tom was quick to comment on his enjoyment of the program. "I liked it, I still do". He listened to the intervention activities frequently in the car or before bed, to both relax and focus. He explained that he enjoyed using it at these times, and he would often borrow his mother's CD player to listen to the tapes alone. Tom clarified that he enjoyed the intervention activities most when he could practice them a couple of times in a row. His mother discussed his use of the program as follows. "It's different from therapy...and he actually pulled out the CD without me pushing him". His mother was pleased with this observation, as she had had difficulty in the past motivating Tom to engage in some activities.

Application

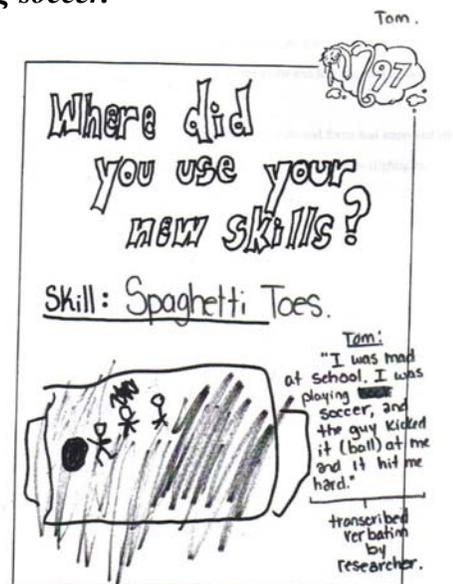
The use of the program was integrated as a routine into Tom's life, which his mother believes contributed to its overall success. Tom said, "I listened to it before bed, or sometimes in the car. It is just kinda part of the day". His ability to integrate it as a part of his schedule allowed him to readily accept it. In his log book, Tom identified school as a primary location to utilize the program skills. He also indicated that during intense hockey games, when the fans were particularly loud, the relaxation skills were useful. Finally, he discussed that when he was angry, upset, or frustrated were ideal times to apply the program skills.

In his log book, Tom indicated that he would use the program skills in many situations, including during tests, at home, before bed, during meals, and when he was angry

or upset. In his log book, he listed a variety of situations where he successfully implemented the program skills, including hockey, school, homework, when people were yelling, when doing work in class, and on tests.

The following example from Tom's log book (see Figure 4) presents a situation when he had actually applied the Spaghetti Toes activity, the one he determined worked best for him.

Figure 4. Tom's logbook entry on using Spaghetti Toes at school when playing soccer.



Effectiveness

Tom recognized that his ability to relax and focus improved after engaging in certain intervention activities, such as Highlights, The Great Little Listener, and Umbalakiki. Tom's self-assessment of his level of stress prior to, and following their use, consistently showed favorable results. He experienced a reduction in stress and a transformation into a more relaxed and focused state. Through his log book, Tom illustrated various ways in which he effectively used the PLS pro-

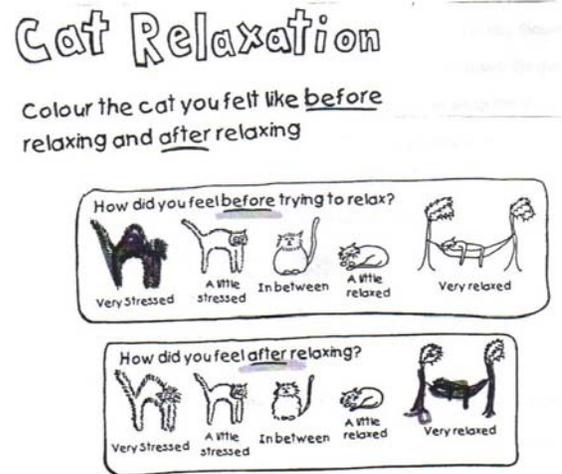
gram skills. Tom had already started to experience more academic successes, and gain a better grasp of his own ability to relax and focus early on in the *PLS* program. At the beginning of the fifth session, as recorded in the researcher notes, Tom was sitting at the table with a book when the researcher arrived. He shared that he had received his highest grade ever in math that day, and had already begun studying for next week's test. The first program skill for that session was Basic Spaghetti Toes. When he was told the session would start with Spaghetti Toes, Tom announced that he had in fact used Spaghetti Toes that very day, to relax and focus before his math test.

Tom completed six self-assessments using the cat relaxation scales throughout the intervention. He assessed himself on this scale as having gone from a little stressed to a little relaxed 3 out of 6 times, from very stressed to a little relaxed 1 time, and from very stressed to very relaxed on the final two occasions. Tom's final cat scale, completed after practicing the Spaghetti Toes activity, is shown in Figure 5.

Tom and his mother both commented in the post-intervention interview that learning to relax had contributed significantly to his overall ability to focus. His mother felt that simply learning the skills to relax allowed him to focus and gain an overall confidence in himself.

Tom also completed the Changing Channels assessment page in his log book on three occasions. In two instances he reported that "yes" Changing Channels had worked to refocus, and in the other instance he reported it had worked "a little".

Figure 5. Tom's logbook entry on the effectiveness of his relaxation strategy on the Cat Relaxation Scale.



Tom's mother said she witnessed a significant improvement in his behaviours after using the *PLS* program.

I've seen a big change in his school work...I'd say the one area I've noticed the most is where he would lose it and throw tantrums. They're becoming more of a minimum. And the outbursts, he'll catch himself...he is starting to think a bit more before he does things. It's a work in progress.

Both Tom and his mother agreed that it was the entire *PLS* program that contributed to Tom's improved behaviour management, and that no specific program skill could be identified as contributing more than others. He had used many of the skills and felt that each helped him to control himself.

It was clear from Tom's log book, that his ability to relax and focus had improved after completing certain intervention exercises and working on certain skills, such as High-lights,

Spaghetti Toes, The Great Little Listener, and Umbalakiki. His self-assessment of his own level of stress prior to and following the use of these skills consistently indicated positive results, including reduction of stress and shifting to a more relaxed and focused state.

Case 3

Bobby, a 9-year-old male, was diagnosed with ADHD 18 months ago, and is currently undergoing physician-supervised acupuncture and has been using methylphenidate for six months to treat his behaviours. When asked if it was sometimes hard for him to stay focused, the question was repeated twice before he could pay attention long enough to absorb the question, and answer. Bobby found it hardest to focus when he was in school or doing homework. His father mentioned that Bobby is an artist. “It’s the only time I can get him to sit still. Give him some paint and paper and you could leave him for hours. But anything else and you can’t keep him down”. Bobby echoed his father’s comments when asked to describe situations when he is able to focus. “When I am painting, or drawing, or using clay stuff, then I can focus. I know what I am doing. And I am good at that”.

Bobby described his inability to focus as, everything being more interesting than what he is supposed to be doing at that time. “I can find a hundred million stuffs to look at and talk about when I hafta do something. My teacher is always saying, ‘find one thought’. But I can’t do that. I have a lot to think about”. Bobby’s father explained that many “issues” exist around daily routine. Because Bobby is in constant need of direction, when left to his own devices, he will rarely complete tasks such as brushing teeth before school, eating lunch or dressing adequately to go outside.

Strategies the family had adopted for dealing with the ADHD behaviours included having Bobby repeat back instructions given to him, and being sure that clear expectations are being set and maintained for him daily.

We have a picture schedule that tells [Bobby] what is expected of him before school, after school and after dinner. If he forgets, or if he becomes distracted, we simply point him to the schedule. It has stopped the constant yelling between us and him, or at least we yell less.

Bobby referred to the picture schedule when asked what he does to stay focused in situations where it is necessary, “I go to the schedule and figure out what’s next. Then I go do that. It helps me...I also try really hard when mom and dad are talking, to pay attention. I don’t always listen, neither does my friends”.

Bobby’s father explained in the pre-intervention interview that meal times, church, or even going to a movie are very stressful for the family.

He just can’t sit there and listen; he needs to be up, doing something. We have stopped taking him to church because he was so disruptive. And movies, well we rent them now, and that way he can run around when the mood strikes him. I am actually surprised he sat for the whole interview.

Bobby did in fact sit for the entire interview with the researcher, but it is important to note he was constantly moving, needed the questions to be repeated multiple times, and was unable to maintain eye contact.

Enjoyment

In the post-interview, when Bobby was asked how he felt about the program, he responded by saying “I really liked the CD stuff, and I loved the art, but the programs were hard

to do on my own. I learned how to do Highlights really well.” His father supported this statement by saying that Bobby enjoyed listening to the CD, and did so almost daily.

Of all of the participants, Bobby’s reaction to the program was the most enthusiastic, which is clear from the researcher notes. On all occasions, except the very first session, Bobby ran to meet the researcher in the driveway to his house, already had the CD ready to go in the stereo and had a pencil case ready to work in his log book. At the end of sessions, he often shrugged his shoulders in a pleading way, and asked for five more minutes. This indicated that Bobby had a positive experience with the *PLS* program.

Application

Bobby and his parents were encouraged to use the *PLS* programs everyday. His parents said that his ability to illustrate his highlights appeared to relax him and allowed him to better focus on the rest of the day.

Bobby discussed his use of the program skills outside session.

One-Breath Relaxation was good if I was calm, but if I was bouncing off the walls, I couldn't do it. Mom would put the CD in and then I could calm down. I would relax and kinda pay attention to just the guy's voice.

His father agreed that it was easiest for Bobby to use the skills if the CD was present; however the family had been practicing

with him to help him learn to relax on his own.

He definitely concentrates on the CD. It is amazing to see him focus on anything other than art, or maybe TV. But he would listen to the CD over and over. It has become part of his routine, built in, that he listens to one program after school, one before homework and one before bed.

In his log book, Bobby had many suggestions where he might use the program skills. His suggestions included at school, with friends, doing homework, in the car, in gym class, during piano lessons, and when his parents were talking to him. When he completed his list of situations where he actually applied the *PLS* skills, his list included while doing homework, when reading, at dinner, before bed, and while watching television. Bobby’s uses were focused primarily on his home environment, most frequently with his parents, before bed or when he was trying to relax before a meal. He did occasionally use the skills during homework, but they were limited to Changing Channels and One-Breath Relaxation.

When asked to discuss the program skills best suited to Bobby, his father said that for after school, Special Place Relaxation was best, and Bobby’s favorite. Before homework, Bobby generally listened to Muscle Relaxation or Focusing Through Distractions. And before bed, Bobby always chose Basic Spaghetti Toes. The other intervention activities were used interchangeably through the day, including Highlights and the Great Little Listener. Changing Channels was favored by the parents, and became a commonly heard phrase for Bobby. He said that “Mom and dad are always saying ‘change your channel’ if I am being negative or having a bad day... I guess it reminds me.”

Effectiveness

Bobby found that the program skills worked for him, however, he and his parents agreed he sometimes had a difficult time applying the skills on his own.

In times when he needed to use them, he often had a hard time thinking to use them. If his mother or I even said the name of program, he would really try to use that skill. Highlights were good for him. He would get really frustrated or upset, and just by saying 'highlights' he would rush to get paper and draw some good things about the day.

When asked if the program had helped him, Bobby said that he was able to relax better now and was starting to be able to focus better, particularly when being given directions or instructions. He acknowledged that he had difficulty using the skills on his own, without the CD, but said he would certainly continue working on them.

Bobby completed the Changing Channels self-assessment log book page four times. Bobby indicated that he was able to refocus all four times when using this program skill, although he specified he had used the CD on each occasion. This was supported by the researcher notes. Bobby's third self-assessment for Changing Channels, taken from his log book, indicated that he enthusiastically felt this intervention activity had worked.

Bobby also used the cat relaxation scale to evaluate his own ability to relax following the use of a PLS program skills. Of the 6 scales he completed, he indicated having gone from a little stressed to very relaxed three out of six times, and having gone from very stressed to a little relaxed the other three times. Bobby's final cat scale, completed after using the Quiet Lake activity

showed that he clearly felt relaxed after using this intervention activity.

Bobby's parents said that they had begun to see improvements in his behaviors after completing the first half of intervention sessions. According to the researcher notes from session nine, Bobby and his father were excited to share the news that Bobby had used his new-found skills to telephone his Grandmother and engage in a lengthy discussion. His parents were quick to point out his previous inability to maintain a thirty-second conversation on the phone, and the great milestone they felt this phone call was for both Bobby and his parents.

Bobby's parents said that they were impressed with the success Bobby had experienced with the program. They commented that his ability to even have a simple conversation on the phone was improved. When he started to become distracted, he would take a deep breath and then pretend he was doing the Great Little Listener program. His parents also emphasized that they felt it was very important to continue to use and refine these skills.

As a final note, Bobby sat through his entire post-intervention interview, approximately 11-minutes, without needing a single question to be repeated or asking to leave. He wiggled in his chair, but made eye contact and provided well thought out answers. In his pre-intervention interview (7 weeks earlier), Bobby was very inattentive and distracted. He struggled to remain seated and required many questions be repeated due to his inattention. A review of the researcher notes indicated that Bobby's ability to remain engaged in the interventions had increased dramatically over the 10 sessions, with less verbal prompts required to remain on-task as the sessions progressed, and none required in the final 2 sessions. The dramatic

difference between the pre and post-intervention interviews was very evident to Bobby's father. He commented that he had observed Bobby using One-Breath Relaxation during the post-intervention interview to relax and remain focused. Bobby's father's final comment was, "He is a different kid. He tries harder and can really be a part of things now. He is much easier to be around, not just for me, but the whole family".

Challenges to the research

This research presented three main challenges. The first challenge was the overall behavior management required to facilitate the intervention process. All three participants demonstrated issues in focusing and were all easily distracted. The researcher managed these behaviors by showing respect for each child and by using positive verbal praise for on-task behaviors throughout the session. This positive verbal praise occurred at a variable-interval of approximately three minutes. This time-based reinforcement allows for verbal praise for on-task behaviors that varies around a predetermined time. In this case, approximately every three minutes worked well during the session.

The second challenge faced by the researcher was the off-task behavior exhibited by all of the participants at some point during the intervention sessions. This was managed by using verbal prompts to pay attention or return to the task. This was effective in most situations. When a participant was not easily returned to task using a verbal prompt, a two minute break would be encouraged. The child could get a drink, go for a quick walk, or talk about their distraction. The researcher would then quickly return to the task with the child, often increasing the variable-interval of praise for on-task behaviors to 30 seconds intervals for the initial

few minutes in order to further reinforce the on-task behaviours. The variable-interval would then return to about 3 minutes once the child was on-task for 2 minutes.

The final significant challenge facing the researcher in this study was the interference of parents and siblings during the intervention sessions. During the initial interview, the researcher had clarified the necessity to exclude the direct participation of the siblings from the intervention sessions. However, parents were encouraged to involve siblings in the practice and listening to the CD activities when they did them on their own at home. Parents were requested to redirect their other children from the intervention session areas, and it was suggested that they provide highly enjoyable alternative activities to dissuade siblings from attempting to participate. Verbal reminders at the start of sessions were provided for the parents who had previously failed to keep their other children away from the sessions.

Parents, who themselves, attended the sessions, were provided with a pad and pencil to note any comments or suggestions relating to the activities and intervention activities the researcher introduced to the child. This gave the parents a task to focus on and helped them refrain from suggesting situations or events, or answering questions for their child during the session. At the end of the session, parents were encouraged to share their notes with the researcher, who would then sometimes introduce some of their ideas at the next session. These three ongoing challenges directly faced by the researcher through the process of delivering the intervention activities, were sufficiently managed through the aforementioned means and did not disrupt the sessions to any significant degree.

Discussion

The findings of this study clearly indicated that these three children, diagnosed with ADHD, who participated in the PLS program (Orlick, 1998) benefited from learning the relaxation, focus and distraction control skills. These encouraging results support the findings of previous studies (Cox & Orlick, 1996; Gilbert & Orlick, 2002; Klingenberg and Orlick, 2002; Koudys and Orlick, 2002; Taylor & Orlick, 2004) all of which found the PLS programs to be effective in improving the relaxation and focusing skills of children from select population, including those with special needs and chronic illnesses. The outcome of the current research ADHD children is perhaps best served by discussing the enjoyment, application, and effectiveness of the program for these children.

The participants enjoyed the PLS program activities and found them to be engaging and fun experiences. The enjoyment of the intervention activities was due to two factors; the design of the activities, and the fact that they worked. The participants enjoyed the child-specific design of the program. Doing activities and applying the skills was fun. This supports the findings of Cox and Orlick (1996), and Taylor and Orlick (2004) that children really enjoy the PLS program activities. The PLS program activities were also identified by all of the parents as positive and relevant, and easy to use.

The participants enjoyed discovering that they have the ability and the skills to contribute to their own treatment and well being. The ability to actively participate in the treatment of one's own diagnosis is empowering and can contribute to an overall improved prognosis (Tyson, 2000; Miranda & Presentacion, 2000). By providing the participants with relevant skills to self-administer strategies or "therapy" to treat their be-

haviors of ADHD, it appears to have provided better focus and more self control, which in turn, has the potential to enhance their quality of life.

The application of the PLS skills to daily life, was essential in ensuring an effective use of these program skills. The participants were able to integrate the relaxation, focus and distraction control skills into many aspects of their daily lives. In their log books, the children identified many situations where these skills were used effectively, including when doing school work, in peer relations, for family cohesiveness, during recreational participation and preparing for sleep. These findings support the findings of previous studies (Cox & Orlick, 1996; Gilbert & Orlick, 2002; Koudys & Orlick, 2002; Klingenberg & Orlick, 2002; Taylor & Orlick, 2004) that found children effectively use the PLS program skills outside the teaching environment to relax, focus and see things in a more positive light.

Two of the participants (8-year-old Cal and 8-year-old Tom) and their parents found that their children easily generalized the PLS skills to all of their environments, and were capable of identifying appropriate situations and self-administering the skills. This supports earlier research by Cox and Orlick (1996), and Taylor and Orlick (2004) that elementary school children implemented the skills into many real world situations. Gilbert and Orlick (2002) also found that children who were taught the PLS skills used them both inside the classroom setting, as well as outside the teaching environment.

The other participant with ADHD in this study (9-year-old Bobby) also gained significantly from the intervention activities and applied them in multiple contexts. However, when compared to the previous two participants in this study, Bobby appeared to

rely more on the CD, verbal prompts or reminders to use the skills in different situations where they may be beneficial. This family identified the generalization of the skills to different domains as important and challenging, and were therefore committed to persist in encouraging their child to integrate the skills into his daily life. Given that this was a 5 week intervention program, and the previous school-based interventions were 10 and 12 weeks, it is likely that with continued use and encouragement, generalization of application and less reliance on the CD or verbal prompts will improve with time.

On a daily basis, the diagnosis of a child with ADHD impacts the entire family, sometimes causing discipline concerns and low family cohesiveness, with the potential to lead to greater distress, including maternal depression and marital conflict (Bor, Sanders, & Markie-Dadds, 2002; Lavigne & al., 1998; [NIH], 2000). All of the families in the current study integrated the PLS skills into their daily lives, with frequent use at home, at school and in recreational settings. The participants and their parents all indicated that they will persist with the PLS program as an integral part of their family cohesiveness and positive behavior management. The overall findings of the current study supports findings of previous studies by Klingenberg and Orlick (2002) and Koudys and Orlick (2002) both of which were conducted on families with special needs. In each case, better family functioning and improved coping skills resulted from using the PLS program.

All three families in the current research study reported experiencing improved family dynamics following the implementation of the PLS program into their lives. These families all found that using the PLS programs resulted in less anxiety and less stress

related to their child's behaviors and in their own lives. More specifically they reported that there was less stress for them and their child, particularly in social settings. Families reported experiencing greater ability for family outings, increased participation in community events, and better cohesiveness between parents, siblings and their children diagnosed with ADHD.

The enjoyment and application of the PLS skills are the first steps to successful implementation. The final and perhaps most important step is the effectiveness component of the PLS program skills in promoting positive behaviors while diminishing inappropriate behaviors. The participants, from this select ADHD population, found that the skills they learned were useful in managing their behaviors, particularly when they had previously identified, during the sessions, possible situations where they could use the skills. These findings support similar findings in studies using the PLS programs with select populations (Koudys & Orlick, 2002; Klingenberg & Orlick, 2002).

The participants confirmed that they were able to learn the relaxation, focusing and distraction control skills, and use them either independently or with the use of the CD program to relax, to focus and to improve their ability to control distractions. The findings of this study demonstrate that the parents reported an improvement in how their children handled their ADHD behaviors by replacing disruptive behaviors with positive alternatives. They identified improved behaviors, including less tantrums, improved listening skills, greater attention span, less frustration and more self-control as results associated with the use of PLS program skills.

The findings of this research are remarkable, considering the limited time of the interven-

tion (5 weeks, 10 sessions). The success can be attributed to the use of a program that is exceptionally well-designed for children that can be self-directed, and self-controlled. It is effective in its simplicity, by being easy, enjoyable, and relevant for these children.

ADHD children are best served using a holistic approach to incorporate different approaches in order to decrease inappropriate behaviors, while increasing the use of appropriate behaviors. The Positive Living Skills Program (Orlick,1998), paired with other appropriate treatment, provide potentially valuable tools for both children with ADHD and their parents. It is important to include children in the treatment process and empower them to deal with their own ADHD behaviors in constructive ways. The major stakeholders, the children and their parents, all expressed their pleasure in being able to learn and use these skills themselves to enhance their own lives – in addition to, or apart from their medication treatment.

Future studies with the PLS Program would gain from longer interventions, small group interventions (where children are taught the skills in a group or team setting), larger sample sizes and follow-up studies with children and parents who have been participants in the program. The more control that children gain over their own behaviors, the better the chances of medication being minimized or eliminated.

Personal Reflections

The following personal reflections represent the feelings of the researcher who delivered

this program to the children. Having extensive experience and training with select populations, and particularly children with behavioral challenges, I was hopeful, but cautious that the use of self-implemented skills could help children with ADHD manage their own behaviors. As this program unfolded, I was astonished that any program could have such a powerful impact in such a limited time-frame. My experience with this study has served to broaden my mind to all the possibilities for treatment of ADHD.

Children, who often feel powerless, can be provided with skills to help them create better lives for themselves. The *PLS* program empowered these three children to assume responsibility for their actions, and provided positive alternatives to negative behavior. Tom started doing better at school, Cal got to play soccer with a team, and Bobby had many successful phone conversations, due to the skills they learned. They were taught to manage their behaviors by learning to relax, focus and control distractions. While all children can benefit from learning these skills, it is, perhaps, the children with behavioral challenges that can benefit the most, as they have the most to gain. The children and the families in this study earnestly integrated the *PLS* program into their lives. Their willingness to attempt something new and to persist with it provided them with a valued tool to facilitate managing ADHD behaviors. Given the positive results that were incurred in this study in such a short time frame, it is stimulating to anticipate the results that could be incurred from a longer-term intervention.

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Success Elements of Elite Performers in High Risk Sport: Big Mountain Free Skiers

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Abstract

Big Mountain (BM) freeskiing is a high-risk, high-speed alternative sport that takes place in an unpredictable mountain environment. The purpose of this study was to gain an understanding of the success elements of elite BM freeskiers to perform their best while immersed in the unique challenges of their sport. Nine of the best BM freeskiers in the world participated in the study. The success elements that emerged from the interviews were categorized into five categories; pre-performance preparation (line selection, visualization, and calmness), performance execution (confidence and focus), and post-performance evaluation (reflection, lessons learned, mindset), love for their sport and what they were doing, and a fully focused connection to that in which they were engaged. A unique aspect of this study was that the participants had the ability to remain calm while facing extremely challenging situations in which severe injury and probable death are the consequence of a less than best performance.

Imagine a helicopter has just dropped you off on a mountain peak. You crouch down on a ledge of snow to protect yourself from the blades of the helicopter, and feel the sting of the swirling snow given life by the powerful machine. Behind you, the mountain drops straight down two thousand feet. In front of you, the snow falls away steeply down a chute over three thousand feet in length. You have never been here, and the only information you have about this area is

from a Polaroid photo of the mountain, and the visual information you gathered from the helicopter ride as it climbed to the peak to drop you off. As you begin putting on your skis, you remember that a fall here would mean almost certain death. Your heart starts racing, and you start breathing faster and harder.

What drives people to put themselves in this position? What are they thinking about or

focusing on just before they start down the mountain? What success elements allow them to perform optimally in this dangerous environment? The purpose of this study was to gain an understanding about the success elements employed by elite Big-Mountain (BM) freeskiers to perform their best while immersed in the sport of BM freeskiing.

The main components that make up a BM freeskiing experience include: creativity, high speed, and big aerial manoeuvres. One of the unique differences of BM freeskiing, compared to the other components of freeskiing, and traditional ski racing (alpine racing, moguls, and aerials) is the freedom each athlete has to create within an extremely difficult and unpredictable environment. BM freeskiing takes place in alpine regions of big mountains, where the terrain for a “normal” run is exposed due to the steepness of the slope, scattered with trees, and littered with cliffs. The athletes who compete in BM freeskiing use personal style and creativity to ski on the dangerous, un-groomed terrain. There are no gates and time is not the deciding factor of winning and losing as with traditional alpine ski racing. The athletes are not restricted to particular features that they must use during their run. For instance, if one athlete jumps off a particular cliff, this does not mean that other participants have to jump off the same cliff. In competition, there is a designated area for the event to take place; one that will be challenging enough for the athletes and one that the judges can see with binoculars. There are five judges who score the athletes’ performance according to: the line they choose (degree of difficulty), aggressiveness, technique, fluidity, and control. Each category is rated out of ten marks for a potential total of fifty marks for each run.

Understanding the success elements that lead to optimal performances in BM

freeskiing may provide insights to those involved in high risk sports as well as other performers, that can help them enjoy their experiences, cope effectively with fear, and focus in ways that will help them perform their best when facing big challenges.

Success Elements

Elite performers from many disciplines, including sport (Orlick & Partington, 1988), medicine (Tribble & Newburg, 1998) space travel (Hadfield & Orlick, 1999), mountaineers (Burke, S., & Orlick, 2003) and the arts (Fageus, 1999; Talbot-Honeck, & Orlick, 1998) have been studied to assess what elements free these exceptional people to perform their best. Most studies on the psychology or mental skills of elite athletes have been conducted with “mainstream” sports. For example, extensive studies have been conducted on athletes from both summer and winter Olympic Games (Orlick & Partington, 1988) and many other mainstream sports.

Orlick (2000) describes in detail seven “keys to success” that have consistently surfaced in the literature in his Wheel of Excellence. Four elements form the outer circle (positive images, mental readiness, distraction control and ongoing learning), and three elements form the inner core of the wheel (commitment, focused connection, and confidence). The Wheel of Excellence is a model that has been supported by many applied studies and extensive consulting experience with elite performers (Orlick, 1980, 1990, 1992, 2000, 2002; Orlick and Partington, 1988; Barbour & Orlick, 1999; Kabush & Orlick, 2000; Burke & Orlick, 2003). In Orlick’s most current work in progress, focus is highlighted as the center of the wheel and the center of excellence.

In-depth interviews were conducted by Orlick with elite World Cup downhill ski

racers to explore the success elements they employed to deal with speed, risk, injury and fear. Many elite BM freeskiers have a rich history in alpine ski racing, making high level alpine ski racers probably most closely related to BM freeskiers. Orlick reported some of these interview findings in four books; *Psyched: Inner Views of Winning* (1986), *In Pursuit of Excellence* (2000), *Psyching for Sport* (1986), and *Embracing Your Potential* (1998). Kerrin Lee Gartner (Olympic downhill champion) stated that the most important mental skills leading to her success as a world class alpine ski racer were imagery, focus, distraction control, learning something from every performance and developing complete confidence in her abilities. Both Kerrin and her teammate, Kate Pace (World downhill champion), spoke of the importance of using quiet time to relax, focus on what they wanted to do, and plan on how they are going to get there. Steve Podborski attributed his eight World Cup wins to a mental step that allowed him to enter a mind-set in which he recognized the fact that he *could* win if he did things right and then focused on doing it.

Burke and Orlick (2003) examined the mental strategies used by elite Mount Everest climbers to successfully reach the summit of the world's highest mountain. Each climber spoke about the severe risk of the activity, and believed that by focusing on appropriate strategies such as; physical training, detailed planning, imagery, developing mental strength, focusing, self-confidence, team support, and short-term goal-setting, they were able to overcome the obstacles they faced while on the mountain.

One of the most informative pieces of literature related to the focus and fear in ski performance was found in a book entitled *Into the Yikes Zone: A Conversation with Fear* (Blakeslee, 2002). In this book the

author explores the relationship between fear and skiers, and more specifically, how fear enters the experiences of skiers, and how the skiers react to that fear. Blakeslee states that;

By regarding fear as a pathology to control or cure, we assume that life without its presence is possible, normal, or even desirable. But once we accept fear as a habitual acquaintance in an imaginative, meaningful life, we can begin to cultivate a conversation with it rather than engage it in a fight. (Blakeslee, 2002, p. xvii)

BM freeskiing by nature challenges participants to draw upon their physical and mental skills to overcome or channel uncertainty and fear. To excel in this high-speed, high-risk context, athletes must employ certain success elements, specific to the individual, which allow them to focus on the right things and to overcome uncertainty and fear.

Methodology

To explore the success elements used by elite BM freeskiers a qualitative research design was used within the post-positivistic paradigm. Denzin and Lincoln (2000) stated that qualitative research design should always have built-in flexibility to allow for discoveries of new and unexpected empirical materials. To avoid imposing thoughts or theories on the participants, the interview questions for this study were presented to the athletes in a semi structured fashion without mentioning any elements of excellence or using those terms in the wording of the question. An interview guide was used to provide a framework of questions asked to each participant to gather similar data.

Nine participants, seven men and two women were interviewed for this study. The athletes were all North American, seven athletes were Canadian and two were from

the United States. Each participant was an elite BM freeskiier. For the purpose of this study, elite was operationally defined as any athlete who had placed in the top five of an International Freeskiing Association (IFSA) event, or an athlete who had contributed to the BM freeskiing world through their efforts by skiing in major films. Only the best BM freeskiiers are asked to perform in the filming industry of the sport. This ensured that these participants were truly world class performers in the realm of BM freeskiing.

The data analysis process began by conducting the interviews (Rubin & Rubin, 1995), listening to the interviews, and transcribing the interviews (Maxwell 1996). The participants were sent a copy of their transcribed interview for member checking. This allowed the participants to read the transcript and provide any feedback or clarification with regards to the text.

Some of the athletes requested to have their names directly linked to their quotes in the final document rather than being identified by numbers or pseudonyms. Upon this request all of the other athletes were contacted and asked if they had concerns with this. All these high performance athletes preferred this option, thus the names of the athletes have been included with their quotes.

Results

The results of this study clearly indicate that these elite performers identified specific performance factors that they felt were essential for successful high level performance and acted on these factors or success elements on a regular basis. The success elements that the athletes identified are presented below and are supported with rich and detailed quotes from the athletes.

For simplicity and clarity of presentation, a decision was made to present the data in

three main temporal categories (pre-performance preparation, performance execution, and post-performance reflection), and within each of these temporal categories to include the specific success elements associated with each category.

Contextual Description of a typical routine on performance day of a BM freeskiier

Many people have a limited understanding of what it is that these athletes actually do. A contextual description of a typical performance day for a BM freeskiier has been included here to provide some basic details about the sport to help you understand what a BM freeskiier has to deal with on a daily basis. It may also help to better understand the relevance of certain elements of success that these athletes discussed in their interviews.

With extensive alpine skiing experience, back country freeskiing experience, a physically trained body, and a desire to test their skills on a BM challenge, the athletes head to the mountain, to begin preparation for a BM freeskiing run or competition. Upon arrival at the mountain the athletes head to the venue to begin selecting and inspecting the line or path they will ski. The line selection/inspection process is an area of BM freeskiing that differs from many sports. The path that athletes choose to ski is completely up to them to decide (with the help of the mountain). There are no gates or specific features that the athletes must include in their runs (there are only general boundaries assigned to each venue due to visibility for the judges). Line selection/inspection is a creative process in which risk management is used as the skiers must be aware of their abilities and match that with a run that is challenging enough to post a good score, while respecting that something overly challenging may lead to a loss of control,

poor score, and quite possibly severe injury or death. The biggest determinant in the line selection/ inspection process is environmental conditions. Where are the rocks and drop-offs? What is the falling distance off the cliff? Is the snow deep? Has there been new snow? Is it cold? Is there wind? Will the run I want to do be tracked out because I start late? A skier could pre-select a line and then show up on the day of the competition and it may be impossible to do. Therefore the athletes must have backup lines in mind in case of altering conditions. As you will see through their quotes, these elite athletes are very good at *asking the mountain where to ski rather than telling it where they are going to ski*.

Upon selecting a general route, the athletes will move in closer to scrutinize their line, looking for potentially dangerous obstacles, both large and small, that they may encounter during the course of their performance. Many times the pitch of the run is steep enough that the athlete can only see about fifty feet of terrain in front of them before it falls away. The inability to see the entire run causes the individuals to inspect the run relentlessly, looking for any landmarks that can help them find their way through the maze of snow and rock. Lining up terrain on their run with landmarks in the distance is a common technique used to be aware of their location. One athlete mentioned that he asks the helicopter pilot to tap the ski of the helicopter on certain areas of the snow to provide visual cues as to where the skier should be and where he should head next. This specific technique is used only during freeskiing filming sessions and not during competitions.

Many athletes mentioned that they choose their lines according to how they feel that day and the environmental conditions. They are also driven by the pleasure of pushing

limits, and they want to do a run that is challenging and fun for them so that they can gain extreme enjoyment from the experience. Some are seeking a run that is possible, but only barely possible if they do everything right. With the line inspected, chosen and inspected again, most of the athletes then visualize themselves skiing the line. They all said that they see the images through their own eyes, trying to picture what they will see when they actually ski the line.

Once these elite skiers have decided on a line, they are confident and committed to the line they have chosen to ski. They then focus on relevant things (or nothing negative) until it is time to ski. One of the main elements they focus on during the waiting time is remaining calm. Calmness is achieved and maintained by using distraction control techniques such as self talk, positive thoughts, and breathing techniques. Most of the athletes talked about allowing themselves to raise their state of arousal at the right time. If they got pumped up too early they would make themselves nervous, and if they were too late they would not be in an alert enough state to do well right from the start.

Due to the intense emotional experience and the possibility of facing death or the fear of death, many of the athletes talked about taking a moment after each run to think about what they had just done and put some feeling of closure on the experience. This process of reflection opens their mind to draw lessons from the experience and further develop their mind-set.

Success Elements - The specific success elements used by the world's best BM freeskiers are presented in the following text.

There were two success elements discussed by all athletes that seemed to transcend temporal categories. They were more holistic and all encompassing concepts that expanded beyond time, and were more related to a way of being or experiencing. These larger or more encompassing success elements were directly related to what the participants loved about their sport (and life), and the extent to which they carried a focused connection into their various pursuits. A decision was made to present these two powerful success elements first due to their importance and pervasiveness.

The Love of Doing and Being

Each participant interviewed in this study, spoke of the love they had for elements of their sport and their life. The love elements mentioned by the participants included; the challenge/achievement in their sport, skiing in powder snow, and being a part of the powerful elements of nature. They also mentioned loving the sense of control, the intense emotions, and the feeling of being totally in the moment.

It was clear throughout the interviews that the love for what these athletes do was one of the key elements to pursuing, persisting, and succeeding in such a high-risk sport. Mikey Stevenson said, “It is very much a sport that just like other ones, you have to develop a love first.”

I think you have to love it very much. That is how you are going to do well. It is like anything, if you love your job you will be good at it. The best guys in skiing they're the guys who love it the most. They are always there and they are stoked to be there.
(Hugo Harrison)

It was all about the joy of the sport for sure, for me it was a huge portion

of my success. And other things I mean like working hard and stuff. But once you lose the love of something or you are just depressed you can't perform....It is the pleasure of the sport that has totally taken over the little issues. I do have a passion for it, I do think that it is really fun, and it is one of the purest, coolest kind of feelings that you can do.
(Wendy Fisher)

Like kids...you have to have a passion for it, you have to love it. Otherwise what are you doing it for? You don't want to do it because other people are doing it, or because it is the cool thing to do. So have the love for it and then be ready to work hard for it. (Mark Abma)

Every single participant said that they love the challenge of BM freeskiing. In a very real way, due to the extremely dangerous environment in which these athletes perform, the ultimate challenge of BM freeskiing (aside from the challenge of performing better than the other competitors) is surviving the ski down the mountain. These athletes perform in an extremely dangerous environment. Facing the danger (and even embracing it), meeting the challenge head-on and emerging alive, is one aspect of the sport that these athletes love. One of the reasons they perform so well at the elite level in this sport is because they love doing it and finding a way to get themselves through the tough challenges. Jonny Law talked about his love of the challenge in this sport in the following way:

When I am going skiing, when I am in the gondola, and there has been some snow, or even when there hasn't, almost everyday I almost feel sick going up the mountain. It is al-

most vexing really because you are doing something and you want to do it, you are excited to do it, but you are scared and sick about it.

It leaves once I get on snow almost immediately. I think it is the challenge I find it to be enlightening, when you are on top of something and you know it is a bad idea. You are kind of fighting common sense. Because your common sense tells you no, just ski around have some fun. But you have to fight that, and I think that is what is exciting because when you can finally decide that 'I am doing it' and then you actually do it. That is what I think it is all about, that split second where you're mentally strong enough. Maybe it is, that you are ignoring common sense and doing what you want to do, what you think you can do. There is a quote by T.S. Elliot that I like, it goes "only he that will risk going too far, can possibly find out how far one can go." I think about that a lot. It is never going to be comfortable to try to excel at something. (Jonny Law)

In the preceding quote, Jonny discusses the inner battle that is going on between his common sense which is telling him to avoid the danger of the cliff, and some other voice that is telling him to launch his body off the cliff into space, and uncertainty. For most people this mental battle would not exist, they would simply not launch themselves off of a fifty foot cliff. There must be some strong motivating factor to leave one's comfort zone and direct oneself through this kind of uncertainty. The answer may lie in another element of BM freeskiing that the participants say they love, and that is the emotional reward they feel upon successfully completing something that they

thought was challenging or barely humanly possible.

I get these rushes of self fulfillment over doing something that some people might find crazy. And it is not self fulfillment, like I am the man, I totally stomped that! It is more like I brought myself to do this, and I was able to control the situation. It is a feeling that I can't really describe. (Jonny Law)

Let's say that you do something where fear comes in, like 'oh I could fall here or fall there' but if I ski here around this and around there and it goes perfect and I am out, you are like 'wow'. It is such a big feeling you get of achievement. And even if there are all those elements of death, and even though there is all that risk, it is a big achievement. By achieving something like that and defeating all the risk, it is a big achievement and a big challenge and you get really proud. (Pierre-Yves Leblanc)

There is no doubt that BM freeskiing is a sensation packed sport that generates intense feelings and emotions. Once these skiers had experienced free skiing in dry powder snow, their pursuit was to relive those feelings as much as possible. They describe a "perfect" powder day as an amazing combination of opportunity, skill, dedication, and coincidence. Each participant mentioned the powerful effect that skiing in champagne powder had on them.

If tomorrow is going to be sunny and stable (and there is pure powder snow), I can't sleep because I know it is going to be like that, even though I have a broken leg. You

know it is the green light, even if I can't take it, I know it is on. JC: And how does that make you feel? PY: It is like you are going to meet a girl that you have been talking on the phone for a month and you are going to see her the next day. You know you have butterflies and you can't stop thinking about it. And (for powder skiing) you are trying to get everything ready and you watch the videos and you get the visualization and you watch the good skiers or whatever the trick you want to do. That is how I am. I can't sleep I wake up. I am usually up at four. (Pierre Yves Leblanc)

Just the feel of it, it is just buttery smooth and you can go so fast and it is almost like peaceful at the same time. JC: What do you mean by peaceful? MS: Because it is a quiet thing. You are going over the snow at a hundred miles an hour, and there is no engine, no nothing, you are in your own body, and that's it. It is a pretty crazy sensation, like slopes you can rip down super smooth without feeling anything under your feet. Yeah so that's what gets me about it really. You can be going full speed and be using very little energy. The nicer the snow is and the smoother it gets, the less energy you use doing it. (Mikey Stevenson)

I think once you find that moment when it all just flows on it's own, that's when you have found that point. It is basically just in powder you know, fucking hell man this stuff is just money! What else comes close to that? Skiing through, floating through, like water isn't even the

same because it is so much harder. It is floating, pretty much. You are just at the will of gravity, then it is just pulling you down. And I am trying to work with gravity. You don't want to be fighting with it in that aspect. Making it look smooth and working with gravity, not going right down the fall line, you are using the whole mountain to control your speed you know? (Mark Abma)

The love these athletes have for powder snow is directly linked to another major area of love in their life which is the connection with nature and the powerful elements that make up the playing field in which these athletes perform. The love of being in this natural setting is a powerful motivator for the athletes and they prepare as well as they can to ensure they can perform at their best in these extreme environments. Pierre Yves Leblanc discussed the connection he created with the mountains as follows:

I love it. I just fell in love with the elements, the landscape, the strength of all that stuff...I felt really good in the mountains. I felt that I had a super good relationship with the mountains and I was talking to them and then really know when it was time to go and when it was time not to go. And I would say where do we ski today? Where is the snow? Where is there not snow? And then we choose our path. Everywhere else the mountain was telling me not to go there, and that takes a lot of years but I was so into it that I got this relationship with the mountain. (Pierre Yves Leblanc)

It is almost like it is spiritual, how you and the mountain come together like that. JC: Why would you say that

it is spiritual? MA: I just wouldn't know how else to put that kind of connection. Just like when you are in a place where there is that much power, but at the same time it gives out so much love. It is pretty cool. (Marc Abma)

I just love being in the mountains. That is something that I always like. Sometimes when I am on top of a really big line I feel small. That's the cool thing of it. It is a totally different sport but you have to have the same feelings because you are out there in the elements. (Hugo Harrison)

When asked if anything else in his life gave him the same feelings that he gets from BM skiing, Pierre Yves Leblanc responded:

No, no, nothing. The number of elements you are dealing with. I am also such a beginner at everything else. I cannot get close to the feeling that I get BM skiing. Lets say I go biking... the earth is not moving. It doesn't matter if it is raining or sunny, there are no pow days, there are no avalanche cycles, no winds (like up on mountains) nothing like that. It is pretty consistent compared to skiing. Skiing is very inconsistent, you can get the worst days, the most dangerous days where you can kill you self going off of a little side air. And then you go another day and it is dry snow very stable and sunny. You get both extremes, one day you hate it, it is the last place on earth you want to be and then the next day is heaven. This is different compared to other sports where it is consistent, pretty good every day but never amazing and never super bad. Some

days you feel like you are in paradise, like no one can experience what you are living. But the other days sometimes it is really bad, it is really shitty, it is foggy, the snow is really bad, it is hard travel, impossible to ski, impossible to see, and avalanches and you don't know where you are going. That's why you have to wait for that special moment, and it comes two or three times a year. Those moments are very, very, special and you can't just go get it tomorrow. It has to be perfect timing or coincidence. You have to deal with the different elements of nature and the weather systems. Then there are those moments when 'boom the green light is on'. That is hard to beat. For us you are just a tiny part, you are probably thirty percent of what is happening. The biggest percentage is nature, she's the one deciding what is going on. You have to be a good skier to be at the level we are, but to experience that thing you don't need to be the best. You need to be smart and to communicate with the nature and the mountains to know when the green light is there. Otherwise it will take you out, because it is so powerful. So that is why it is it takes years to know that tomorrow is the day. (Pierre-Yves Leblanc)

Pre-Performance Preparation

Their pre-performance preparation phase was described as being an extremely important factor in having successful runs in BM freeskiing. Success elements in the pre-performance preparation phase included; drawing upon past experience, physical readiness, careful line selection/ inspection, and clear visualization. Using these success elements raised the level of confidence the

athletes had in their ability to perform successfully. It was very important for the athletes to then trust their preparation and remain calm.

Drawing Upon Past Experience

One of the most positive contributions of experience (with skiing since an early age, ski racing and skiing within this context) was that athletes could increase their confidence and comfort level with an unfamiliar situation by drawing parallels from memories accumulated from past experiences. This helped the athletes make good decisions before committing to a choice or to make quick adjustments while immersed in what they are doing.

All of the participants started alpine ski racing at a young age (average of six years old) and started skiing at an even younger age (average of three years old). The early introduction to skiing and the desire to progress was one part of the path to gaining important experience.

I have been skiing since I was three so I'm comfortable in certain environments that most people aren't. I have raced (in alpine skiing) and I have constantly kept it up and I love it and I get so stoked on skiing that I want to do more and more and more. I am basically addicted. So when you ski so much you are going to progress to a certain level and you are going to be comfortable in certain situations, where other people aren't because they are not exposed to it as much. (Jenn Ashton)

All the athletes stated that their experience in racing helped them build fundamental technical skills, and mental skills such as focusing and imagery, that is required to be a successful competitive skier. This base of

knowledge was expanded to allow these athletes to focus on other more advanced areas of their sport. For example, one athlete discussed his ability to “feel” the conditions of the snow, to know whether or not there is going to be an avalanche.

I am not (formally) educated in snow pack or all that stuff, but I can be skiing something and just by the feel of it and by the terrain and know that it is going to crack and when it is going to break, and I can pretty much pinpoint when with my weight when I am going to make it happen. (Jonny Law)

With very solid physical and mental skills, and a vast memory bank of good and bad experiences, these athletes stressed the importance of continuing to learn from each experience, and to put themselves in unfavourable situations or challenging conditions in order to build more memories that will help them in future experiences.

I think you get good at big mountain freeskiing through trial and error and as you experience more things like big crashes and big cliffs, you are able to apply that to what you are doing [italics added]. A lot of things you end up doing, you have probably done something like it before. You just kind of process all of that, really thinking it over, so a lot of it is subconscious, it is almost instinctually. Like no problem, it just comes together. (Jonny Law)

That's why you have to ski everyday so that you are used to skiing in every type of storm. So you start to feel. (Hugo Harrison)

Physical Preparation

There is no doubt that to be able to survive cliff drops of one hundred feet in height, or to ski thousands of vertical feet in seconds one must train physically to be strong enough to face those physical demands. Physical preparation as mentioned by the athletes included; physical training to build muscular strength and cardiovascular fitness, a nutrition routine that provides the body with enough energy to perform in their demanding environment, and getting adequate rest.

There are many benefits that come with being physically prepared to engage in a demanding sport, such as injury prevention, and having a clear mind heading into competition. One of the biggest benefits of being physically prepared mentioned by BM freeskiers was that it enhanced their confidence in their ability to ski well. Jonny Law said, “By being in the best shape I can be, being well prepared, you know on top of something, ‘I have done everything I can to be able to do this’.”

For this athlete, time spent engaged in physical preparation also provided an opportunity to work on focus and mental preparation.

I worked on my focus and I think working out (physically) was a big part of that. Because like running I find it to be seriously meditation with the breathing and you do a lot of thinking, and I would think about skiing lines and faces and stuff. (Jonny Law)

Wendy Fisher talks about the importance of physical preparation;

Anyone who has the desire to be an elite athlete knows that physical

training goes hand in hand with that. I don't think any elite athlete made it to where they did without training. I don't think anyone would say, oh yeah I have never worked out a day in my life. Just because I am a skier, you know I don't ski myself into shape. Everyone who says, oh I am going to ski myself into shape, no way, you can't learn to take airs, you can't learn to ski really technical lines, and keep the leg strength all the way from top to bottom if you are not physically fit.

MA: And then take care of yourself. JC: In what sense? MA: Ah well lets say you do have a bit of an injury coming on take care of it don't just ignore it trying to be tough guy Tuesday, and ah if you feel like your body needs rest listen to it. Like I was feeling it a week ago I was like I am done, I finished my coaching job and I was out. And then I got the phone call and I was like alright I will do one last shoot and then sure enough I wound up getting hurt so maybe the next summer I will listen to my body a little more carefully. (Mark Abma)

Line selection/inspection

The line selection/inspection phase is of utmost importance to be successful as a BM freeskier. The importance of good line selection and inspection is immense considering that within those few minutes the athletes' life can be ended by not making a good choice.

The following quote demonstrates the negative effects of not having a line selected, or not being able to fully inspect the line and be confident with what you are about to do.

In filming, it is a big thing (line selection), actually it is huge because sometimes I will go up and I will be like, I kind of like that line or I kind of like that line. “Are you ready Wendy” (from the film crew)? And I go up and I don’t really have my line totally picked out. And I am a wreck when I am not one hundred percent sure of where I am going and if I don’t have a Polaroid with me (a Polaroid picture of what is beyond the drop or ledge), it could be the most basic run and if I don’t have a Polaroid I am a wreck. Because you get up to one of those peaks and you can’t see anything but the valley floor. And so I always feel that even though there might not be one obstacle on that run, I just feel, ‘ooh I might be faked out or something’. I just have to have that Polaroid to know you have your out if it is going to slide, what is the best way to go, if the face (of the mountain) is going to go, which way am I going to go. And you can’t see that anymore. But then when I am kind of wishy washy between two different lines or not a hundred percent, I am a complete wreck. I still go but it is probably going to suck. I mean they probably won’t even use it in the film. You can see it in me (the way she skies) if I am not one hundred percent. (Wendy Fisher)

It is common for people who look at this sport from the outside to say that participants in high-risk alternative sports such as BM freeskiing are reckless and have a death wish. They may think that these athletes are people who don’t care and don’t think about what they are doing. They just “go for it”. This outside perception is certainly not supported by these elite BM freeskiers. The ex-

ternal conditions that exist on performance day are the most influential component when selecting a line to ski and they choose that line with great care. The external conditions are studied in detail so that the athletes are aware as possible of what exists on that day. The external reality of the mountain is then compared with the athletes’ internal feelings about the level of risk they are willing to take that day, in order to find a balance between the two. Each athlete asks himself or herself; what does the mountain have to offer today? And what do I have to offer today? The goal is not to kill yourself. It is to complete the challenging run successfully. If the risk is deemed too high, the athlete will usually back off and wait for another day. Hugo Harrison said, “Sometimes it’s filled in enough to do it (the line has enough snow to make it), sometimes it is not. So each line has its moment.” And Jonny Law said, “I have a career to think about now too. So it (how much risk you are willing to take) changes as you grow, like maybe you love a girl. Things change and that is going to influence how you add up the risk.”

That’s why you choose your line by how you feel. You have to back off sometimes. The best way, is to respect the mountains. If you assume the risk of going out there, you are assuming the risk of avalanches, and they are set off by you or others. That’s the worst part about the skiing we do, you have to be conservative sometimes, go with the flow of the snow, more or less. (Seth Morrison)

No, no, no, there is no way. You have to think about the bigger picture. There is a time and a place for everything. You just have to know when it is. I mean

you can jump the biggest cliff you want as long as there is enough transition. You can do a two-hundred footer if you want. But dropping a ten footer to uphill is stupid. (Ryan Oakden)

A couple of athletes shared their experience of selecting a challenge without adequate preparation. They both got away with their health however they were not happy with their decisions. Defying death by luck is not what they are seeking to do.

JL: I have made some massive mistakes like there are some things that I don't even want to admit to. JC: Like what? JL: Well I will tell you one. This one line in Kirkwood in the final at the top, massive cliff band a huge amount of exposure and I'd planned on doing something that I don't even think is doable. And as I am skiing towards it I realized that I had no idea where I am. Don't know where I am at all. And somehow I lost complete control over like any sort of thought process and I just picked a point and went for it. And I am embarrassed by it, because it is the most reckless thing I had ever done. (Jonny Law)

If you do something and it didn't work out how you planned and you still get away with it, I don't get a buzz out of that I get the chills, like holy maybe I should sit down for a little bit and think about it for a while. And I came close a couple of times and I always got the chills, sitting here now I am getting the chills. And it was like being close to death and you know you want to be close to death but know that she can't do anything to you. Dancing with it, you

are and that's how you are comfortable with death because you know she can't do anything to you. (Pierre-Yves Leblanc)

Wendy Fisher talked about being afraid, and what it does to her in terms of preparation.

There are times when I am like oh my God I am going to puke right now or shit my pants because I do not want to go down this....Once the heli (helicopter) leaves you are shaking for sure. You know if it is a nerve wracking run and it (the helicopter) is going away and you are like oh fuck, especially if you are alone. It is like oh my gosh I am up here all alone and everyone else is on some other peak. That is really cool and scary at the same time. It is cool because you are, wow, I am over here alone about to ski this peak and it is all me and you feel alone.... Being scared is not a bad thing. It definitely makes me look for my line now and where my safe zones are.

Once athletes come to an agreement with the mountain on where they can ski, they then look to the risks that exist in the line. This is done during the initial inspection phase. This is where risk management comes into play. A debate ensues between risks and pleasure. If the risks outweigh the potential pleasure then they will not choose the line, and if the pleasure is greater than the risk, then they will proceed to inspect the line. The athletes point out that it is a tough debate sometimes. Thoughts of the intense joy from previous challenging runs may flood their mind. It takes self control, self-awareness, and perspective to choose a line that is challenging enough to be intense and joyful (keep in mind the challenge was one aspect that all the athletes love) but not beyond

their skill level or that of any athlete. Pierre-Yves Leblanc said, “For me it’s like finding a mountain that is appealing to you and finding the line that you have to ski. And it is all a mental discovery, and calculation of where can we ski on this mountain.” And Ryan Oakden said, “I want to find something that will challenge me without killing me. It is a fine line.”

Just look at the consequences, people call it calculated risk management. You know there is risk and you are calculating it. There is probably a mathematic, like you are figuring out this plus that and the weight of one thing compared to another. You just calculate that risk, there is always going to be some level of it and if it is too high then it is not worth it. (Jonny Law)

I wanted to ski the line because of the joy I would feel from it, but the risks out weighed the joy. So I didn’t ski it. I picked a line that was hard enough for me to enjoy. But you don’t want to do something above your head. (Jenn Ashton)

MS: I am scared a lot but usually I can get passed it. You just have to decide what is being scared and what is being sensible or not sensible. JC: Or reckless?

MS: Yeah! Yeah! That is one thing that more and more I have had a hard time coming to grips with. I’ll feel nervous and I am like, why am I feeling nervous? Should I do it? You know is it one of those times like when you were a kid where you might be scared to jump off of a high diving board, but you are going to be fine. You are just scared; you have to

go passed it or recognize if I am scared because this is something totally stupid. (Mikey Stevenson)

Once the athletes have chosen a line, the next step is to inspect it thoroughly. Thorough line inspection increases the awareness they have with regards to the potential obstacles that exist in a line, as well as the “safe zones” or areas that might provide an “escape” route if something goes wrong or if it simply doesn’t feel right.

That’s what it comes down to with this focus and this visualization, you need to trust your inspection and trust yourself. You need to know that you inspected well, otherwise how you are going to be confident up top and ski well and feel good about it. You are going to be worried and because you are worried you are not going to be skiing strong. So it all comes down to inspection, inspection is most important. (Jonny Law)

At times the athletes are fortunate enough to use a helicopter to inspect the line they wish to ski, however for the most part, inspection takes place at the bottom of the mountain. This poses a problem while picking directional landmarks during the inspection process. The athletes could select a rock while looking up at the mountain, however when the visual perspective switches and they are at the top of the mountain looking down, the rock could be covered with snow and confuse them potentially misleading them. Experienced athletes use visualization in an attempt to switch their perspective and see what the line might look like from above.

It can be bigger or you just miscalculated and you go to the wrong place. You know that bump of snow that you were looking at it from the

bottom, you know that rock. But then you didn't see that upper bump of snow and so you arc around the first one and you are supposed to arc around the second one. Instead of going over a sixty footer you are going over a hundred footer (100 foot drop). Things like that are not because of the ego, it is because of the preparation...I am thinking about where is the snow, and how big is this really, because when you are looking from a kilometre away and then you have to anticipate or predict all those things, it is not like other sports where it is there and you can go touch it. If you want to go practice like ski jumping they want to make the same exact ski jump so wherever they go it is the same thing. But for us wherever we go it is a whole different thing. You have never tried it before, and it is a big mental challenge trying to figure out what it is going to do and how big you are going to go and what is the inclination of this, and where is the good snow and looking from the bottom, and then when you get to the top you are blind. You have no idea where you are. But that is why it is so cool. It is a big mental game of trying to calculate everything. You are looking for a big buzz. You see things from down there but now you see completely different things from above. So you have to figure out what you were seeing from the bottom because it has this shape and then ok everything looks different so I have to go this way around this one and then this way around that one, and then it is going to be around twenty or fifty feet. Ok I've got this snow here and this snow there and that snow might be a little crusty be-

cause of the wind. It is a big like mental game. And kind of like anticipate and calculate, and then you drop in and then all of a sudden it switches. (Pierre-Yves Leblanc)

Athletes indicated that there are a number of ways in which inspection takes place. As indicated by the athletes, the use of a helicopter is the best method of conducting effective inspection of a line. These vehicles can be flown a few meters above the line the athletes will ski, providing a sensation and visual opportunity to experience the line from the air.

Sometimes with the helicopter I go up and say, this is what I want to ski, so the helicopter goes like ten meters away from the snow and I go down my line. So if I am going to turn there and off this cliff, then I will go exactly there with the helicopter, and then I go up and ski it...Then at the same time if I am up there and I get the helicopter to fly to a cliff and make some marks, so when I come to the cliff I see the mark and I know that that is where I want to come off. And I know exactly this is where I want to be. I have no idea where I am going, there is a huge roll, and I have no idea where I am, there are no features, but there is a mark in the snow, and so I trust that mark and I go that way and then I hit my air and I land in between my two rocks. (Pierre-Yves Leblanc)

On the other end of the spectrum, the worst way of inspecting a line is with no inspection at all. Mikey Stevenson explains his mentality towards being led blind off of something. You can tell that he is hesitant in trusting just anyone and would prefer to see it himself.

By the right person I could be led blind off a cliff. JC: Really? MS: The right person who knows my skiing, and who knows skiing (in general) that well. There could be some guy who could be the best skier in the world but I might not trust him to do that. A good buddy that I skied with a lot (I would), a guy like Hugo I would trust that guy, if he told me exactly (where to go), he just knows so much (about skiing), it is a science for him. I would trust him for sure. And I have before. (Mikey Stevenson)

It was not uncommon for athletes to line up a landmark such as a tree, or a rock that is on their line, with an object in the distance such as a mountain top on the horizon. This technique was said to be very valuable for providing directional information while immersed in the line. The importance of good inspection was discussed at great length by the athletes. The following quote shows what one athlete did when he could not thoroughly inspect from up close and illustrates how he selected an appropriate line and inspected it enough to be confident with his line decision.

We were told that we couldn't inspect (by walking around features and checking the depth of snow in certain landing areas). We had to inspect from afar with binoculars. The tram (device to transport skiers to the top of the mountain) kind of went up on top like lookers left (left hand side if you were looking at the mountain from below) so you could kind of see stuff. But it was still a long distance and who knows with depth perception and the host country competitors had all skied it of course. JC: Do you think that is part

of why they did it? JL: It is hard to say but I am really glad they did. I think it really separates the weak from the strong and the good from the great. And it was intense. JC: So what did you do? JL: Inspection how did I do it? I did it with binoculars, straight up with binoculars. And actually I took a picture of a picture with a digital camera, I was able to zoom in on stuff. But still it wasn't able to give you specific details of the line, like what if there was shrapnel on the take off and stuff like that. I pretty much came up with a game plan. Like my last cliff, it was probably a good forty, forty-five footer, but it was like a big band with rocks outcropping rocks on either side. And if I didn't have that angle right I would have landed on rocks which would have been really bad. So what I was able to do, because the face (of the mountain) was fall line (same angle) with a cat track (an easy path on the mountain created by an employee of the resort by using a snow machine). I was able to sit on the cat track with the cliff I wanted to hit and my landing lined up, I turned around, looked past myself to find a landmark that would work with that take off. So I used the same technique as I would have if I was on top of it, but from below. (Jonny Law) (This turned out to be one of Jonny Law's best runs ever, refer to Jonny's interview transcript also in this edition of the journal of excellence for a detailed account of this event)

A key success element athletes mentioned when choosing and inspecting a line is to remain humble. As soon as athletes' ego rises too high, they risk making poor deci-

sions by choosing a line that they are not capable of skiing. The mountains are far too powerful to be egotistical; they can flick you off in a second.

I look at the mountain and I am saying I am going to do one turn there and one turn there, I am going to hit this cliff here and land there, one turn there and then I am going to straight-line to the bottom. The ego comes in and says I am going to hit the bigger part of the cliff instead of the smaller, and then coming in the first turn and then the second turn you planned. And then coming towards the cliff and you are like 'oh fuck why did I choose this'. That's when your ego comes into play. You make your plan, you can plan something that your body can't handle if your ego or mind is too strong....Yeah so being humble and being smart and being really aware of everything around you is very important. The second you are not watching you can get in trouble, let's say you know you are getting excited over something, you forget a couple elements, don't calculate a couple things like what is the sluff going to do here or there, or there is a little rock under the snow that you didn't see. You just look at it quick and you forget to calculate something that is so dangerous, that is the same as not being humble. (Pierre-Yves Leblanc)

These elite athletes possess an immense awareness of both their external and internal environments. This is illustrated through the pre-performance preparation that helped them survive being caught in one of the most dangerous events in the mountains-the avalanche.

While inspecting from above I looked at my line and I said well if I get caught in it I've got to make sure that I go right because there are no rocks below there and it will be fine. And if I do get caught going left then there are rocks there and that could be bad. So I had this plan that I already knew that I was possibly going to be taken out. My chances (of being taken out) are high but there are no rocks so my chances are high again to be ok. And that was my mentality, and I was going to go for it. (Wendy Fisher)

It was the same sort of (avalanche) situation where I am skiing down, I knew it was going to crack on the same face. One guy went crack, another guy went crack, and now it is my turn. You know it was ok, you take things into account. You think ok, it is new snow, it is light. This is the type of things you think about. Sure we are in some unstable conditions but as a professional you can deal with it. It is light enough that it is not really, really going to get you down or break your bones while you are in it.... You keep in mind that there is a crew around watching, it is not like you are alone in the back-country. You know you are going to be saved if you get buried, and you know you are not working in an area that all funnels into crevasses. So you keep all this positive stuff in mind, like sure it is going to avalanche and you might fall on rocks, you might get buried. But there are a lot of positive things you can think of. It is like a scale, like don't get me wrong I turn away from stuff a lot. I say out loud to myself, it is not worth it. I will say it out loud and turn

around and get out of that. (Jonny Law)

I have had runs where there have been avalanches to ski off of and then take a drop to get out of the way at straight line speed to save your life. Knowing where you are going is really all I need to know. (Seth Morrison)

Visualization

With a line picked and inspected, all these athletes talked about visualizing how they would like to ski the line. With regard to the importance of visualization, one athlete simply stated; “If you can see it in your head then you can do it” (Jenn Ashton). One of the important aspects of being able to visualize effectively (and thus a reason why they practice it so often) was that it provided the athletes an opportunity to get a turn count (the amount of turns they will make throughout the run) and an idea of what their run would feel like. Keep in mind that the majority of the time the athletes ski a difficult line, and each time they do it on that mountain in those conditions it is for the first time. There is no means of practicing the line you are going to run before you actually do it, other than through visualization.

It really comes down to visualization, once you pick your line. I go through it in my head before-hand, doing the visualization. Visualizing the run...I would walk away for a little while and visualize my runs for a bit... through my own eyes. I can see my ski tips and I can almost time my airs in my mind, I can know how long I will be in the air. A lot of the times it will come down to inspection, you need to be able to trust your inspection. JC: And so how do you inspect well? Is that something you have

learned? JL: I think so, I think ski racing helped like skiing through every gate and do the hand movement through the gate.

JC: Do you still to that? JL: Yeah you will see me up there doing like prere, siddi, poo (skiing sounds), like you will even hear sound effects. You just take your time, you line stuff up. If I was to just focus on the cliff drops that wouldn't be enough, you have to almost imagine how many turns are going to be in-between each cliff drop and what you concentrate on certain landmarks. (Jonny Law)

You are not even close to where it is, you are in bed or something and you are starting to get super nervous. My brother raced, he is older than me, we used to watch world cup races and mimic what they were doing. So looking back I was probably visualizing when I was really small... I had visualized it so much, (executing a specific cliff drop) for like two years I visualized it and I was nervous real nervous as I was visualizing it. And then the night before and I wasn't getting nervous any more. And it was a weird kind of feeling. (Jenn Ashton)

Some athletes mentioned that after they have selected and inspected a line, and visualized how they want to ski, they simply commit to the line one hundred percent.

Confidence

Confidence is a powerful and interesting success element. For these athletes, their level of confidence appears to be an indicator of how prepared they are. If they have prepared fully and effectively, they will be

confident (almost always). If they are lacking confidence, than often they must go back to the preparation phase and make some refinements or changes. Having confidence in their equipment is also very important because they do not want to be worried about their skis while performing in a dangerous environment. If there is a problem with their equipment, they must assess their equipment, decide what is not quite right and make adjustments so that they can trust it.

One athlete spoke about raising her confidence level by skiing areas of the mountain that she knows she can ski easily to enjoy the movement and get back to her flow. Another athlete talked about focusing on where she is going and where her safe zones are to raise her confidence. Many of these athletes said that knowing where they were going down the mountain raised the level of their confidence far more than thinking about how good a skier they are. Focusing on a good line is what will actually get them down the hill safely.

In a no fall zone (if you fall in these zones the consequences are extreme) your confidence goes down because of that, but you have to convince yourself to bring it up because you are fighting it in your head. It is a hundred percent manoeuvre. It is the mental strength that carries you until your confidence is at a certain level. I don't think you are going to ski at a level to perform there. So if I am not able to get my level of confidence there that's when I say it is not worth it. (Jonny Law)

It is a confidence thing. If I know that I can rule that line then I am going to rule that line. But if I am like, oh man I don't know if I can do this, then you are going to get a little

nervous. But if you know that, oh I can't wait to do this, it is going to be so fun [italics added]. And you are going to rule it, and I wouldn't be nervous, I would just be like, ah is it my turn yet? (Jenn Ashton)

Something does go wrong when I am not one hundred percent confident on something. I am hesitant or cautious or I bobble. And then when I go up there, even if I am scared, if I know one hundred percent where I am going, or think I know where I am going, then I am good to go. Even though I am scared, that definitely makes a huge difference in feeling that you are one-hundred, like you are dialled. Or you think you are dialled. That definitely makes a huge difference. (Wendy Fisher)

Hugo Harrison showed immense confidence in his ability to prepare effectively for the lines he chooses to ski. “For me it is almost impossible [to get hurt or to die] because I am so good about it (preparing), I can guarantee that I will do it.”

Trust

The challenge inherent in BM freeskiing is one of the elements the participants love the most. They enjoy pushing themselves out of their comfort zone to overcome obstacles and innovating along the way. When they step out of their comfort zone, the level of uncertainty increases, sometimes to the point that it is impossible to be 100% confident in their ability to be successful. At this point, the athletes discussed the importance of trust. Being able to trust their preparation, trust in knowing the line where they are going, trust what they are going to do, and trust their abilities (and experience) to be successful. Mikey Stevenson said, “You have got to get to the point where you are going to trust

yourself...If you can't trust yourself in that kind of forum then you can't be there."

When you are sure about what you saw (in inspection), you can trust yourself a lot on the top, trust in how you can do it. Because if you don't trust yourself, then you will be hesitating and that's when you crash. So it is a lot of believing in yourself and the line you selected. (Hugo Harrison)

Remain Calm

In the final minutes of the pre-performance preparation phase, the athletes have done virtually everything they can do to ensure their readiness to execute their performance. Just before pushing off the cliff or down the mountain, the final readiness focus prior to starting the execution phase is for the athletes to get them self in a state of arousal that will match the task at hand. For these elite BM freeskiers, it is essential to enter a state of calmness.

There is so much mental and physical tension when preparing for a BM freeskiing performance, and the consequences of failure are so high (death) that it is quite easy to become too stressed or focus on the wrong things at the top. The importance of remaining calm before their run was mentioned by every athlete and felt to be essential for a successful experience.

JL: I'll be on the gondola with some guys and I'll be quiet just focusing on my breathing, trying to calm down, I take it very seriously, it is by no means a leisure sport, even if it is a day that I am skiing with friends. You have to be able to stay really calm even though what you are doing is very important. So you need to break it down and try not to worry

about anybody else. JC: How do you do that? Stay calm and not worry about anybody else? JL: I just try to separate myself from the situation. Like I am not there to try to meet people, I am there to ski my best. Actually the year that I was best, I don't think I watched anybody else, so it was a total separation. I would hear this and that but I wouldn't think about it. Ah buddy did this, buddy did that, I wouldn't allow it to get in. I would hear it and then just keep concentrating on what I wanted to do. I would just get away from all the excitement for a bit. And a lot of times if someone else isn't as calm as you, and they are getting all pumped, that can influence you. It can happen while you are waiting. You have to be strong enough to stay with your plan of action. I think it is good to pull away, do your own thing, just don't get influenced by the energy that is out there. So I never buddy up with anyone up there. (Jonny Law)

Most of the comps that I have done really well I have been super calm. And I think it freaks some of the other competitors out, like the other girls, they can see it. Other girls have told me that they can see when I am going to do well. When I win a comp I usually have that feeling that I am going to win the comp. (Jenn Ashton)

One of the benefits of remaining calm is that it helps prevent over thinking the run, where one can think about certain aspects of what they are going to do to the point that it starts to decrease their level of confidence in themselves. If the athletes can maintain their composure and level of calmness, they can then trust their preparation

and free themselves to do what they are capable of doing.

I just relaxed and the three people had gone and they were like ok Johnny are you ready? And at that point I allow myself to start to get psyched up, not like aggressive or anything like that. I just allow myself to become ready, to do what I want to do... The snow conditions are going to change but if you allow the build-up process to begin too early you might end up getting too anxious before your run, maybe thinking about things that could go wrong. (Jonny Law)

I just try to be as calm as possible. I try to think about it in the right ways, that it is not going to drive you crazy and at the same time you will be able to remember where you are going to go. (Ryan Oakden)

Sometimes if I am up there (at the top of the mountain) too long I just throw my head way out. Because you can't over think the shit, like what happens here or what happens if I do this. You just have to have your goal and know where to go. (Mark Abma)

One athlete raised an interesting concept about the difference between being in an ideal state of calm-confident and a not so ideal state of calm-nervous. He found that sometimes when he calmed himself and realized that he wasn't confident in his preparation, he felt weak. To overcome this weakness he then pumped up his state of activation to feel strong again.

This year I tried to calm down a bit. But sometimes if I am calm but nervous I just feel weak. It's a bad nerv-

ousness, so if I am feeling that I always try to turn that around to be like an amped up nervousness. I can do that to myself. So I am kind of on either side of the coin. It sounds weird but whatever feeling I just have to go with it or work with it. (Mikey Stevenson)

The time that the athletes arrived at the competition venue was a key element in remaining calm before a competition. All but one participant mentioned that they felt calmer when they arrived early at the competition venue with enough time (as determined by themselves) to prepare. The one outlier participant shared examples of competitions where he actually missed his start time, but was allowed to ski immediately to fill the void. This immediate start time prevented him from over thinking his run at the top. An important thing to note is that in each of those situations the athlete had completed his pre-performance preparation and trusted what his was going to do. He was aware that all he needed to do was to stay calm and do what he had planned to do.

When we think about fear, we often think about physiological responses such as increased heart rate, sweating, trembling, basically being in an extremely anxious state. We rarely think about calmness, tranquility, and silence. Many of these athletes shared examples of experiencing a state of calmness unmatched by anything previously experienced in their life, while immersed in some of the scariest situations they had ever faced. Mikey Stevenson said, "The biggest scariest thing I have ever done was this year and it was the most calm I have ever been."

Usually if I am prepared to do it, I am calm about it. And if I am not prepared to do it then, then I start to get super nervous. A lot of times for

the biggest things that I have done, I have been super calm. (Jenn Ashton)

It is just little things that you have to be calm with. That's why the people doing the most risky things, the scariest things are the people that are calm, so calm. And Hugo is even calmer, you know he is a very calm....I am never scared or nervous when I am prepared. The second I am scared I have to go back into the helicopter and do some more preparation. When I get to the top and I am not scared, that's when I know it is going to go down. (Pierre-Yves Leblanc)

Performance Execution

With an immense amount of mental and physical preparation invested in the pre-performance phase of a BM freeskiing performance, it is then time to focus on actually performing the run. Going from a stopped position at the top of a two-thousand foot chute, to exploding into action begins the transition from readiness, to releasing it into action. The athletes spoke about the feeling of releasing or channelling energy and how with each good turn, or manoeuvre, their confidence grew stronger. One of the most gratifying or feeling moments described by the participants was having the confidence to perform the first turn. An intense focus in the moment was the main element cited as the most critical factor for being successful while skiing. This included the ability to re-focus when obstacles presented themselves. Each BM freeskiing performance is filled with moments where split second decisions must be made. The athletes said that during great runs, their decisions seem to be made automatically or at a sub-conscious level. During less than best performances, (and some runs where an unexpected obstacle was faced), the decisions were made con-

sciously, within a state of “hyper-awareness” as one athlete put it.

Confidence during the performance

A huge amount of confidence is needed to go from standing on the peak of a mountain to actually skiing down its side. The athletes said that it was their preparation that provided them with the confidence to leave the “comforts” of the peak. As soon as the athletes made their first turn they said the release began, and with each good turn their confidence grew stronger. Confidence is important before the run begins and during the run itself.

Confidence is huge. Because that first turn, if you are a little bit tentative you are going to just wash out. That first turn you don't know what the snow is going to be like. So you have to be soft and supple, and also have that edge. So you get that first turn and it is like, all right now you can start going. And usually as soon as I drop in (making the first turn of the run) then I have no worries you know. It is just standing at the top that is the hard part. (Mark Abma)

It is that very first turn. Because you can't see anything, and that first turn, you push off, and you make that first turn. And usually after that first turn, it rolls over and you see it all. And it is like aaaah, oh my God, cool. When that reality hits, ok here I am, and sweet, I can see everything...that is a huge change in mental and physical relief. Just making that first turn. Just being able to be, now you are on it. This is what is on your plate, now go where you can with it. (Wendy Fisher)

A cautious approach to the initial part of each run was employed by most of the athletes. Hugo Harrison was the only athlete who had a different mentality. He said that he liked to scare himself at the beginning of each run by going straight. His reasons for this are explained in the following quote. He also mentions that how you start the run usually affects how the rest of the run unfolds.

Usually I try to go really fast and scare myself at the beginning. To bring the adrenaline so I don't feel the legs burning. I always try to have something good at the top. Stomp it and be very confident. Sometimes it might be 'Oooh that was close', but usually when you almost fall, or have a bad turn, the rest of the run can be affected a lot (in a positive way). Because when you stomp (execute a manoeuvre successfully) something very good and scare yourself, your confidence builds up. And confidence is the main thing. When that confidence is high at the top of the run, it will usually go good for the rest of the run. And when the confidence gets knocked out right away then it usually knocks you out for the rest of the run. (Hugo Harrison)

Execution Focus

During the execution of a good run, the athletes focus is centered on relevant stimuli and the task at hand and nothing else. The preparation elements on which the athletes focused during the pre-performance phase such as identifying obstacles and picking safe-zones are stored in their memory and are not consciously focused on during the run. The information stored from the preparation phase is available to call up if something goes wrong. The execution focus is totally riveted to the task at hand. Seth

Morrison said, "While skiing down it's just you. You forget about all your worries and focus on your run." And Wendy Fisher said, "After my first few turns, I get into my run then. I just focus on my run. With the eye-balls on the back of my head to make sure that nothing is coming down after me."

After you actually start, a lot of stuff goes away including a lot of the bad feelings. Because at that moment that you are skiing you are more intent on what you are doing. You can't be worried about what is going to happen, you have to be focused on what is happening. If your head is somewhere else you could fall over making your first turn, and roll down the whole line. As soon as I am making that first turn I am thinking about what I am doing. And that is when the game really starts. (Mikey Stevenson)

Refocus

It is inevitable that not every run is going to go exactly as planned. Each athlete mentioned times when their focus was disturbed or not in the right place and the effects it had on their performances. All of the athletes agreed that if their focus was thrown off and they could not refocus their performance would suffer. The degree to which their performance suffered depended on the extent of the distraction and their ability to regain composure quickly.

During the moments of spontaneity or sudden extreme challenges, you stay focused on the task at hand, which is now plan B (because something unexpected has occurred). You have one choice and you have to go with it. If something goes wrong, you look for your nearest exit point (that was identified in the inspection

phase of the pre-performance preparation). Getting away from an avalanche is tough, recovering from a crash off a drop, is hard to manage as well. That's why (you have a plan B or exit plan) and you choose your line by how you feel. (Seth Morrison)

JC: So if there is a run that you are going down and you hit a shark (an unexpected object underneath the snow) or something that you can't plan for, how do you refocus? MS: I have to make a big point of it. And try to pick up a ball of yarn quick, before everything unravels and you are just trying to get things back together as best as you can. (Mikey Stevenson)

I might be 'oh fuck' but the next turn is good again and you just have to keep going with the flow of that good turn. It is like 'oops oh well I kind of hit that rock', but you just keep going. In skiing you don't have time; you just have to keep going. You have other issues to deal with rather than stopping and dwelling on it. It is totally a different mentality. Unless it just totally wipes you out, there is no reason to dwell on it. (Wendy Fisher)

Doing without thinking (sub-conscious thought)

A BM freeskiing run is full of moments where split second decisions must be made to ensure success. With intensive relevant preparation and a good focus during the run, an athlete seems to enter a state where these split second decisions are decided and acted upon at the subconscious level. Most of the athletes said that when they are skiing well, they enter a mental state where it seems like they are not thinking at all.

The biggest thing, once you start skiing, is that your head is clear. You know what is going on, it is just happening....Everything is moving pretty quick usually. Once you start skiing down, you don't have to think about anything. It is pretty incredible really, full on, just instincts...I don't hear anything, sight is just on key (relevant things), and just your feet, your body are all totally aware and working together. You don't have to think about moving any part of your body. (Mark Abma)

JC: The example of your focus in France is so amazing because just before you were going to go there was a helicopter hovering above your head and you said you didn't hear it. JL: Well the interesting thing about that was that it was there and super loud and my heart was pumping, and the second he (the starter) said "go", the helicopter turned off. As far as I was concerned the helicopter wasn't there I couldn't hear it, it was just gone. It was just like in alpine ski racing, I would never hear cheering, I would never hear the cow bell, you just go until you are done. (Jonny Law)

Some of the more experienced and more accomplished athletes enter this doing without thinking state on a regular basis, for others it only happens some of the time. Wendy Fisher said, "My instinct just took over and when I let my mind be when I was skiing, I had my best performances."

I wasn't thinking of anything, it was just reflex. It is all reflex. I don't have the impression that I am thinking at all. As soon as you drop in (initiate skiing the line) you stop

thinking. You think about your first big stunt and once you are close to it you are just so concentrated on what you need to do that you forget everything else. I start thinking again when I am at the bottom. (Hugo Harrison)

One thing that is consistent for all the participants is that this doing without thinking, running on auto-pilot or letting your body lead occurred *only* during good runs.

Everything just goes as planned. It is like you don't have to think. You just go. You go to the exact right spots, you land in the exact right spots, and you just ski to the bottom and that is that. That's how it is when it is a good run. (Ryan Oakden)

Conscious thought

Contrary to the subconscious decision making process is making decisions at the conscious level. This conscious decision making process often occurs when something happens that was not prepared for or calculated such as making a turn at an unforeseen or wrong landmark. Or something that would be quite difficult to prepare for that surprises the athlete such as a hidden rock or an avalanche. Mark Abma said, “There is that moment that everything is going well and you don't have to think, and then as soon as shit hits the fan, you are in turbo alert.”

JC: If you are skiing and you hit something in your run that throws you off, how do you refocus after that? HH: That is when you think. When something like that happens, you have a moment to think. I usually try to stabilize myself and just go with the flow. Sometimes the line doesn't go exactly as planned but it still works out. In the actual moment

you think a little bit more when you hit something that was not planned. (Hugo Harrison)

Whatever sparks the conscious decision making process during a run, the reaction is consistent according to these participants. First a state of surprise and alarm is felt which only lasts for a very brief moment, and then they shift focus to the next thing they are going to do.

You are always thinking ‘oh shit’ at first and then, ‘now I need to land this’.

It is not panic for very long; you revert to thinking about how to land perfectly. You are going to do what it takes to get hurt the least amount as possible. (Ryan Oakden)

Your attention and your energy goes to this moment and you can't be scared because you are just dealing with what you have to deal with now. You just have to focus on ‘ok I have an edge on my ski, fight it’ and that's what you do. (Wendy Fisher)

These athletes said they rely on what they called their “instinct”. This instinct has been honed from years of experience to quickly identify a possible solution to various issues.

Going from the point when things are working well to the point where shit goes wrong. It is just like your first instinct, you just have to go with it. You see an option and then you go with it. And then from there it is commitment again. (Mark Abma)

So I pointed it off and ended up drifting left. And I am eighty feet up and there is a big rock that I am going to hit. I am going to land on a

big frigin rock. And you know if you have a cliff like that, you have some time (to think). And I thought, this is going to break me badly. But you do what you can to make a bad situation dealable, and I just kept it really tight. And then at the very last second I leaned over and I kicked off the rock. I was somehow able to measure the angle of the rock and I kicked off of it with both skis at the same time with the same amount of pressure on each foot and my pole, and I blew both my skis apart in exactly the same way. I think that if I'd taken more of that hit with one leg instead of the other I probably would have broken that leg. I broke my pole within the handle and my wrist was sore from that. And I was fine and again being able to just deal with the situation. (Jonny Law)

You have to do what you have to do. And that is what my instinct told me to do, I mean how much time do you have to think and yet you have to make a split decision in an instant, it is instinct for sure. (Jenn Ashton)

The final thing these athletes do in compromised situations where conscious decision making is taking place is to remain calm. This is especially essential in situations such as an avalanche or airing over a cliff, when the consequences are severe and time is of the essence.

JC: What was going through your head when you came over the edge of the cliff and you realized that you are ten degrees off and you are going to land on rock now? PY: I just said, ok this is going to have to be the best landing I have ever done in my whole life [italics added]. The

smoothest I am going to land, so smooth, so perfect, I can't just jam my feet into the sharp rock and I sort of dove. (Pierre-Yves Leblanc)

I have been caught in a few (avalanches) and the funny thing is the few that I have been caught in, I have been as calm as can be. And you are like, wow this is the thing that I am the most terrified of. And the two that I was definitely in one, you just have to deal with it. And you deal with the moment and it is not that scary. I don't think I thought of swimming, but I definitely would feel myself hit the ground and I would try to dig into the ground, or grab the ground. And then you get flighty again, and you are kind of floating with the snow. And I remember getting snow in my mouth and I was like, oh my God cover your mouth. And so I would go through this motion of covering my mouth and then when I hit the ground, I would fight and then cover my mouth. And I would go through these things until I felt my legs, like a layer of it was slowing down... And at that point I was like, put up your hand and cover your mouth. And I was fully prepared to make that pocket and have my hand in the air. (Wendy Fisher)

Post-Performance Reflection and Learning

The post-performance reflection is the final phase in a BM freeskiing performance. This phase is linked to future successful performances when the athletes take the lessons they have learned during the performance and transfer them into knowledge that they can use for future experiences. The main element that enables the athletes to acquire this knowledge is conscious reflection on their experience. By consciously reflecting on

their experiences, the athletes are able to draw out many lessons, and think about how to apply them to future experiences. The identification and application of lessons learned appears to lead to the development of a mind-set that the athletes carry with them into skiing and a number of areas of life.

Reflection

Reflecting upon one's run is something that each athlete did shortly after they finished their performance. This reflection process appeared to occur quite naturally for the athletes. Some seemed to be drawn to reflecting on what they had done due to the amount of effort they put into something that was very much life threatening.

After I come to the finish line it usually takes a while to allow myself to come down from what I have just done. Your eyes are just (unexplainable), your heart is pounding and you are shaking. And I put my head down, and this is what I usually do at the end of competitions before I talk to anybody. I stop and I go through what I had just done, I visualize what I did. I visualized what I just did and try to compare it to what I visualized before I had done it. It is a bit of some sort of closure, because you really give a lot of yourself, it is life or death basically. It is not going out there and swinging a bat. You are controlling a day in your life that could turn out so wrong. I remember getting to the bottom, head down, poles in my armpits you know, just relaxed, get my heart rate down and visualizing the run that I had just done. (Jonny Law)

If you do something and it didn't work out how you planned and you

still get away with it, I don't get a buzz out of that. I get the chills, like maybe I should sit down for a little bit and think about it for a while [italics added]. (Pierre-Yves Leblanc)

Some athletes carry this reflection process into other larger scopes of their lives such as family.

My brother died skiing a long time ago at Squaw and I wanted to go and just reflect on his whole giving me the love of the sport. It was because of him that I started skiing. And I would think back to when I was at Squaw about how much fun skiing used to be. (Wendy Fisher)

The reflection process was felt to be important in the progression of one's skill. Jenn Ashton and Jonny Law discussed the use of video information to analyze situations that didn't go as planned to avoid making similar mistakes in the future.

Well basically I was surprised I had hit the rock. You can see the video and I have watched it over and over to see what happened [italics added] and you don't see any rocks. Just smooth powder. And because I aired onto the shelf that's why I went through enough to snag the rock, and you can see the rock after me. (Jenn Ashton)

I know now how to be better prepared for it now just through seeing myself on film and listening to the people I ski with. (Jonny Law)

At the end of our interview for this study, Ryan Oakden surprised me by making the following statement: "This definitely helped

just having the conversation. I need to go and think about the conversation a bit.” It did not surprise my supervisor because his experience has shown that “great performers try to pull lessons out of every relevant experience.”

Lessons Learned

Each athlete discussed many lessons they learned through BM freeskiing. The lessons learned came from a variety of areas within skiing.

Lessons from the Mountains

I learned that you can't lie; you can't hide anything in the mountains. You have to be true to yourself, and it gives you an image of who you are. I have learned to bring that into the real world. The real world is not like the mountains, though you can play games and pretend you are someone who you are not. The world is all about talk and how you can sell yourself but that doesn't mean that it is true. But in the mountains there is none of that. It is all real, you cannot pretend in the mountains. So I try to bring that into the real world, I don't play games with people, I don't play games with anybody. What you give is what you get. Like things are more grounded, honest people. We are who we are, it doesn't matter what you are wearing. It is your aura, your energy, that's who you are, that is not hiding anything. And then you come to the city and think that is why I have learned to be like that. (Pierre-Yves Leblanc)

Lessons from Competition

It is a deep personal learning experience skiing comps and I have learned a lot and I know now what judges are looking for and what I

can ski. Yeah it is definitely a learning experience skiing in comps (from that perspective) because there is definitely ways that they judge things and it is good. If you have a good run, then there is no better feeling, crossing the line, it is elation. Because it is done and done well and you are like, yeah! It is too bad that it is not more enjoyable for me during, but you would probably be pretty hard pressed to find someone tell you that a competition run is pretty enjoyable while it is happening. But I am sure that when those guys are riding Jaws (one of the biggest waves on the planet) in Maui or something you know they are probably not dropping into it thinking, oh this is just a peach. (Mikey Stevenson)

I learned the less I think about during the run, the better. I think back to my racing career and to my best races, and it was the races where I was having fun, not thinking at the task at hand not even paying attention to the race. And then I think my natural ability took over...my instinct. (Wendy Fisher)

Lessons from Compromised Situations

Jonny Law said the following with regards to jumping off of a cliff, and being a couple of degrees off on his take off, which led to him dropping onto a rock:

It was probably an eighty, eighty-five footer and this was a really good learning experience. My take off was kind of angled and I think that the combination of having an angled take off, actually makes you drop away, you know it is like hitting a golf ball on a slope..... It gave me a

pretty good outlook on things. What messed me up this last year, after having success and wanting to build on that, I think I messed with my focus a bit. Being more concentrated on results rather than my own personal challenge. (Jonny Law)

Learning from Injuries

Well I think it has to be the self awareness that allows me to do it. I think injuries have been a big part of it. My first injury I broke my jaw and had my mouth wired shut for a month and I think, I got to learn from my mistakes [italics added]. I found that time tough because I was really on my own.... I used to fall a lot on stuff that I don't even think about now. Just being able to fall and get up and hurt yourself and get better, it is just one big learning process.... I think that it touches again on how quickly your reality can change and how trying to be in control as much as possible but there are always going to be things out of your control. You can't let that choke you up. Some people really allow things to get them down too much, things that are out of their control. Life is too short. How can you let that stuff bug you? That's what I think skiing teaches you! As much as I prepare for the future, you have to love what is going on at the moment. You can't always say I can't wait until I am doing this or I can't wait until I have accomplished that. You just have to chill out.... The fact is my reality changed. This is now my reality. I can't be upset with what I am going to miss in the next three months or what is now what I have to deal with. is going to come because of this accident. ThCope. (Jonny Law)

What I have learned most has come from being hurt. That has taught me a lot of things. When I get hurt I analyze why I got hurt, and then use that knowledge to not get hurt again. Since I have been hurt for a while I haven't been able to ski, so I haven't been able to go to the mountains for a while. I had to focus on other skills. I was saying to Johnny (Law) we used to get such a buzz out of the perfect day, the perfect moment, and the biggest peak and the best scenery and it was so great. I was so high. But now I can't do it anymore, so everything was so boring. But then I had to re-find it. When I walk in the street, smiling to an old lady you know that I find that as a buzz. And fixing things, being nice to people, smiling to people and not making a big deal out of nothing. All this stuff is what I learned from not being in the mountains. Down here they are making a big fuss out of nothing. JC: So if you can't get that buzz out of the perfect day, you are trying to get it from another area? PY: Yeah, I am saying that just because I have found a big enlightenment, doesn't mean that I have to get it only there (in the mountains)... Someone does something negative and I pick it up and make it positive. If you take life for granted and you don't put attention on those little things, then it is going to slip away from you and you can't be a better person. So that is my philosophy and what I have learned from my injuries. (Pierre-Yves Leblanc)

Applying lessons learned to sport

An important step in acting on knowledge from experiences was to think about future applications of the lessons learned. Each

athlete shared at least a couple of experiences about reflecting on something that happened to them, drawing out lessons and then identifying areas where they could use or apply this new knowledge. The majority of application were back in the mountains in similar skiing situations. Hugo Harrison said, “Yeah but I apply lessons in a good way. I remember the lessons from that line and the next time for sure I will stick it.”

I think you get good at big mountain freeskiing through trial and error and as you experience more things like big crashes and big cliffs, you are able to apply that to what you are doing where falling becomes unacceptable. For example skiing lines in Alaska. But when you are learning and trying to progress, falling is very important. Number one, if you are on top of a forty footer and you have crashed off of a forty footer and it didn't hurt, you were fine. You can be on top of another forty footer and say, I can do this. I could fall it probably wont hurt. And you know that it is possible to not get hurt on something like that. (Jonny Law)

Developing Mind-set

The outcome from the processes involved in post-performance reflection is ongoing learning and the development of a mind-set that athletes can carry into their next experiences in life. Some of the mind-set views acquired and shared by these athletes are presented below.

Life views

JC: What recommendations do you have for people who would like to pursue a career in big mountain freeskiing? JL: Basically you have to become what you do. I learned a lot and I would apply it to anything else

I did. If I found out I wasn't able to do what I am doing now I would be able to take the lessons I have learned and apply them to like school or business or whatever. (Jonny Law)

Just get the most out of each day. You could just be resting, waiting to go again, and charge it. (Seth Morrison)

Try to be good, and to do good. Skiing is one thing I have always cared about. I want to be good. (Mikey Stevenson)

When I am in the mountains I feel like I had more knowledge than a scientist of the highest level. When you are in the mountains it doesn't matter how much money you have. If a person is not a mountain person, his knees will be clacking like this, he will be white (with fear). I am healthy, I know where I am, I know where the danger is, I feel one hundred percent confident and money will never buy that. So that's where my richness is. You need to know that you can make your buzz out of something simple. Get something out of simple things in life, and not make a big deal out of nothing. (Pierre-Yves Leblanc)

Some people might work a job that they absolutely hate but they just keep doing it. Their heart might be aching but they still keep doing it. For me it would be forget it, I am out of here. Life is hard work, and the younger you can realize that the better your future will be. For sure the younger you can have the mentality of trying hard in school or

whatever is going to benefit you in the long run, will make you happier in the long run. (Wendy Fisher)

Get experience. I have been asked this before and I think it is a hard one, because it has to be fun to be fun to do, if you are not having fun doing this then there is no point. But if you are not having fun doing whatever you are doing then you shouldn't be doing it. If you are having fun going around doing the easy lines then go for it. (Jenn Ashton)

I guess you can pretty much base your whole life on skiing, respect for the mountain and where you live and how you got here. Everything that I am going to do is linked to skiing. (Ryan Oakden)

Focused Connection

A decision was made to create a separate section for the success element of focused connection because of its uniqueness and importance and because every athlete felt it was critically important to high level performance in this context. Each athlete uses their own words to describe the importance of a focused connection with what they were doing, an intense focus on relevant things. A focused connection that led to success emerged from focusing on relevant performance elements at the appropriate time. The athletes spoke about being aware of what his or her success elements were and identified the appropriate times to focus on each of them. When do you need to be focused on line selection, when do you need to be focused on relaxing, when do you need to be focused on connecting and reading the course in front of you, when do you need to be focused on reflecting on lessons from your run? The examples of the focused-con-

nection that the athletes developed have been presented throughout this article in the quotes from the athletes. The intent of this short section was to simply highlight the extreme importance of a focused-connection to ones pursuits, in order to reach ones potential.

Discussion

This study supports the findings of Orlick (1980, 1990, 2000); Gould, Eklund, & Jackson (1992); and Orlick and Partington (1988). The elite BM freeskiers used many similar success elements including pre-performance preparation (line selection/ inspection), imagery/visualization, and positive thoughts/self talk, which helped them be confident and trust their readiness to perform. While immersed in their performance the athletes became highly connected through their exceptional focusing skills. After the performance they reflected on their experiences to draw out lessons and to build positive mindsets towards future performances and life (ongoing learning). The Love they expressed for their sport and their life was nurtured through a highly connected focus with relevant parts of their performances and their daily life.

The results of this study are further discussed in light of specific components of Orlick's Wheel of Excellence

The first element of the Wheel of Excellence is commitment. Orlick (2000) stated:

The heart of human excellence often begins to beat when you discover a pursuit that gives you a sense of meaning, joy, or passion. When you find something within a pursuit, or within yourself, that you are truly committed to develop, everything else can grow. (Orlick, 2000, p. 4)

Each participant interviewed in this study, spoke of the love they had for parts of their sport and their life. The athletes commented on their strong love for BM freeskiing. Through a process of self-reflection Jonny Law asked himself what it was in life that made him happy. What did he really love? He realized that he loved to ski more than anything else, and from that simple realization he broke his daily pursuits into simple goals to create a new reality. From that moment on he began to fill his days with elements of what he loves, elements of skiing and being in the mountains, making it easier for him to be committed and connected to his pursuits because they were created from love. *This is contrast to people who fill their days with activities based on what they think they should be doing, rather than looking into themselves to decide what they love, and how they can engage in that love more often.*

The second element of excellence in the Wheel of Excellence is a strong focused connection with relevant things at relevant times. According to Orlick (2000); “A fully connected focus releases you from everything irrelevant and connects you totally with your experience or performance. It is a mind-place where nothing else in your world exists apart from being totally connected with what your are engaged in or experiencing at that moment” (p.7). The participants in this study said that intense, focused preparation allowed them to enter the “zone” or to be fully “in the moment”. One could argue that a strong focused-connection for BM-freeskiers within the performance is when the past meets the future, in the present.

The third element in the Wheel of Excellence is confidence. All the athletes discussed this success element as being essential for successful performances. Confid-

dence in their abilities to execute their performance plan, was of utmost importance to these athletes.

The fourth element in the Wheel of Excellence is using mental images in positive ways to create positive images, positive feelings and positive realities (Orlick, 2000). Each participant for this study shared detailed examples of using positive mental images to improve the performance outcome of their run.

The fifth element in the Wheel of Excellence is mental readiness. The sense of complete readiness prior to a performance comes from preparing well and using all the elements of excellence to build that mental readiness. The athletes in this study were able to stand on top of exposed mountain peaks, stare down the steep faces, and feel confident and ready to engage in a high-risk, high-speed experience. This readiness was a result of thorough intense preparation, which resulted in the feeling of being completely mentally ready to not only survive their runs but to embrace the challenges and risk that they faced.

The sixth element of the Wheel of Excellence is distraction control. Orlick (2000) stated that at some point, “distraction control becomes the most important mental skill affecting the quality and consistency of your performance” (p.13). The athletes in this study discussed at length the importance of distraction control, the ability to refocus and regain a positive connected focus when faced with potential distractions, or obstacles.

The seventh element of the Wheel of Excellence is ongoing learning to draw actions lessons from careful post performance reflection. The post performance phase was viewed as extremely important by all of the

athletes in this study, perhaps because of the high level of risk in their sport. The athletes took the information they were exposed to during their runs, consciously reflected on it and channelled it into practical action steps for future experiences.

An extremely interesting finding in this study was related to how these athletes turned fear into focus or calmed their minds just before the start of their run down the mountain. All the athletes mentioned that the last thing they do in the pre-performance preparation phase is to try to calm themselves down and clear their minds just prior to their run.

The athletes are well aware of the deadly consequences of a less than best performance and consequently carefully plan their run and line to avoid danger zones. If they feel good about the upcoming run and the line, the athletes decide to accept the risks and their chosen line, and continue with their preparation process which increases their confidence and their ability to trust their plan. At this point their focus shifts away from anything negative and they focus solely on executing the run. The thought of death or severe injury does not enter their mind while engaged in a successful run.

One athlete stated that if the thought of negative consequences continues to stay in the forefront and leads to anxiety towards the run, he either backs off completely and creates a new plan, or looks to his prepara-

tion to try to alleviate the anxiety by accounting for whatever it was that was causing the anxiety. The importance of effective preparation in removing the negative thoughts that can lead to a less than best performance is consistent with the information provided by the accomplished astronaut Chris Hadfield in his interview with Terry Orlick. Chris stated, “The main benefit to detailed preparation is success; that’s the short answer. The long answer, the main benefit of detailed preparation is confidence and lack of fear” (Hadfield & Orlick, 1999, p. 88). Hadfield went on to say that the best indicator of readiness is not fear or anxiety, but rather relief of actually being engaged in the performance. This was consistent with BM freeskiers thoughts towards being engaged in the performance in BM freeskiiing.

The findings from this study provide insights into the success elements used by some of the world’s elite BM freeskiers in their pursuit of excellence in this high-speed, high-risk sport. The most applicable concepts discussed in this study include a strong focused-connection, loving what you are doing, the ability to remain calm when performing in contexts with extreme consequences for failure, and acting on valuable lessons from personal experiences. These success elements have the potential to guide the positive development of performers in many sports and in many walks of life.

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Focusing Lessons from an Elite Ironman Triathlete: Chris McCormack.

Karine Grand'Maison and Terry Orlick, Canada

Karine Grand'Maison completed her Master's degree in Human Kinetics at the University of Ottawa under the supervision of Terry Orlick. For her thesis, she examined the psychological skills and mental preparation strategies used by world class Ironman triathletes. She also passed her Quebec Bar exams and is currently working in a Montreal law firm. Karine has completed two Ironman-distance triathlons and is now training for the Boston marathon. She has embraced the challenge of distance sports and has a passion for working with and learning from elite long distance athletes. Karine plans to apply some of the wisdom she has gained from elite athletes to her work as a lawyer and to consulting work with both lawyers and athletes in pursuit of excellence.

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Chris McCormack, originating from Australia, is one world's best Ironman Triathletes. As a part of a larger thesis study exploring the mental skills of Ironman competitors, some of the world's leading Ironman Triathletes participated in in-depth interviews. This interview was conducted by Karine Grand'Maison, a graduate student at the University of Ottawa, whose thesis supervisor was Terry Orlick. The following interview with Chris McCormack is centered on the mind-set and focus required for excellence in Ironman. Chris shares some powerful insights on how he has become such a great athlete and there are many lessons from which we can all gain when trying to excel in demanding pursuits.

Website: <http://www.chrismccormack.com/about/>.

Chris McCormack (also known as Macca) has won almost every major short course title on the global triathlon calendar including the **ITU World Cup Series**, **Escape From Alcatraz Triathlon** as well as four of the sports most prestigious triathlon events, **GoodWill Games**, **Mrs T's Chicago International Triathlon**, **WildFlower Half Ironman** and more recently the **Ironman Australia Triathlon**. McCormack's shift in focus to Ironman racing has seen him win **Ironman Australia** on debut and then defend that title in 2003. His first race at the distance in Europe resulted in one of the sports greatest races in Roth Germany, where he was beaten in a sprint finish by Ironman's greatest ever competitor Lothar Leder (winner of more than 13 Ironman events). McCormack has proven himself as one of the fiercest forces in triathlon. With one of the best resumes in the sports history, he owns almost every triathlon title available and holds more international titles than any triathlete in history. (at last count McCormack has won over 130 triathlon races globally - at all distances). For more information, visit his website:

Karine: In racing Ironman how do you think your mind is important?

Chris: Your mind... I think it's important and not just in the race. It's the whole package, I think the training, because it is such a monotonous sport, monotonous workloads. I think your body has its bio-rhythms so as it gets tired, mentally you lose motivation so your mind plays an important role in the fact that it keeps you motivated. You have to try to remain positive because when you're not positive many times in training you're like... **pfeew!**

Karine: And how do you do it, for you?

Chris: I worked before I did sport, I was an accountant in Australia. I finished college and I was an accountant and for me remembering how monotonous and mundane being an accountant was (for me), which is to a lot of people the real world, I think this keeps me motivated because I don't want to ever go back to that. I am very blessed and lucky that I'm able to do triathlon and make money from it because for 95% of people who do triathlon do this as a hobby, things I do for love, and as a professional you turn that a hobby into a job. So it becomes more difficult. But I try to use that approach and think OK, what else would I be doing today, I'd be at work. It's hard for everyday people getting out at seven o'clock in the morning to catch the train to work in the city. They start working at 8:30, they work until... this is also mundane. That's how I try to keep myself motivated, and say you know, that is good.

Karine: In the racing itself, how do think the mental aspect of the race is important?

Chris: I think in the Ironman, it's probably 50% of the battle. You know everyone's

physically fit. You know a lot of people say it's 90% mental. I don't believe it's so much mental. You have to be physically conditioned. But at that elite level, everyone's very physically conditioned, and then obviously genetics comes a lot into play. But mentally, I look at my to Ironman failures, I've had six Ironman races, four successes, two failures, so I have a 66% success rate. And I try to compare why I was bad in the ones I was bad and I why was good in the good ones. I think in the ones that went bad, I allowed outside sources of negativity to move into my race a lot more. Things weren't going my way, I went for hard sections, the pace was fast, it was hot, windy, and it wasn't what I expected, and I allowed those things to influence my race. And once you start down its like the dark side of the force in Luke Star Wars, once you start with the negative it's easy to quit mentally. Once you switch off mentally in the Ironman, it's over. So I think in Ironman, more so than in the short course, especially when it gets hard and tough, it's very important that you be tough.

Karine: So now how do you do it to not switch off and continue?

Chris: I have a new concept now ... a new way of approaching things is to treat it all like a circle. I think of it like OK, I start at seven o'clock, no matter what I do in the day I'll be doing the race, so I can't control that. I'm a professional athlete, and this Sunday, I'm racing an Ironman. So that's uncontrollable. So the way I try to think of it is: in my perfect scenario, I lead out of the swim by five minutes, I have a 10-minute lead to out of the bike and I run great and I win by... that's a perfect scenario, but it's not gonna happen, you know, so the way I try to think of it is like a circle, no matter where I am in that circle I'm going to have obstacles and I

deal with those obstacles as they arise. So if I'm swimming and I'm behind, I deal with it. You know, 'OK, I have to make up the distance, and concentrate on the now and not the future or the past'.

Karine: What would be some obstacles you encounter?

Chris: OK in the swim, everyone has a plan for the race. My plan is to swim off and go with the front people, if that's working, if that's happening that's great, I concentrate on that; if it's not, then when I am in the now I think: 'OK, let's lengthen my stroke, how can I get back to where I want to be' and I focus on those things, and meet those obstacles as they arise. I look at those races where I said I did bad, and I didn't deal with the now. I was like 'ahhhhh, it's over', you know, 'it's finished' instead of meeting the challenge. I think a lot of people do that.

I think that's where the mental side as opposed the physical side is more important, because I think in those bad races, physically I could've been very successful, but I allowed the negative and those obstacles to stop my progress. Instead of meeting them and fixing them or dealing with them and going 'okay, let's concentrate, this has happened and let's focus on what we're doing and deal with this', I allowed that to become an issue that I couldn't get past the barrier. I never completed the circle, I stopped here, and I never finished.

Karine: So now what do you say to yourself to not allow the negativity to affect your performance?

Chris: If it's on the bike and I'm behind and I think OK, I look at my pace I look at my gear: this is my pace. This guy is going well, maybe he's going too fast. You know, you have to obviously revert back to what you're

physically capable of doing. If I'm behind on the bike and everything is going good then I just go ok, I reassure myself that this is good, he's going too fast for me at the moment. It's a long day. We have eight-nine hours, maybe he's pushing too hard. So I have to deal with what I can control, my variables. Maybe I'm going for a bad section, if it's tough and I'm losing because it's tough then I'm constantly saying 'it's OK'. Your body is not too smart, you know, your mind is amazing, your body is not too smart. It starts to think what you tell it, if you start thinking I'm tired, it's hot, your body will react so as to make you tired, it's actually lazy I think. It wants to stop, it doesn't want to be there so it constantly sends these messages that it's uncomfortable. So if you keep telling yourself: I feel good, I feel good, this is a problem, but we'll deal with it, it's OK. It starts to feel tired, so take some food in maybe it's food. Let's go for that step. Usually when you're tired, you might be running out of fuel, you know, you need to get out of the saddle, and shift, change gears. You try to control the things within that environment to take your mind off (what isn't helping you) ... does that make sense?

Karine: It does, absolutely.

Chris: Ok. ... So if I'm losing time on the bike: number one, if I'm not tired maybe it's because that guy is going too fast. If I am tired and I'm losing time, the first thing is, what can I control, maybe it's fuel. Let's get some fuel, let's drink, let's shift the gears, maybe I'm pushing too big a gears, rest the back. Just take your mind off, control the things you can control, and ride out of the storm. You keep telling yourself, it's normal, this is normal, this is an Ironman. It's a long day, eight hours. It's bio-rhythms. You're gonna have good times and bad times, you expected that, you are going for a rough patch at the moment, and we'll come good.

You know, maybe get some caffeine in and spark yourself up and nine times out of 10 you ride out the storm and BOOM! You're back! It's a bad patch, it lasts for five minutes. I've been in some races where you deadset think you're gonna die and then 10 minutes later, you are Superman again, you know your body is OK.

Karine: How did you do that switch?

Chris: How the switch happened? Like I said you just deal with that time, it's like time stands still for five or ten minutes, you're sort of dealing with these problems and trying to control, OK I'm tired, let's have some fuel let's have a bit of Coke, let's have a Shot, salt tablets, we'll change the gears, we'll adjust. A lot of people have a pattern of things that they might do. For me, whenever I tend to go for a bad patch, I always stand up, especially if I'm on the bike. I get out of the saddle, I change gears, cause you want to change the rhythms, so you might be pushing the gears for so long your body is just in a 'brrrrrr same gear'. I might pick up the cadence a bit, I might have some food, adjust, have a drink, put some water on my head, stretch my back a bit, get back down and then, 'OK, let's just ride out of the storm, it's an uncomfortable section' and then your body reacts. As long as you stay positive, as long as you don't say, 'Oh no it's over, here we go, I'm blowing up'. You've got to just remain in a positive frame of mind. And positive is not saying 'Great, I feel great, I feel great', cause you're not stupid, you don't feel great, you're not going to believe that. Positive is, like, it's an obstacle you're gonna make it, it's like OK, here's obstacle one. The day has begun I've felt great all day, suddenly I'm starting to feel tired, let's deal with this problem now OK, what can we do to control it, fix this up and just ride out of the storm. Sometimes it could be 10 minutes, sometimes it could be 20 minutes,

sometimes it could be a hill, 30 seconds, you know. And once you've rode that out, you actually feel stronger because you think, wow I just dealt with that. 'Ok we're back, I'M BACK!'

Karine: And when you're back, what are you thinking about?

Chris: Ok number one you're back, let's get back in our race plan, which is pick up the intensity, pick up the pace. You know, get back into the gear that we were using before, on the bike say, or on the run, pick up the tempo. And that's all times, it's a race and if you're behind, you're like 'OK, we might have lost 30 seconds there, let's pick that up, let's take it back, let's move in'. I'll never look behind. You know I want to know where the people are but I'm not going to look for them, look back and look for them. So if I'm in front, I'm thinking we've lost some time there, let's pick this pace, again, back on my pace, I feel good, your body is not the smartest thing. You're so physically fit that once you feel good, it's normal. It's like 'I'm back' you know I've rode this 70 times in training, the pace I'm going to do in the race. When you have a bad patch, you know you're having a bad patch, because number one, your pace slows down and you're not feeling good, and once you come out of that it's back to normal, so it's you're not really thinking anything. You're like 'Wow I'm back! Yeah, beauty! This is great and I'll start riding to pick up the tempo, and I'll work. When I feel good I capitalize on it. When I feel bad, I get on defense mode, I'll deal with the problem and I'm prepared to lose time when I feel bad. When I feel good, I'm on the attack.

Karine: What does it mean attack for you, what are you thinking about ?

Chris: On the attack means I'm racing my race. I'm an aggressive racer. I think that's why I'm successful here in Europe. I'm BANG from the start, aggressive, go! Catch me if you can, usually leading all the time, always like to be in the front of the race, always in control, an aggressive racer and put the pressure on everyone else. And when you race with that mindset, there's only two ways of thinking: You're on the attack or you're on defense, and the only time you're on defense is when you're feeling bad. And you're GONNA feel bad because you're pushing a lot harder than the guys who start out slowly. They're not going to have a bad patch until very very late in the race, maybe 10 km from home on the run. Whereas I could have a bad patch of very very early because I'm very aggressive and their Europeans are very much like that and that's why you see here in these races here in Europe, that times are so very very fast compared to an Ironman in American where it's a lot more reserved. A lot of the American Ironman competitors are very reserved. They pace themselves, very paced out, they plan the day accordingly. The guys in America tend to run quicker, but the guys here tend to swim and bike a lot harder.

Karine: You said you expect the bad patch, do you also expect pain?

Chris: Yeah, you expect pain, but...It's a different pain. I come from short course racing, where the pain is intense. Ironman pain is just a general fatigue. You're just tired, the muscles are sore, it's a pain I prefer more than short course pain, which is gut-wrenching. You know, blood in your throat, tough pain. That's the pain I don't like. Ironman pain is nice [laugh].

Karine: It's nice [laughs]? How do you deal with it?

Chris: It's another thing I expect. I think anyone doing an Ironman knows it's gonna be uncomfortable. I always think of it as, you know you're going to get sore, it's going to be painful but you're going to be close to the finish, that's how I always think. When the pain is coming, it's nearly done. The day is nearly done, honestly in the Ironman 70% of it is comfortable. The swim is easy, the first half of the bike is controlled, you can talk, you feel good, and then it starts to come and you're halfway through the race. Like I said, I'm in a circle. I always think okay, I'm here in the circle. I have to complete the circle. I've done so much I only have a little bit to go, this pain is honestly, it's not... I actually... funnily enough enjoy it.

Karine: You enjoy it?

Chris: Yeah, I like that part of the race.

When it comes, what do you think?

Hmm... [asking himself] "yeah, what do I think when it's painful?" [pause 3 seconds] That's sort of the whole reason you start doing it I guess. To push yourself and push yourself and push yourself. Because you've got to differentiate between pain and feeling horrible. There's a difference, you know like you can be in pain or uncomfortable, but still in control, and that's different to a bad patch which I talked about before, where you can be feeling great and have an absolute horrible patch or feel terrible, but it's not painful. You just feel weak and tired. That's one of those patches. I'll say you have to deal with it and take fuel. When you're at the later part of the races you have painful periods, but you can be in pain but in control, and that's the most, that's the greatest part of the race when you're on this line and push yourself and push yourself and push yourself but you're somewhat in control it feels. The

endorphins are flowing, it's like a high you know, that's the buzz I think of Ironman racing. I think that's why everyone does it, for that's the buzz! I think that's the high and mentally that's not tough. Mentally it's tough when it's painful and you have one of those bad patches you know that's the toughest combination you can possibly have later in the race, maybe on the run 5 km from home. Your legs are very tired you're tired, physically exhausted, and you've been pushing yourself, and pushing yourself, pushing yourself and suddenly you run out of glycogen, you've got no fuel left and you suddenly feel terrible, absolutely terrible, weak and tired as well as in pain.

Karine: How do you deal with it then?

Chris: For me I'm always close to home so I just think, just deal with that.

Karine: But how do you deal with it? What do you say to yourself?

Chris: 'It's nearly home, it's nearly home, it's nearly home.' And it's the most uncomfortable and painful thing and you feel horrible. And you're just trying to put in the fuel and Coke and sugar and you did the things you could control. Firstly, you feel horrible. The first thing in Ironman is, everyone's going to grab Coke for sugars, because the reason you feel so bad is because you run out of sugars. So you put Coke, Red Bull, caffeine, anything that peps you up, and falsely tell yourself, stimulate your mind, you know it's OK. For me I'm thinking it's 15 minutes, 15 more minutes and this is over, we're finished this. I'm always saying that myself. Complete the circle, complete the circle, finish the circle, 15 more minutes and we're done, we'll pack it up, go home, it's done. And if it's half an hour from home, it's like 30 minutes. It's a Seinfeld episode. These are the kinds of things. Or you, you

picture things in training, sessions you've been training.

Karine: Tell me about that.

Chris: Like you might be 30 minutes from home and for me I always picture my favorite running, where I always do my long runs in Sydney. I always say to myself: 'You're at the Springs' which is 30 minutes from home. How many times have you run from the Springs home. Now you try to visualize that run of the Springs, I'm at the Springs I've done this a million times. Today it sucks, I don't feel good, but just run home from the Springs. Put one foot in front of another and Bang Bang Bang and you just... honestly. It's like a trance . You just keep thinking...

Karine: When you visualize what do you see exactly?

Chris: For me when I visualize the Springs. I've done the Springs a lot, I always tend to suffer the last 30 minutes, because I'm so aggressive early in the race. I picture the Springs, I just see the Springs, where we run, a little waterfall. I always picture, it's a little climb that we come up and picture that. It's the first thing you see whenever you'll hit the Springs. It's like, ok I'm at the Springs you picture that. And then I try to think, ok its flat down, I picture the run from the Springs. I'm no longer running in the race. I'll probably be going [up that hill, going up that hill, let's try up, downhill...] you project yourself back there, the whole time, on the path and you come back and forwards in between (the race and the Springs). You'll be like, all this sucks! or someone will yell something from the crowd, but a lot of the times you're so tired physically and mentally, and emotionally tired at this point of the race that everything sort of becomes a blur, you sort of see things, see people. So I'm thinking about ok you're at the Springs

you're at the Springs come on, we'll probably get up that hill 2 km, 15 minutes, and THIS - IS - IN THE BAG! Done, we're done. ..and it's just boom, you just control what you can control and you get to the finish line. Last year, here, I had that going on and also a competitor right beside me so you always try to think Oh! come on, let's get home, let's get home you're at the Springs.

But I was also thinking, your competitive instincts are there, you're looking across and the whole time, it was a really strange sensation, because last year (this race) was a real cat and mouse bluffing game. I was trying to look great even though I felt terrible and speaking to Lothar, he said the same, he was absolutely destroyed. He said with eight kilometers to go he had nothing left, and I said 'WOW you looked great! You know I looked across and...' It was the biggest bluff! I just put my chest out, and that was a big mind game between the two of us. I remember last year thinking ok, when we get four kilometers from home, that's it. I took my belt off, I'm racing I don't care how much this hurts. And for me that last 4 km for me is just a blur. I don't remember anything. I don't remember, I just put my head down and ran and all that I remember is the whole time seeing Lothar's arm side by side with me. I just focused on the run, I don't remember the people coming the other way. I just kept running and running.

Karine: What were you thinking about?

Chris: I don't know! That's the funny thing, I don't know. I remember, it's like in flashes I remember coming down the hill and working together side-by-side and the hill went to the left and Lothar had the inside and I remember immediately thinking to myself, because it turned left and I was on the right hand side, I guess it's because he raced there so many times. The only mem-

ory, I think I remember is saying to myself: He's got the inside. He's gotta come out of this corner in front, bad move bad move. You're so stupid, you're stupid, you should've got the inside. We came out of the corner and he had one step in front, and it stayed like that the whole last 500 meters, one step in front. The whole way into the finish. I could not catch him. At that point, I remember I was looking, pumping my arms, thinking 'just run past him, run past him.' Because you want to, you just can't! Come on, run past him, just go, run past him! And he's just one step the whole way and all the people were going nuts. You see the photos, it's quite funny in speaking to Lothar, he said the same, as we don't remember so many people until we see the photos. I just remember looking at his shirt with Deutsche Post, a yellow shirt, and I was going 'Run past him, just go past him' and it stayed like that the whole way. And I think when I look back now physically that race blew me for the season, because I think you dig so deep and I think your body can do that only so many times where you can really really dig as deep as that. And I think it takes something from you , and for the rest of the year I was really tired emotionally and mentally very exhausted. I found in training I just didn't want to go back there again. You get to a point where your body is just like, you know what? I don't want to hurt like that anymore. So I had a good time off and I was being good. But I remember thinking for this year, this race, I don't want to tax myself like that again. I will again, maybe for Hawaii but my objective is Hawaii later.

Karine: What do you think is the hardest challenge for Ironman racers?

Chris: I guess the challenge is the volume of work, the training, the time that needs to be committed to the sport for the three disci-

plines, a lot of volume of work, it uses up a lot of time.

Karine: Speaking of that how do you manage to get all your training done and the rest you need and your little daughter, and everything in your life?

Chris: I'm pretty good, yeah I have a very understanding family, my wife is amazing. But I'm a very hard trainer. I think anyone who trains with me (knows that), I always tend to recycle people a lot. Only because I like standing at the start line thinking: "there's not a person here who's trained harder than me". So for me that's a positive, when I'm standing at the start line, in there swimming fighting in the water going ok, we've got eight hours of pain, but no one here has been through what I've been through. And every I need to in every race I do. It gives me confidence, and it gives me the edge when you're meeting those obstacles during the race and there's someone up the road you're going Oh! he's up the road, but I've been through this a million times before, you've done a thousands of these, you've hurt like of this 1000 times before, and he hasn't trained as hard as you did. They are the things you're telling yourself, you know you're ready for this, don't be soft. If I came to an Ironman and I knew I hadn't trained well, maybe I'd been injured, it becomes a lot more of a mental game. I've never been in that position, but I know, maybe I'd be thinking Oh I'm feeling bad, because I haven't done enough training. 'Oh, no, you knew this would happen' and that's when you start going in the negative path. I knew this was going to happen, hey you haven't done enough **bike** working, you're starting to get tired. You don't want those thoughts.

When you've had good training, and you're standing on that start line and going OK,

there's nothing more I could have done to be more ready for this phrase and physically I think I'm the best in the world. So there's no one here who should beat me. So anyone who's in front of me shouldn't be there and the only person who's stopping me from winning is me. When you have an obstacle you deal with it, you deal with this thing, otherwise this guy's going to beat me and he doesn't deserve to beat me, because he's not as good as you are and that's how I deal with things.

Karine: So you truly believe that you're fit, and you deserve to win.

Chris: Yes and you might ask what happens if you're not feeling good, well I have never been in that position so I couldn't tell you.

Karine: So you make sure that you're not in that position.

Chris: Exactly. Last year, I have had a terrible race in Hawaii, that I went there thinking I was super fit, but when I look back at my training, I was terrible, I got married and I partied for seven weeks and now I look back and think that's the reason. But for every race I do, I try to be 100% ready.

Karine: Do you always evaluations of your races and preparation like that?

Chris: Every time, whether I win or lose.

Karine: What do you think about or focus on for your evaluations?

Chris: For me, Ironman is new. In this race I've done less Ironman's than any other pros, even the young guys like Farris and Timo Bracht who's done eight Ironman's. This is my sixth Ironman. So for me it's a learning curve. I like to write everything down, all my training, my races, what works, what

doesn't. For the successful races I can look back, if I have a bad race, what went wrong, why, when did I feel bad, and it's just so you can replicate good things. You form the model for your training, so you can take the next block of work. For this race I've tried completely different training, because I've got a model that works, that I think works, but I'm trying to do three Ironman's a year. So it's works for two Ironman's, I won last year in Australia and I was second here, but in Hawaii I was very bad. So this year I've won Australia again, I'm back here, but I've tried to do completely different work. I'm physically fit for this race, but I have done different training. So after the race, on the weekend I'll go okay, I was successful or I wasn't successful and if I was successful, and I go on to be successful in Hawaii, that will be the model I'll replicate next year as opposed to the model I did last year. So you're always trying to find what works, what doesn't and your body is an amazing instrument. It has its bio-rhythms and sometimes you're going to feel good, and sometimes you're going to feel bad, but I think it's also a very simple, simple machine.

If mentally you know something worked in the past, replicate it again. I have done that in my short course career. My whole career, people were asking, how are you so successful? I was like well, I won a race doing that, did it again I won again, just did it again, did it again, did it again. It's simple, and people try, and coaches, to complicate things, and do this and that and try to do this... It's such a simple thing, swim, bike, run, be good at them, find something that works for you and just replicate it. As you get stronger, you might do a race and realize you might require a bit more bike volume, a bit more bike strength. You obviously make adjustments to your training, but you stick to the same patterns that work.

Karine: What race would you say was your best?

Chris: I think my best race was when I won the world [short-course]. For Ironman, I think my best performance was this year in Australia. I just think **I ruled** the way the day went. I was physically super fit, my training was exceptional, but I had a lot of things on my plate that took away from my recovery in my lead up to the race. I just started a bike shop, so I spent a lot of time in the shop, I trained all day, and then I spent all night in the shop, whereas the years before, I would have been watching television. I just had a baby girl. So there was obviously a lot of time with Talia [baby girl]. So going into Australia, I was a little bit nervous because the model I replicated and used for the last years was slightly different because of the training was the same but the recovery and all the factors that I couldn't control, well that I could control, but really couldn't control, had to come in. So I was a bit nervous coming into the race. But I ruled. I felt incredible in the swim.

Karine: So if we take that race. In the days before how did you prepare?

Chris: When I talked about the model, I have the same model for every single race. Today [two days before the race], I always have a day of relaxation. And relaxation means just away from the sport, I'll get away for lunch, you know go to hang out, you're not thinking about the race, you're just relaxing your mind because it's a big challenge in two day's time and a lot of thinking, so today I try not to think. So I might just watch television and do nothing. And tomorrow is the day of packing and planning for the race, which is: swim, what do we need, we put that together, the bike bags need to be done, we get all the bike fitted out, how much energy work we're going to take in the

race, what calorie consumption we are going to use.

Karine: It's all planned?

Chris: Yes it's all planned but it's just replicate from the years before, and its setting it up in the bags on the bike, making sure I've got all the equipment, that I haven't forgotten anything. It's the bike and the bike shoes and everything is done. I check in, I do little swim, maybe 10 minutes just to feel the arms. To feel good. I do a bit of the bike ride, do a bit of a run, 20 minutes it's pretty much 20 minutes of the three disciplines. Just to make sure everything is ready for the race, and I always eat lasagne. I have to have lasagne! I've had it since I was running as a 10-year-old. My mother used to make me lasagne, and whenever I didn't have it I raced bad. It's just a superstition, I guess. I have lasagne and then I try to sleep, the day before the race the sleep (afternoon sleep) isn't important. Tonight's sleep is the important one.

Karine: So when you wake up in the morning how do you feel?

Chris: Actually I'll get excited. And I think it's because it's still new to me, Ironman. If I compare it to when I used to get up for short course races, it got to a point, where I was like, ah here we go again, this is gonna hurt. But for the Ironman it's still a buzz. Because it's been such a long planning, it's been 12 weeks worth of work, you've thought about this moment a lot, here's the race, you've thought about the other competitors and looking forward to compete against them, and you sort of wake up and I go: wow, this is it! And the good thing about Ironman racing is it's not a rush like short course. You get there in the swim and boom you swim, you're swimming along and obviously with the front bunch, but I'm used to getting

bunched up and dealing with it. That's for me a relief, because a lot of the Ironman competitors, they only know Ironman racing, they've never done the short, aggressive Olympics and those sort of Olympic-distance type events.

Karine: They find the swim hectic.

Chris: Yeah they find the swim very hectic, whereas I enjoy it. It's very enjoyable.

Karine: You were saying earlier that you thought about your competitors a lot. When did you think about them and what did you think about?

Chris: Oh! Just in training. I know for this race Lothar is here and we've raced so much around the world and I know he is average in the swim, not a great swimmer, very strong on the bike and very strong on the run. I know, as he would know my strengths. I wonder if he'll keep up on the bike, I wonder how he is. And today is the day where you're going to find out. So it's actually a little bit exciting. You know a lot of people, they get nervous but I never really get nervous. I get excited.

Karine: So what do you do from the moment you wake up until maybe 30 minutes before the race?

Chris: I count my calories.

Karine: You count your calories?

Chris: Yeah, to make sure I have enough fuel. I have those tins out there of liquid food. I have one of those. I make sure there's enough fuel, enough calories. I count my calories, I make sure I'm drinking and fluids and eating enough, and starting the race with a full tank. That's my primary concern race morning, getting enough fuel. Because a lot

of people get nervous, and they forget to eat and the nerves are burning off energy and they don't replace energy. A lot of people start Ironman three quarters full, three quarters' tank. I want to make sure I start with a full tank, calories in. Make sure you drink during, drink and drink and that's why I try to reinforce myself as I get into the transition area. I make sure that I've eaten enough and 'Drink, drink Mecca' try to get the calories and then I'm just watching the time. Knowing when the start is, going through my warm up routine. Just a typical routine that I do for pretty much every race, start with a run then the bike then the swim. So that I finish in the water for the start of the race. And I tend to be very, in the swim I'm always laughing, 'yeah' whereas a lot of the guys are very reserved and quiet and I don't know if it annoys people, but I'm excited.

Karine: So let's say fifteen minutes before the start, you're in the water now. What are you thinking about at that moment?

Chris: 'This is it, yeah, beauty!' As a professional, I think that's you what you trained for. That's what I look forward to. The race is the bonus, it's the training that is the monotonous part, the training in the rain and the wind and the cold, and the time away. The race, **it's always the best** so I'm excited. It's like finally here, finally this is it, I've never been nervous, like a lot of people ask me are you nervous for this race. Not at all. I don't think about it, it's like, this is cool, I'm going into the battle, let's rock-and-roll. You want to beat me, try to do it. And if you do, well done. You know, and I'll finish this race, if I come fifth, I'll go ok, what went wrong. That's how I look at it and I'll adjust it and next time I won't be fifth. It's just like a game, you're playing and playing and playing until you find the perfect race, I think everyone is searching for the perfect

race. And I don't think I've had mine yet. I've had great races, but not the perfect race...

Karine: And 30 seconds before the race?

Chris: I make sure I don't miss the start. That's sort of when I get a little bit more serious. I don't miss the start, or I don't do something tactically stupid, which is like talking to someone. I'll look for Stephen and think, ok place myself among the good swimmers and lets rock-and-roll.

When the gun goes, I'll find where Stephen is and all the good swimmers and I'll get ready to go ... looking forward. It's treading water and then go!

Karine: Once the gun goes off, what are you thinking?

Chris: Long strokes, like you've done so many times in training, long strokes. That's all I think about. I'll pick up my rate [turn-over of the arms] and long strokes, long swim strokes, come on. Because the first part is fast and I'm always aware of where, I'll usually position myself next to Stephen so my whole philosophy in that sense is, he's going to be the first out of the water. So all I have to concentrate on is his suit. Obviously you look up every 10 or 15 strokes, but I just focus on swimming next to him, boom, his suit, his suit. So I don't look up or anything for maybe the first three or four minutes. We start to get into clear water, and then he might start to pull away because he's a bit stronger, and the group starts to establish themselves, and then my focus is just staying where I am, staying with the front guys. If they're obviously too fast, they'll swim away. But my aim is just to keep my tempo, the things that I've trained, the pace I've trained at, which is usually in the front group. Sometimes someone's hitting you,

and things like that that annoy you. I'll move out of the way or... if someone is deliberately (doing it)... **I've lashed out** a lot in races but I tend to just move away.

Karine: So now we are close to the transition. Any special thoughts at that moment?

Chris: 200 meters out from the transition, I'm starting to think about the bike. I might be kicking a bit more to get some blood into the legs, and I'm thinking ok, where's my bike, I picture where it is. And I'll start to have a look at who's around me then. You'll sort of get a feel during the swim who's around you, what competitors are there. It's a hectic start, it starts fast and then it sort of settles into a nice pace in the middle and it's quite comfortable. And you sort of have a look around at who was struggling or who's in the group or you sort of get an idea of who is in the pack. Hopefully, your main competitors aren't there. For me, I don't expect Lothar to be in the front pack. But if he was there I'd be going well, Lothar is having a great swim, you know, those are things you tend to think about. And I'm concentrating on the bike getting out, getting my wetsuit off, where did I leave my bag, you've walked the transition chute so you know where stuff is so you get out of the water and you just follow your path that you've done in training. It goes quick, boom on the bike. On the bike I'm aggressive early.

Karine: So what are your thoughts of that moment?

Chris: Let's go! I'm a land mammal, the swim is probably my weakness, even though I'm in the top group, but the bike and run I say is a distinctive strength. And it's like for me, now we're on the land, this is where I'm good. So boom, I'm immediately, shoes on, and rock-and-roll. I set a really good tempo,

and I try to draw, especially the younger guys into my pace, because I want people with me if I can.

Karine: Why is that?

Chris: Because it makes it a lot easier with people around you. When you're solo all day for hours on the bike, it's just lonely, it's good to have other people around. And plus, if they tend to have bad patches, you drop them. You take their energy and you feel good about it. It's like yeah, he's gone, you know, good bye, see you later, have a good day! You sort of steal their energy. I like having people around me and battling with people. I draw from that I think, I get energy from that. That's why I like this race, the people, the crowd, it keeps me pumped up. More so than if I get to an Ironman in say, Korea, where there's like five people clapping. It's not motivating for me.

Karine: On the 180 km ride you get plenty of time to think. What are you thinking about?

Chris: "What am I thinking about?" You keep repeating the circle. For me, it's like ok 500 calories in per hour, I'm going to have a Cliff Shot every 15 minutes, I'm going to drink that bidden of water within this hour. I'm going to have this, **in surplus** in the hour, make sure you replace it. Every 15 minutes you're riding along and you're like ok, there's an aid station: Cliff Shot, drink and then it's 120 calories, and when you start counting calories it's amazing how quick, that part goes, because 10 minutes on the road is not (that long)... because you're thinking in small increments all the time, you might start thinking, you might have a chat to the guy next to you, "hey, how are you going?" because it's so small, it's not four and a half hours, it's divided. You're like ok, there's an hour, have I got 500 calo-

ries in? Yep, boom start again. Making sure you're fuelled up, fuelled up, fuelled up, Oh, I'll grab a cookie! Have I got enough water? What gear am I pushing? Is the pace good? You're thinking so many things... in my first Ironman, this was my biggest concern. I was like, what the hell am I going to think of for 4 ½ hours? I remember thinking, how boring, it's going to be sooo long! And I was absolutely amazed how quickly it went. Sometimes you do Olympic-distance races and they tend to drag on...because in Olympic distance, you're not thinking of nutrition, you're just going as hard as you can. For Ironman, there is so much of thought involved that it goes of relatively quick.

Karine: And then you're out onto the run. Any special thoughts?

Chris: I'm a runner. But the run still very much intimidates me. Every Ironman I've done, I have led off the bike. So the two where I've failed, I failed on the run. So I have never had a bad experience on the bike or a bad experience on the swim. My bad experiences have always been on the run. So in the last 5 km on the bike I always think **pfew**, ok that felt good, but geez, I hope I feel good on the run. I get off the bike and the first thing I'm thinking about is, how are of the legs feeling. Oh! they feel good, and then my whole race now for the run is structured around my watch. I go ok, boom, start the watch. Now I'm going to run four minutes a kilometre, I know I can do that, I've done it one million times in training, I know I can do it comfortably, I know I won't be in any trouble, and if I run four minutes a kilometre, no one will catch me. A 2:48 marathon will win it for me, no matter what. Because the guys who can run quicker will be too far behind. So that's it, bang, I start my watch. I go for the first kilometre, too fast or too slow. And usually it's too fast, because the hype and the pump, so you tend to

just adjust your pace, you take your fuel in, and the run, really, is quite easy for the first 10 miles.

Karine: What are you focusing on at that time?

Chris: Just stay controlled, stay on the pace, this is the pace, try to stay relaxed. Obviously, you want to know where the competitors are, you're thinking, How far in front am I? How good are they looking? But I NEVER – look – back. Never, never, never, never. It's just a **motto** from running that I learned. I want to know where people are, but I'll NEVER look for them. Because I always try to think that, I'm in the lead, everyone is feeling equally as uncomfortable as I am. I consider myself one of the best guys in the world at this so anyone who is behind me, is behind me because they're not as good as me. And they're feeling just as bad as me. So to catch me, they have got to make up time, they've got to run quicker than I am right now and they can't do it. These are the things that you think to yourself. I'm running four minutes a kilometre I've got a five minutes on Lothar, if he wants to catch me, he is going to have to do something amazing, something that no one's ever done before. If he does, he has to pay for it. If he catches me and I hold this pace, then he's going to pay for it later on. Sometimes you get to a turn-around point and you come back and you'll get the times, but you'll see them for the first time, and you always try to look good. And you think geez, they look good! And you just keep saying to yourself, ok they're four minutes back, ok, we're 20 kilometres from home, he has to take one minute every 5 kilometres out of me, he can't do it man! If I'm hanging on to this pace, he can't do it. Now if you have a bad patch then, you know the time and you might have a bad patch and think ok, whew, I'm going for a real rough spot. If

I'm having a bad patch, I'm looking for the Red Bull. I have some Red Bull, and you ride out the storm. And I'll never think about my competitors when I have a bad patch. You don't think about that. I'm thinking, how are we going to ride this out? We're going to get out of this, OK, fuel, caffeine, we need sugar. OK, let's slow it down a bit, slow the pace, and you know you're in the circle, you're expecting it to happen. I'm not going into this race on Sunday expecting not to have any bad patch, it's going to happen. You just think ok, this is a bad patch, you expected this to happen, let's go! I've done this 50 times before in races, I wonder how long this is going to last, and sometimes you think, "Oh... here we go. 5, probably 10 minutes of this, so it will probably be that bridge down there." You're like, "I'll probably feel uncomfortable up to that bridge, let's just run to that bridge." Okay fuel up, get some stuff in, slow it down a bit, and then your body will adjust and you'll come out of it. It's amazing how it does it! It's like your body is trying to punish you for doing this sport, so it goes, 'take that! feel bad!' And when you show it that you're not going to stop, it goes ok, it goes back to being good again. Yeah, you have to not give into your body, because if your body senses that your mind is going to be weak and give in to it, it will SHUT DOWN! It will go, "Yeah, beauty, I win!" It's like a little battle your body and mind have with your **soul**. And once you ride out of the storm, my first concern is, how much time did I lose? And you're also thinking to yourself, they're going to have to go for a bad patch too, they're not superhuman. They are going to have a bad patch. When you're feeling good, you capitalize (on it) and when you're feeling bad, you can slow it down. If you're capitalizing when they are going for a bad patch, it ends up helping yourself out. At the end of the day, it's the person who has the least bad patches who wins the race.

Karine: Are there other obstacles, you can have an Ironman?

Chris: I think, personally, no. I think for other people, self-doubt is the biggest killer, it's the biggest killer for anyone. And that's why I like to start any race, feeling like I've done everything I can to be ready for this race. I think if you've got self-doubt, that can kill an athlete, that can take a winner away.

Karine: Do doubts creep in your mind sometimes?

Chris: The two Ironman I've failed have been Hawaii. So for me the obstacle is going back there now. In Hawaii this year, I'm going to have rough patches, and now ... they are the issues I'm going to deal with. Here I've been successful, I've been successful in Australia. It's easy to be positive because you've had positive results in those races. My big obstacle, I'll be working on for Hawaii will be having no doubts. I'm ready to race.

Karine: How will you deal with it?

Chris: Doing everything I can, I'll be training in the heat, I'm going to Hawaii on a training block for 10 days, to race the course, run the course, learn the course, KNOW the course.

Karine: That's important.

Chris: It's important just for visualization, you might be going for a rough patch in the race, and go, "I've run home from here, remember the training camp we did here, you sprinted home from here that day!" Just picture, remember I was talking about the Springs? It's all about visualization and convincing yourself that everything is good.

Karine: Do you do a lot of visualization?

Chris: In the race you do it subconsciously. You don't realize you're doing it. I tend to use that a lot. Just put myself in a positive environment, where I've had a positive result. Like the Springs I've run home so many times, I always use the Springs in 90% of the races I've done. Because I've run so well from the Springs home in so many training sessions and felt like Superman. I always try to think of my best, best times at the Spring, best run. Put yourself in that situation, "how were you feeling, how did you hold yourself, how did you feel"... And like I said, your body is just, is dumb, it will do it. I don't know any other words to use, your body is not the smartest thing. It will do anything your mind will tell it to do. You've seen these athletes start wobbling during their race, and they're physically shutting down but their mind keeps telling them "Everything is good, everything is good, keep moving forward, keep going forward." And then sooner or later, they start getting the wobbles and stuff, because their body CAN'T do what their mind wants them to do. I think the perfect person to speak to for that is Chris Leigh who just won Ironman Coeur d'Alene, who lost half his intestine in Hawaii. If you watch the video coverage of it, he said that he was in fifth place, he said in the last 8 miles he was gone but he just kept saying, "keep pushing, keep pushing, push yourself, you're good, you feel good". I think everyone says the same things. He got within two hundred meters from the finish line and his body just shut down, and he just kept collapsing. And you could see him laughing to himself, and people don't realize, you're still mentally alert. Like you know what's going on, you know...I've had some races where I've got the wobbles a lot, in some hot half Ironman in Malaysia. And you're alert, you know,

even though you're seeing pictures of people wobbling on the roads, looking like they're drunk and stuff. But you're not drunk. You just can't believe it's happening. You're like, come on, just run to that point, and your body just won't do it. And if that's why I said, your mind is so powerful and your body is dumb, because it will do everything your mind will tell it to do until it can't do it anymore. And then it will still try if the mind keeps telling it to do it. Chris Leigh tried to do that. And actually his solid intestine and everything shut down, died, and he just kept pushing forward. Falling down and getting back up, pushing forward again, going down and getting back up. I talked to him, I was like, do you remember that? He's like, "totally! I couldn't believe it..." I was looking at the finish line and thinking, run to it! And he just fell over and he was like "man, you're on the ground again! Stand up! Run to it!" And he kept falling over.

Karine: You've got to be tough mentally to push your body to do things it doesn't want to do.

Chris: I think I've always been able to do that, so I don't know the other option. I guess because I've done running in sports, since I was little. I don't see this as pushing, I see this as a physical challenge. I've always enjoyed it. I enjoy putting myself in that position and pushing myself, and pushing myself. You get immense satisfaction out of it, personal satisfaction. I don't know why, you just, you get a buzz I think. If I was going to do these Ironmans and it didn't hurt, I don't think you'd do it, would you? There is no buzz to it.

Karine: Hawaii, what do you think it takes to win it?

Chris: I think to win Hawaii, you have to be brave, take a chance. Because it's the hardest

race in the world, the hardest single day in any sport in anything in the world. And someone's going to win. I arrive in Hawaii every year and I'm 100% convinced I'm going to win. But to win, you have to be brave, you have to take a chance. There's been a lot of times in races where I've been riding with the guys, thinking you feel good. I might think I'll stay here (at this pace), you know, it's a long day. And you see people step up the pace, take the chance and end up winning the race. Then you'll think "Hey, I can beat him!" That's what it takes to win Hawaii, if you watch Peter Reid, last year, he took a chance. He is usually a very very strong biker, and he worked a lot on his run, and he took a chance early, he went out very very hard in the first six miles (on the run). I thought it was a suicidal pace. He went 35 minutes in the run. He stayed back on the bike, he wasn't so aggressive and on the run he went whack! And I was running under four minutes a kilometre and I thought pfeeew, you're an idiot. You're stupid, it's too fast. And the last 10 kilometres for him were very very painful. He was in absolute pieces. But he took his chance. He went, "You know what? Here's my chance. I'm gonna run with what I've got, catch me if you can". If you look at all the winners, all the people that have been successful in Hawaii, they've taken a chance. They've gone, you know what, it's the world's championship, and I want this more than you, and I'm gonna ride like that. So a lot of people have "died" trying and they don't become stars, but I respect this more than the guy who is racing for fifth. The person who wants to win Hawaii, the person who wins Hawaii, ultimately, number one arrives thinking he can. And I think there's only a handful of guys that turn up in Hawaii this year, thinking they can win. I think of the hundred pros (competing), honestly, there's 10 that think they can win. The rest are there for fifth place. They would be over the

moon with fifth, so they race like that. And some of them (there to win) got third, because some of them blew their paces. They took a big chance, but I respect those guys a lot more. They are more the brave athletes. The guys racing for fifth place, I can't work out why you want to race for fifth.

Karine: You wouldn't do that?

Chris: Never. I'd rather die trying, than never try at all. It's just the way I am and I guess in Hawaii, I've blown up the last two years trying. The first one I had a 10min lead off the bike, first ever in Hawaii. I went pfeeew, 10 minutes, catch me if you can. Blew the pace in the marathon. Walked the marathon. Last year, I attacked the last half of the bike. And I got away and took my chance and blew up 6 miles away, I lasted 20 miles, where the year before, I only lasted 12. So I got closer but I still failed, you know!

And everyone keeps saying, you should wait, you should relax, you have to pay your dues. You need to come tenth, fifth. Forget that! I don't want to come 10th. I'm a competitor, I'm a racer. It's in me. I don't train for 12 weeks, and go without spending time with my family, and live this harsh lifestyle to come tenth, you know! [laughs] 10th What's that? I do this to win,, if I come second I fail. That's how I am on myself.

Karine: You're pretty hard on yourself.

Chris: I'm hard on myself, because I think I'm physically good enough to win. If I was riding the Tour de France against Lance Armstrong, I wouldn't be hard on myself if he rides 20 minutes faster than me. But in this sport I'm hard on myself because I think I'm good enough to win and if I don't win it's because I've done something wrong or the person was better and I need to adjust and

make changes, so it doesn't happen again. There's no one in the sport that I have seen yet that scares me, that I think you're better than me. In short course, Simon Whitfield is a better runner than I am. I've trained with him, he's one of my best friends, and I know if we ever came together off the bike and have to run side-by-side he would beat me every single time. And it's a hard thing to swallow as an athlete. It's the first time ever in my sport where I've had to go, he is better than me. I cannot beat him in the run. But in the Ironman if I was racing Simon, I would never let myself be in that position.

Karine: So what would you do?

Chris: I would be aggressive on the bike because I'm better than him on the bike. I don't want to start the run with Simon. I've watched these World Cup races on television, with all these guys riding along with Simon and I'm thinking, What are you doing? You're never going to beat him (that way)! And they're happy to come second. "I've got second to Simon Whitfield, it's a great..." Pfeeew! But in an Ironman, there's no one I've seen who I cannot swim with, I cannot bike with, and I cannot run with. No one scares me. No one. And I think it sounds arrogant, there's no one here I don't think I'm a better runner than, I don't think I'm a better bike rider than, and that I don't think I'm a better swimmer than. Maybe there's a few people that are better swimmers, but I think I can outbike anyone and I can outrun anyone. So for me it's a big positive, and I try to think that.. I try to start the race thinking that way...

Karine: So do you think about that during, or before your race?

Chris: Yeah, I always think that when I'm in the race, I think it's something I take with me every day in training.

Karine: Everyday?

Chris: Everyday! I think, man you're one of the best, you're one of the best in the world. And that's why I think I train so hard, and I recycle my training partners. I have four or five and I recycle them, they tend to last four weeks and then they're in a heap and they have a week off. And I use the next guy up and then the other guy comes back, I tend to recycle training partners because I'm so hard and committed in training. I'm showing them how strong I am. It's very much an ego thing. As much a boost for myself and just to pick at them 'this is how quick the good guys are'.

Karine: You're very committed.

Chris: Oh I'm very committed. I say this is because I'm blessed. I found that I was great at this sport and it has provided me with a great lifestyle. And now it's only a short period of time that I can do it for and I try not to waste it. In my early racing career, on the ITU World Cup circuit, I was in Australia and winning World Cups, having a lot of money, being single and traveling around the world. I was partying and going to all these places and just party and then suddenly I was 27 years old. And at one point I remember saying. I want to make sure I don't waste my time.

Karine: At one point, you said that?

Chris: Well, I missed the Olympics. Because everything happened so easy: I've won the World Championships, I've won the World Cup series, I've won so many World Cup races, partying and drinking, having fun and thinking, "This is the greatest sport in the world, I'm so talented, look how good I am". And then all these guys beat me and I missed making the Olympic team. I couldn't believe it. I thought, I am going to have to

wait four more years, if I want to go again. You know what? I'm not going waste my time anymore. And I think I became a professional athlete in 2000. I was a professional athlete before that, but not professional with everything, my whole program. I think since 2000, that's why I think I have been so successful. I'm very very consistent. I win 95% of the races I do, and if I don't win I podium. I don't think I haven't podiumed in four years. Except for Hawaii.

Karine: So your goal is to win Hawaii?

Chris: Ah, that's all I want to win. My focus is to win Hawaii, and then end my career in Beijing at the Olympics. And that will do me.

Karine: So you will go to the Olympics?

Chris: I think so. Only if I've won Hawaii. I like to win things twice to show that the first time wasn't a fluke. So win Hawaii and then I'd like to replicate that and then that would do me with Hawaii. I'm happy to do that, and then I'd like to break eight hours for the Ironman.

Karine: Have you have always had goals?

Chris: When I first started triathlon I had the list of all the things I wanted to do. I'd write down I wanted to be a world champion, I wanted to win the World Cup Series, I wanted to win the National Championships, I wanted to win the French Iron Tour. Iron Tour is like the Tour de France for triathlon in seven days. I wanted to win Chicago, I want good to win Wildflower, I wanted to win Alcatraz. And I wanted to win the Hawaiian Ironman, and I wanted to break eight hours. That was it. I wanted to be the first man to break eight hours because when I wrote the list, they hadn't broken eight hours yet. And I tick them off. I won

the Worlds, I won the World Cup, I won Alcatraz, I won Wildflower and the only two left for me are eight hours and Hawaii. The Olympics was never on my list because triathlon wasn't part of the Olympics, and so the Olympics suddenly was added later, but I still have the list, it's on a piece of paper, it's in an old training diary.

Karine: You still have it?

Chris: Yeah! It keeps me... motivated. I've still got the ticks next to the done, done, done, and the there's two things left. And I think if I could take them off I will be able to retire for from my sport and not feel like I didn't achieve everything I wanted to achieve. And that's what I had to ask myself last year when I was walking in Hawaii. I had to ask myself, Do I want the Olympics or do I want Hawaii? So I decided Hawaii is what I wanted. Because if I finish my career in five years time, without ticking off the Hawaiian Ironman, or without ticking off the sub-eight hour race, I think I'd be disappointed.

It's not hard. It's just, I think, setting a goal and wanting to achieve it, and that's my goal.

And until I achieve that, I won't relax, I will continue to be hard on myself. I will continue to assess races, I will continue to learn from what am I doing wrong. I will continue to fly to training camps and go to different places and go and meet up with sport scientists and do tests in labs and spend time away from my family. Because I think when I'm done it will be an accomplishment, something I can be really proud of. Like, Wow! That was cool! That was cool!

Karine: Is there anything else you would like to say ?

Chris: Mentally I think I'm just driven by my desire to achieve those things. It's not so much, I'm very hard on myself. I always like to use the circle thing, because that's how I think of it to myself. It's like there's no avoiding it, you either deal with the problem in the race now, or you don't. And if you don't it's going to finish you, the race is going to finish and there's nothing worse than being in the car driving after the race going, I should've done this, oh man, if only I had

gone with Lothar, if only I'd sprinted earlier, if only I'd eaten that food, if only... I never like to have 'if only's'. I want to just do it, just do it, deal with it, do it. And if you pay for it later, you can look back and say well, I blew up because... but at least you took a chance. It's better to die trying than to never try at all. That's how I like to think. Catch me if you can you know! Catch me if you can. And if you do it, well done.

Psychological Aspects of Competition: An Interview with Anson Dorrance Head Women's Soccer Coach at The University of North Carolina

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Dr. Silva is a Professor of Sport Psychology in the Department of Exercise and Sport Science at The University of North Carolina at Chapel Hill. He received his Ph.D. from The University of Maryland, and the MS and BS from The University of Connecticut. Dr. Silva has served as a sport psychology consultant for athletes and teams for over 25 years. He has provided consultation and on-site services to professional athletes and athlete's competing at National, International and World competitions. Dr. Silva is the founding president of the Association for the Advancement of Applied Sport Psychology (AAASP), currently the largest sport psychology association in the world and was the inaugural editor of the "Journal of Applied Sport Psychology." He has coached over a dozen Carolina students who have become USA Team Handball National Team players including two members of the 1996 USA Team Handball Olympic team. In 2004, 2005 and 2006 he coached Carolina Team Handball to consecutive USA Team Handball Collegiate National Championships.

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Abstract

Coaching is a mixture of science and art with a good measure of psychology woven into the presentation of both elements. In a rare interview, Anson Dorrance, one of the most successful soccer coaches in history, provides his insights into what motivates him as a coach and how he visualizes the role of psychological factors in the preparation of athletes in general and female soccer players in particular. This interview examines a broad range of topics including why Dorrance coaches, the "core principles" his teams must commit to in order to pursue excellence, managing performance anxiety, developing team cohesion and self confidence. Dorrance also addresses concerns an athlete might avoid discussing with a coach, differences in coaching female and male athletes, and why a healthy "competitive fire" is essential to success in any endeavor. Fortright, controversial, uncompromised in his convictions, Anson Dorrance provides a provocative and insightful interview that will stimulate a response from any professional interested in performance excellence.

Anson Dorrance is considered one of the most successful coaches in all of sport. His success with the University of North Carolina – Chapel Hill women's soccer program is unmatched in collegiate soccer. He has won 18 collegiate national championships in the 24 years of collegiate championship competition and he coached the USA

Women's National team to its first world title in 1991.

Recently, I had the honor to interview Coach Dorrance and ask him specific questions on the importance of psychological aspects in the training of athletes for high level competition. Coach Dorrance has trained both

men and women athletes at the highest levels of competition. We discussed the similarities and differences involved when coaching men and women and how these differences impact both the athlete and the coach. Coach Dorrance's responses are unedited and provide a rare window into how a highly successful coach applies psychology on a daily basis in the training of athletes for competition. Some of his perspectives have been labeled controversial and I imagine his responses will stimulate dialogue, conversation, and controversy. The questions and answers appear in the exact order they were presented during the interview and there is no editorializing on the part of the author.

John Silva: A widely accepted principle in psychology states that people are motivated to fulfill their needs. What three or four personal needs does coaching soccer fulfill in your life?

Coach Anson Dorrance: Well, I guess I love associating with people, and the nice thing about the coaching profession is that's basically what you do. You spend your life associating with people, recruiting them certainly in a collegiate environment. Hanging out with them, because you're training them, trying to motivate them to perform at a higher and higher level. And so it fulfills a very personal need, because it's very connected. And certainly coaching is wonderfully connected. I started out as a men's coach, and one of the many reasons I jumped to coaching women is the unbelievably powerful personal connections with the women. With the men, you have some of that, but not to the same extent. So a lot of my reasons for actually coaching both for ten years, but for jumping to women's soccer is that it's incredibly rewarding to connect with these young people. Part of the reward lies in this period between the ages of 18-22, when there's tremendous maturation

in all kinds of ways. So that's certainly one. I have always enjoyed playing games. Board games, even things outside sports, futsal. I love playing any kind of game, sports, games of all kinds. I've always enjoyed the competition and the challenge of that. That's always been a part of my personality, and so to be able to jump into a profession where obviously that's clearly a part of the mix has been wonderfully rewarding as well, because it's part of my nature to want to compete with someone in something. And then I am a citizen of the world. I was born in Bombay, India and lived in Bombay and Calcutta as a young boy and then moved to Nairobi and from there to [some city in], Ethiopia from there to Singapore, Malaysia, and then to Brussels, Belgium. I was educated at a Swiss boarding school in Fribourg before coming to college in the United States. So I have a wonderful sort of understanding of the politics of soccer. And so my involvement in this game also involves trying to get the United States to a level where it has an impact in this sport, which is not our sport. I know the huge respect the world has for people that can play this sport well. I had a great platform in 1991 when we won the World Championship in women's soccer for the first time. And of course the U.S. team has been filled with either players of mine that are coaches or people who have coached with me, from a leadership perspective, and then certainly the roster to this day is dotted with Tar Heels. I have a wonderful kind of personal connection to the world and the world game. So that for me is also wonderfully fulfilling and rewarding. So I think those three elements are probably the most overpowering of my fascination and sort of enrichment from pursuing this.

John: What would you say would be some secondary level needs that are met?

Coach Dorrance: I guess I've never really had a real job in my life! So to do something that I would actually do for free is pretty bloody good. I hate paperwork. And so fortunately, a large percentage of what I get to do, doesn't deal with paper. So there's a sort of secondary positive element to what I do. I get to be paid for something that, for me is fun. So that's probably one secondary thing. Remarkable freedom. I don't conform to a clock, I don't check in with anyone. My schedule is my own, if I want to go golfing, no one would stop me. And I really love the kind of freedom I have in this job. So I think that's also an extraordinary positive aspect of the coaching profession. And then another thing that's kind of neat about coaching women's soccer is we have a wonderful kind of, B, C or D level celebrity without the pressure of being an A celebrity. No one stops me on the street, and I can eat a restaurant meal, and yet there's the satisfaction of having some recognition without any of the responsibilities of it. No paparazzi taking photos of me or my family. And yet there's a positive kind of exposure from having some success in there. But it's not enough of a media magnet to make it repressive. And so it's a wonderful kind of, as I said, C or D level celebrity. It gives you a kind of personal satisfaction and yet requires no responsibility, which is also wonderfully enjoyable.

John: Briefly discuss a few “psychological principles” that you believe create the fabric of Carolina women's soccer.

Coach Dorrance: I guess I believe that superior athletes develop in competition. Part of what we try to structure here is extraordinarily competitive. We believe in holding everyone accountable in numerical ways that for most of my colleagues is mind-boggling. Every time they compete, whether or not they win in 26 different categories, it's

all recorded. And it's a matter of public record. So we generally believe that the way someone develops psychological hardness and develops competitive fire is through an environment where winning and losing is basically critical. So that's a principle that I think is vital to the development of the players I'm training.

I'm also extraordinarily high on doing everything I can to develop leadership. I'm not one of these people that actually thinks you can develop it to a great extent. I think we all land somewhere on the leadership continuum, and I think we can move someone along the continuum to a degree, but I don't think you can transform someone, the way leadership institutes feel they can. I do think you can move them, so I think this kind of training is vital if we're going to be a successful team. So leadership is critical for a championship team. I've had very talented teams that have lost because of a lack of leadership and some very average teams that have won because the leadership was so extraordinarily powerful. So this is something that we consider part of our fabric.

I also think that conscious character development is a vital ingredient in developing a culture that creates and endorses and produces champions. So a lot of what we do with our time outside in the training environment is address these core values, which we actually have the players memorize. It is interesting; the way kids have been raised right now, and sent into college to play sports. At least for me in my experience, many players have a remarkable sort of softness about what's expected of them in areas beyond the game. It's something that actually William Damon addresses in his book “Greater Expectations”. He talks about the culture of indulgence in our homes and in our schools. And I am subjected to this indulgence. Because so many kids that come

in, it's all about them and playing time and it's all about issues that are extraordinarily selfish. And you can't have a successful team with a collection of selfish individuals. A lot of what has to happen when a player comes into our culture is you almost have to reshape their character. We do it by asking them to memorize eleven different quotations that are attached to core values. We started doing this when I read an article in the New York Times about this woman who had attended Columbia, I believe, to study for her PhD in literature. Columbia had just hired a Russian poet that had left the Soviet Union to come to the USA. A poet by the name of Brodsky. Brodsky's first assignment to the graduate students at Columbia was for them to memorize reams of Russian poetry. And this woman was remembering back to her time there as a student and said that initially there was a huge rebellion among all the graduate students there that had Brodsky as an instructor. They felt like memorizing reams of poetry was something they did in elementary school and of course these were sophisticated American graduate students, and you know, they weren't going to descend to doing something as mundane as memorizing reams of poetry. So there was sort of a mini rebellion. Then for some reason she said they all decided to humor this Soviet goat and memorize what he wanted them to learn. Then all of a sudden within three or four months the fabric of their discussion and the fabric of their writing all started to have these threads of the poetry they had memorized. She felt this had transformed her. So this exercise that initially they thought was an absolute waste of time, ended up becoming one of the rocks of her development as a student of literature. I saw this article, and I decided we're going to introduce this for our character development. Sure enough, I genuinely feel now that memorizing the way you have to behave, you know, simple things like George

Bernard Shaw quote about being a whiner, you know, be a "force of fortune instead a feverish, selfish little clod of ailments and grievances complaining that the world will not devote itself to making you happy." And we have eleven of these statements that address the core values. We have all the elements that we think are most critical for developing a championship environment. These are called the **Core Values** of our team:

Let's begin with this:

- I. We don't whine.
*("The true joy in life is to be a force of fortune instead of a feverish, selfish little clod of ailments and grievances complaining that the world will not devote itself to making you happy." **George Bernard Shaw**).*
- II. We work hard.
*("The difference between one person and another, between the weak and the powerful, the great and the insignificant, is energy – invisible determination . . . This quality will do anything that has to be done in the world, and no talents, no circumstances, no opportunities will make you a great person without it." **Thomas Buxton – Philanthropist**).*
- III. The truly extraordinary do something every day.
*("Roosevelt, more than any other man living within the range of notoriety showed the singular primitive quality that belongs to ultimate matter, the quality that medieval theology assigned to God: 'he was pure act'." **Henry Adams Theodore Rex – Desmond Morris**).*

IV. We choose to be positive.

(“ . . . everything can be taken from a man but one thing: the last of the human freedoms – to choose one’s attitude in any given set of circumstances, to choose one’s own way. And there were always choices to make. Every day, every hour, offered the opportunity to make a decision, a decision which determined whether you would or would not submit to those powers which threatened to rob you of your very self, your inner freedom; which determined whether or not you would become the plaything of circumstance . . . in the final analysis it becomes clear that the sort of person (you are is) the result of an inner decision . . . therefore, any man can . . . decide . . . that (this) last inner freedom cannot be lost.” Viktor E. Frankl Man’s Search for Meaning).

V. When we don’t play as much as we would like we are noble and still support the team and its mission

(“If there is a meaning in life at all, then there must be a meaning in suffering. Suffering is an ineradicable part of life, even as fate and death. Without suffering and death human life cannot be complete. The way in which a man accepts his fate and all the suffering it entails, the way in which he takes up his cross, gives him ample opportunity – even under the most difficult circumstances – to add a deeper meaning to his life. It may remain brave, dignified and unselfish. Or in the bitter fight for self-preservation he may forget his human dignity and become no more than an animal. Here lies the chance for a man either to make use of or to forgo the opportunities of attaining the

moral values that a difficult situation may afford him. And this decides whether he is worthy of his sufferings or not.” Viktor E. Frankl Man’s Search for Meaning).

VI. We don’t freak out over ridiculous issues or live in fragile states of emotional catharsis or create crises where none should exist.

(“What an extraordinary place of liberties the West really is . . . exempt from many of the relentless physical and social obligations necessary for a traditional life for survival, they become spoiled and fragile like over bred dogs; neurotic and prone to a host of emotional crises elsewhere.” Jason Elliot An Unexpected Light: Travels in Afghanistan).

VII. We are well led

(“Not long ago, to ‘believe in yourself’ meant taking a principled, and often lonely, stand when it appeared difficult or dangerous to do so. Now it means accepting one’s own desires and inclinations, whatever they may be, and taking whatever steps that may be necessary to advance them.” William Damon Greater Expectations).

VIII. We care about each other as teammates and as human beings

(“No man is an island, entire of itself, every man is a piece of the continent, a part of the main . . . any man’s death diminishes me, because I am involved in mankind, and therefore never send to know for whom the bell tolls; it tolls for thee.” John Donne For Whom the Bell Tolls).

IX. We play for each other.

(“People don’t care how much you know until they know how much you care.” Note given to me by Rakel Karvelsson (UNC ’98))

X. We want our lives (and not just in soccer) to be never ending ascensions but for that to happen properly our fundamental attitude about life and our appreciation for it is critical

(“Finally there is the question of whether we have a duty to feel grateful. Hundreds of generations who came before us lived dire, short lives, in deprivation or hunger, in ignorance or under oppression or during war, and did so partly motivated by the dream that someday there would be men and women who lived long lives in liberty with plenty to eat and without fear of an approaching storm.

Suffering through privation, those who came before us accumulated the knowledge that makes our lives favored; fought the battles that made our lives free; physically built much of what we rely on for our prosperity; and, most important, shaped the ideals of liberty. For all the myriad problems of modern society, we now live in the world our forebears would have wished for us—in many ways, a better place than they dared imagine. For us not to feel grateful is treacherous

selfishness.

Failing to feel grateful to those who came before is such a corrosive notion, it must account at some level for part of our bad feelings about the present. The solution—a rebirth of thankfulness—is in our self-interest”.

Gregg Easterbrook, The Progress Paradox.)

XI. And we want these four years of college to be rich, valuable and deep.

(“College is about books. And by the word books, the proposition means this: College is about the best available tools—books, computers, lab equipment—for broadening your mastery of one or more important subjects that will go on deepening your understanding of the world, yourself and the people around you.

This will almost certainly be the last time in your life when other people bear the expense of awarding you four years of financially unburdened time. If you use the years primarily for mastering the skills of social life—as though those skills shouldn’t already have been acquired by the end of middle school—or if you use these years for testing the degree to which your vulnerable brain and body can bear the strains of the alcoholism with which a number of students depart campus, or the sexual excess that can seem so rewarding (to name only two of the lurking maelstroms), then you may ultimately leave this vast table of nutriment as the one more prematurely burnt-out case.” Reynolds Price).

I consider these core values another cornerstone of why we’re successful. We insist on a certain kind of behavior among the players and the team and we consciously try to make sure that they understand what acceptable behavior is, what our mission statements are, and what we tolerate as acceptable behavior. I think that’s been critical for our success. Then the other thing is, I’m very big on playing for each other. And so the psychology is, the players support one another and obviously it’s a huge challenge for a reserve to support a starter. But then for a starter to

appreciate a reserve....one of the huge conflicts on constructing team chemistry is this dichotomy between a player that plays every minute and one that never plays a minute. And the exchange between those two, does the one sitting respect the one that's playing? Does the one playing respect the one that's sitting? And do they have a relationship of respect that basically creates an atmosphere of support, where everyone understands their role and supports the team on its mission. I think those are probably the critical elements vital to our success.

John: The player sitting on the bench can often end up playing a crucial role in creating the competitive environment a coach wants especially in the practice environment.

Coach Dorrance: In training. Absolutely.

John: Playing time is often a difficult subject for a player to discuss with a coach. Often, many players have concerns that they do not like to discuss with the coaching staff. What issues would you identify as the most difficult issues for a player to discuss with the head coach?

Coach Dorrance: I think the most challenging thing for a player is to sort out why they're not playing. And that's probably the most difficult topic for them to bring up to their coach. Obviously if the coach isn't playing them, the impression the athlete has is that the coach either doesn't like, and usually, certainly in coaching women, if a woman doesn't play, unless you have a remarkable rapport, they immediately conclude – it has nothing to do with their playing ability, it has entirely to do with whether or not you like them. So what they do to protect themselves against the prospect of being terrible players is they sort of burden the coach with the mantle of not liking them.

And this is a wonderful kind of excuse because it separates them from the responsibility of doing anything. And then of course what ends up happening is the player, if this is the climate that her psychology is based in, doesn't feel like she can do anything to escape it. So then this motivates her to do nothing in practice to change her status, which of course exacerbates her ability to get playing time. So part of my responsibility as a coach is to ensure every player that they're in full control of whether or not they play. And it's an incredibly heavy burden for a player to accept that responsibility. They'd much rather have the reason for them not playing is that the coach doesn't like them. They would hate to have that the reason for them not being able to play is that they're lazy or they don't play with intensity or they have no self-discipline or they don't compete or they don't have any self-belief. They would hate to have the reason for them not getting on the field to be those reasons. And a part of what I was sharing earlier, a part of the culture that surrounds this player protects her from being responsible. Because of course the mother or dad on the phone with them, or maybe the high school coach or the youth coach, or the best friend even within the team structure are obviously trying to say things to make this individual feel better. So there's a support structure around the player that prevents her from taking responsibility. The mom and dad obviously are getting information from the player about why she's not playing, and that information rarely strikes on the fact that everyone's kicking her butt in practice. Usually it's about her not being given a chance or whatever the current moaning and groaning of her particular personality is. And then of course when the parents are given the wrong information they're on to protect the kid against the chaos of the universe, that she sucks, and so then what ends up happening is that the player feels fully protected, the

mother and father and everyone else are telling her “well, I can’t believe you’re not playing” but of course they’re being fed information that doesn’t have any basis in reality. And so that’s part of a construct that’s obviously extraordinarily negative. So the huge challenge for the player is, well, do they have the guts to come in and find out why they’re not playing, and that confrontation is a very challenging one for the player. It’s not as challenging for the coach, because the coach is dying to let this player know why she’s not playing. But the reality is something that may separate the player and the coach. So then what the coach has to do to not be completely separated from the player is to find something the player does well. So in this conference, when the player finally comes in to address playing time, the coach is dying to find something to connect them. And especially with a female player, it can’t be an entirely critical session. So you struggle to find something. So, here’s the irony of finding something: when the coach finally throws this player some kind of bone, that’s the bone the player uses to re-leverage her parents and supporters into the fray of the fact that that it’s unfair she’s not playing, even though 95% of the discussion was about lack of fitness, no competitive fire, lack of self-belief, lack of discipline in the off-season. ‘But your talent is extraordinary, I’ve rarely seen a player with your ability, if we could just correct these areas’. So of course the player leaves the meeting thinking that the coach just said she’s an unbelievable player, ‘oh Mom, the coach thinks I’m an unbelievable player, I can’t believe he’s not giving me a chance.’ And the other stuff of course is thrown to the wind, it’s very hard for a player to take responsibility for the fact that she doesn’t play.

That’s one issue that is difficult to discuss with a head coach. Another one is why there is a chemistry problem on the team. If

there’s a chemistry issue and they’re struggling with some other people on the team, that’s a very difficult dynamic to sort of unfold before the coach. Those two issues in particular: playing time and personal issues of chemistry are tough ones to discuss with the head coach. Players are very good at discussing team issues, but they have a very hard time discussing their own issues or when the team has issues with them.

John: How about areas often discussed by coaches and sport psychologists such as self-confidence and performance anxiety?

Coach Dorrance: Actually, they are pretty good at discussing that, because it’s so clear to the coach, it’s actually something that is volunteered by the coach, in practice and walking off the field, or walking on the field. That probably isn’t as major as some of those others, although confidence is such a huge force, I mean, it takes a player from being poor to average, average to great...it’s such an accelerator in player performance. I see it so often, I initiate that conversation. The players don’t have to. But, you know, John, you might be right, it might be something that’s also impossible for them to admit, because if they’re trying to play, or trying to become great, maybe one of the toughest things to admit is that confidence is an issue. Because what that almost does, is that it undermines their case. They’re trying to play, and they admit they have a confidence issue. Maybe that’s something they don’t want to share because it might undermine their mission, which is to either play more or to ascend to another level.

John: Confidence does come up often in discussions between sport psychologists and athletes. Do you feel like an athlete might be reluctant to bring up the confidence issue with a coach because the athlete believes that while the coach may be aware of the

confidence issue on some level, it's never been agreed to, or openly admitted to, and if the athlete acknowledges confidence is an issue and does so at an open level it is no longer an unvalidated idea but a fully exposed concern?

Coach Dorrance: Yes. And I think that's an excellent point. I think that might be a factor in why they wouldn't volunteer it. It's interesting, because I am very assertive in that aspect of coaching, I address it regularly.

John: I think you touched on this a little bit, but I'm going to ask you to put it into crystal clear terms! If you could describe the ideal psychological makeup of a competitor, what characteristics would you give this person? What would the psychologically ideal athlete look like to you?

Coach Dorrance: The most critical thing is to have a competitive fire. The great ones I've seen have the most extraordinary competitive fire, it's an issue in their lives, and it can be a problem. I mean, this is a very hard thing, and I'm talking about the ones with that hell-bent "I'm going to carve you up" mentality. It's actually very hard to corral and leave on the field. It almost becomes a chip on their shoulders, and the way they conduct their lives. Or it becomes such a stress, it's not an easy horse to ride. But this competitive fire is absolutely vital among the truly great ones. And a part of the foundation for this competitive fire are things like, they have to have a relentless personality that has absolutely no remorse, I mean they have to have the shark mentality - blood in the water. And to some extent lack compassion, I mean, to have this quality you eliminate some very positive human qualities along the way.

I pick up the newspaper and read about all the different sports events, and I'm reading

about this thing that happened between Chris Paul and the N.C. State basketball star Julius Hodge. Paul apparently just racked him during the game. According to the newspaper reports it was deliberate. This is a competitive fire, it verges on being bankrupt morally. Because it has to be such a driving force. I know that personality. I am that personality. All the truly great ones have this competitive fire and it is not easily manageable in a in a moral sense, but it's absolutely critical. And then a part of it is sort of relentlessness. But for it to exist, the foundation has to be built on a platform of remarkable physical discipline. So you can't express your competitive fire unless you've got the juice to feed it. And so this discipline aspect, being fit enough, has to exist in order for you to exhibit it. The cliché "fatigue makes cowards of us all" is an appropriate one. So part of having this extraordinary drive and competitive fire is having a base to express yourself with, because if you don't have any fitness all the competitive fire looks like without fitness is frustration. Because you can't get anything done. So those two things are intermixed.

The score is irrelevant, and your competition is not just with the opponent. It's with your teammates. You not only want to beat the opponent, you also want to be the best on the floor, the court or the field or the pool. In other words, it's aimed in all directions, it's not focused on just winning the game or against an opponent. It is going after everything, it also goes after history. Your place in history. It goes after absolutely everything. And if you have that, that's what separates you. It's incredibly rare. I mean, everyone thinks they're competitive. They have no idea. Some of my kids tell me they're competitive and I'm incredulous, I'm incredulous that they actually think they're competitive. Well, they're probably competitive compared to the girls they went to

kindergarten with, or the girls they played high school soccer with, or maybe the ones they played on their club team with, but they have no idea what a competitive personality looks like.

John: I see that relentless pursuit in top professional athletes. They are extremely competitive even with their teammates. In the locker room and on the field the types of exchanges that they have with their own teammates are often intense. The general public and others who have not been on the inside of high level athletics – especially professional athletics- do not fully understand the hardness of some professional athletes. The intense exchanges they have and the way they challenge each other is very direct.

However, I have found many professional athletes have come through a culture of challenge so they do not take the confrontation as a personal attack and they get past it one way or another. It is a subculture not found in many work places. There is often a stripped down clarity because in actual competition there is no room for distortion – you can see who is getting the job done and who is not.

If this hardness was brought to most work places colleagues would be forever wounded. It is part of the hard psychology found in direct competition but it is not the norm in most work cultures. In high level athletics you know when somebody's not getting the job done in practice or when somebody is not getting the job done in actual competition. Players will confront each other because the drive to excel has brought them this far and they do not want someone else who lacks passion or commitment to fail the team. In high level performance team sports the achievement of the team is dependent on all players competing and

maximizing their ability and contribution to the team. The margin of error is very small between success and failure at the highest levels.

Coach Dorrance: Correct. Because they want to win. And if a teammate is compromising the team's capacity to win, they will hear it from you. That's correct.

John: What would you identify as some of the more common psychological concerns that female soccer players have.

Coach Dorrance: The biggest concern with the females is they don't naturally compete. And so I think a part of what we do here exceptionally well that separates us from other programs is we train them to compete. We've done this for a long time and I think we have trained the United States in this and it's becoming a lot better in this country. Women can more successfully compete against another woman if they don't like them. What they end up doing is creating a hatred for an opponent or opponent's coach in order to commit themselves to be rabidly competitive. This is not a natural instinct. With the males, it's more natural to compete. They don't have to be rabidly angry or hate someone else to go after them. So I think the male athletes have a little more natural competitive platform. And maybe it's the sociology of women, or maybe it's something genetic, but they really struggle to compete with their friends. And part of the reason is, if you compete with a friend, they consider you “nasty” and that separates you from them. So it becomes a personal issue if you crank up the competitive level. So a huge challenge in women's athletics is to get them to compete against their teammates and friends in practice with the same intensity they compete with their bitter rivals. And it is extraordinary to me how some players

need to hate the opponent in order to compete with them.

I tell this story all the time; we were driving to the University of Connecticut one year back in the days when we would travel up there in vans to play them. I had a girl that the night before she committed to us was flipping coins between us and the University of Connecticut, which meant obviously she really loved Connecticut and the girls that were there, because she could easily have gone there. She ended up with us. Just, you know, maybe with a coin toss, ended up heads and it was Carolina Tar Heels. So she could've gone to Connecticut, she obviously liked the kids there, liked the coach there, liked the campus but she ended up coming to us. It is now her junior year at Carolina. We are driving up to Connecticut and I'm driving the van, she's sitting behind me and the whole discussion was about how she couldn't wait to beat the cows at UConn. And I'm just incredulous; because I don't have any animosity to anyone we compete against. And finally, at a rest stop I said "how can you say these things about Connecticut, you almost went there?" "Oh, I never would've gone there!" And she started denying that she virtually ended up a Husky at Connecticut. Well, what I've learned over time was that helped her compete with them because UConn at the time was our rival. "Hating" them helped her compete against them. Part of what she had to generate within herself without foundation, I'm sure, is there was something wrong with UConn. And it seems to me that in women's athletics they need that psychological gasoline in order to compete. And men don't need it to the same extent. Men I think are more natural competitors, predators, than the women are. So that's a huge challenge for me, to get the women in practice to go after each other the way you would a rival.

That would be the main one. And then the second one, right after that, actually is leadership. It's very tough to get women to lead each other, because they would rather be led by a consensus. They would rather have a committee meeting and through the committee decide what to do, but of course you know in athletics, when things are going wrong you can't have a committee meeting to sort out why Mary isn't trying that hard. What has to happen in the game is that somebody's got to scream at Mary and have her get in gear. Otherwise all of us are going to have our butts kicked, and now you're the weak link, and you've got to get it together or we're going down. So, you can't have a... "gentle chat" about where a player's brain is on a given day.

It's very tough. So when you get one, like Carla Overbeck, the captain in 1996, and the captain in 1999 at the world championships, and a gold medal in Athens, they're unbelievably rare. Carla was so extraordinary. She would actually scream on the field, during the game, "get so-and-so out of the game, she's killing us." The girl could obviously hear it, you know what I mean? And she didn't care what the girl thought about her. If she wasn't going to compete to Carla's satisfaction, she wanted the girl subbed out of the game immediately. And trust me, when Carla made a recommendation, on the bench we didn't hesitate. We wanted the players to know we respected that kind of leadership, and I would never fight her. Even if I disagreed with her, I would never fight it, because I wanted women like that on the field, holding each other accountable verbally. So verbal leadership is a huge issue as is a competitive fire against friends and teammates in practice.

John: Could you elaborate a little bit more on the obvious differences you see in coaching males and females?

Coach Dorrance: Well, it would take me forever because there are so many it'd be hard for me to recount them all. But they're motivated differently. You can't lead women with the intensity of your own personality. A part of what motivates a man is for the coach to actually scream at him during the game to get him going, and that does get him going. And a lot of the times, obviously being a male I understand this, half the time the reason you start playing is you're so irritated at the criticism. And that feeds your adrenaline. So that almost is the priming of your adrenaline pump, to have someone criticize you verbally, and embarrass you in that fashion. You refuse to be embarrassed and now your adrenaline is going, and because you want to kill or strangle the coach right then you pour that in, you sublimate that into a 50-50 ball.

That's totally ineffective with women. What happens when you are that way with a woman, unless you have a very good and close personal relationship with her is that you are going to actually shatter her confidence. And it's a totally ineffective way to lead women athletes. And I know that what's common in sport psychology is we all want to believe the way to motivate everyone is the same way. But I'm here to testify, John, it's not. I mean, even though men would love to be coddled and complimented and stroked and hugged, there are moments when that's not going to work. Sometimes their egos are so huge, that's what they believe anyway, so it doesn't impact on them. The only thing that ends up driving a huge male ego is to let them know it's not good enough and that gets his attention.

No better example than watching how Duke basketball is coached, how Mike drives his troops. Nothing coddling and, I mean, obviously they know that he cares about them, but the way the message is delivered isn't

through "I just want you to know, Peter, that I think you're a wonderful human being, but would you please get your butt in gear in the next five minutes." No, it comes out very quickly because something has to happen immediately. And I think that is a difference between men and women. I think with women it totally doesn't work, it totally shatters their confidence. Not that we don't all live on a continuum, we do, and there are some women that can be coached like men, and there are some men that have to be coached like women, but generalizing, I think with women you've got to be overwhelmingly positive. You can't afford to criticize any of them until they trust you. And then a part of the criticism has to be constructed in a way where they have to feel like you care about them at the end of it some way, otherwise they're not going to be listening to it.

No better example than when one day a player comes into my office and leaves this note on my desk. "People don't care how much you know until they know how much you care." And what she was telling me was "you know, I'm not listening to you because you don't care about me." And that was a great message, so I, until this day it's been on my desk, and it's somewhere out there, and because it's the truth and I needed to be reminded of that. Leading women for me is a construct. It's not easy for me. I've had to learn how to lead women, because I certainly didn't do it naturally.

Videotape is totally ineffective with the women. Men need videotape. I mean, a male's got to know that he can play better than what he's playing. Of course, every male thinks that with general criticism you're speaking about someone else. Videotape crystallizes that they're the one that needs to change their performance. General criticism with women, every

woman thinks you're talking about her. They don't need videotape. You can make a general criticism and even the women that aren't committing this mistake will feel like "oh my gosh, he's talking about me," even though that's the last one you're talking about, you know, the woman who probably feels that you're talking about the most. So videotape has a different function for men and women. We use videotape to show women they can play. With men, we show them they can't. Men's videotape sessions are about mistakes. Not always, because obviously every now and again you're going to build their confidence with a positive tape. With women the overwhelming majority of tape has to be positive, otherwise it's going to shatter their confidence. They're not going to look at it and try to correct it, they're going to look at it and say "oh my gosh, I suck." And that's going to impact negatively on their construction of confidence. Praise has to be different. Men love public praises. Women hate it. Women hate to be singled out in front of their peers, because they know every woman in the room hates them with a passion, that they're being singled out by someone for something personally glorious and they aren't, the woman you're praising also hates it. I mean, everyone hates it.

You've got to pick the way you compliment them. And the best way, I've discovered, is with a personal note. I mean, one of the greatest gifts I've ever been given was by Mia Hamm. I'm driving to work one day, and I decide to go through Umstead Park. All of a sudden - this was in the second semester of Mia's senior year and early in the morning- I see this sprinter in the park. I actually pulled over because it looked like Mia, and damn if it wasn't. I couldn't believe it. She's out there by herself, 5 and back, 10 and back, 15 and back, 20 and back, 25 and back and it was unbelievable. I mean, this is

the final measure in athletic greatness. For her to train on her own. I couldn't wait to get back to work, scribbled her a note, dropped it in the mail, forgot about it and then years later in her book is the note I wrote her. "A vision of a champion is someone who bends over, drenched in sweat, at the point of exhaustion, when no one else is watching." And I didn't know she'd even gotten it, and all of the sudden it's in her book? Obviously it meant something to her, well *that's* what you do with women. At every opportunity.

I was just in Dallas yesterday. Stacy takes me over to her house and she shows me - she played for me for four years and was one of the great success stories in our program - her scrapbook. And in the scrapbook is every note I wrote her. And I'm reading these notes and I'm going "oh my gosh, oh my gosh." And so the way you lead women is with your humanity. At every opportunity in very personal ways, you let them know you care about them, and also you let them know that they are remarkable...the best way to share with them they are remarkable, actually, if you can find a reason outside the game that's more powerful.

Women aren't as driven by their athletic success as their personal success. So if you think they're a great human being, that's what you highlight even more than an athletic achievement. "The way you treat your teammates, I came out one day and there you were, you're helping the managers set up practice. I mean, that's class. You are obviously a classy human being." Any chance you can to let them know you think they are great people, that's going to have an even more immeasurable connection with them, more powerful than anything that you can find about them athletically.

John Silva – End Note

With the infusion of young women and adult women into not only athletics, but into every facet of competition in society it appears that the gap between how men and women

process competitive and achievement oriented situations continues to evolve. I envision that it will continue to change and the socialization of men and women will provide both genders with the opportunity to compete in any environment.

Reference:

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Mental Strategies of Professional Actors.

Tim Murphy and Terry Orlick, Canada

Tim Murphy is recently completed his Masters Degree on professional actors under the supervision of Terry Orlick. Tim currently resides in North Bay, Ontario and is finally studying theatre, at Canadore College. Upon completion, he plans on teaching internationally and eventually settling down to a life of teaching and acting. Tim would like to thank Terry and all the actors involved in this study.

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Abstract

The understanding and application of sport psychology principles have moved beyond sport to many other high performance domains. For example, Talbot-Honeck & Orlick, (1998) studied psychological performance enhancement strategies used by some of the world's top classical musicians. An extensive review of the literature revealed that no research has explored the mental strategies used by professional stage and film actors. The purpose of this research was to begin to explore and better understand the mental strategies used by professional actors. Twelve professional actors from Canada and the United States were interviewed using a semi-structured open-ended interview guide. Inductive analysis revealed that these actors gained from seven key mental strategies: character preparation, focus while performing, pre-performance routines, imagery, confidence, optimal energy level, and performance evaluation. These elements of excellence are discussed using specific examples of application cited by professional actors.

Imagine that it is the opening night of a play in New York City. A young lead actor takes his or her place on center stage on Broadway for the first time. In the crowd are newspaper critics, talent agents, family, and friends. This is the most important night of his or her young career. How did the actor mentally prepare for this moment, this performance? Where is his focus as he steps on stage? What is running through his or her head? How does she deal with potentially negative thoughts or distractions? What does he or

she need to focus on to have a best performance?

Over the past twenty five years, leading applied sport psychology researchers have addressed these questions with Olympic and Professional athletes (Orlick, 1980; Orlick & Partington, 1988). In more recent years, Orlick and his graduate students at the University of Ottawa took the lead in applying the Sport psychology paradigm to understand excellence in a variety of other

high performance domains (for example, with surgeons, astronauts, top classical musicians and professionals in the corporate workplace).

Literature and research regarding the mental strategies of “performing artists” exists to a very limited extent (e.g., Conroy, Poczwardowski, & Henschen, 2001; Marchant-Haycox & Wilson, 1992; Poczwardowski & Conroy, 2002, Talbot-Honeck & Orlick, 1998). The term “performing artist” usually includes actors, singers, musicians, and dancers. Research of actors regarding their memorization of lines (Noice, 1991; Noice, 1992; Noice & Noice, 1997), the effect of hypnosis on character development (Fowler, 1998), the change in personalities over the course of the production of a play (Hannah, Domino, Hanson, & Hannah, 1994), their experience of flow (Martin & Cutler, 2002), and their experience of stage fright (Steptoe et al., 1995) has been conducted, however, no research has explored the mental strategies used by professional stage and film actors.

The purpose of this research was to explore and understand the mental strategies used by professional North American actors. The general research questions that guided this research were the following: What kind of mental strategies do stage and film actors engage in? What are the specific strategies they employ before, during, and after performances? How effective are these strategies? How do they implement these mental strategies? These research questions allowed us to explore the mental strategies used by professional actors to achieve best performances and to better understand the specifics (when, how, and why) of the use of these strategies before, during, and after performances.

The term “professional” actor in this study meant that the actor being interviewed currently or recently earned a majority of their income through acting. For simplicity of writing, the term “actor” includes both males and females. Twelve (n=12) professional actors from Canada and the United States were interviewed face-to-face using a semi-structured open-ended interview guide. The interviews consisted of a “specific grand tour type question” where the participant walked us through a recent production run that they considered to be one of their best, while the typical grand tour question had them discuss a typical day of a stage and/or film performance (Spradley, 1979).

Results and Findings

Inductive analysis revealed that the actors used seven major mental strategies including: character preparation, focus while performing, pre-performance routines, imagery, optimal energy level, techniques to build confidence, and performance evaluation. These seven major strategies were further separated into ‘Sub Strategies’ and ‘Specific Techniques’ and are summarized below (see Table 1). The specific techniques represent the physical and/or mental actions that the actors engaged in to achieve the higher level strategies or goals.

Character Preparation

Mental and physical preparation has been found to be a source of sport confidence (Vealey, Hayashi, Garner-Holman, & Giacobbi, 1998). Orlick and Partington (1988) found that Olympic athlete’s preparation greatly influenced their mental readiness for an optimal performance. The 12 actors interviewed in this study supported the importance of preparation and the

Mental Strategies of Actors

<i>Major Strategies</i>	<i>Sub Strategy</i>	<i>Specific Technique</i>
Character Preparation	Internal Exploration and Understanding	<ul style="list-style-type: none"> - approach it as an organic process - approach it as their own process - open to exploration - use intuition - relate character to self - fall in love with character
	External Exploration and Understanding	<ul style="list-style-type: none"> - investigate/ask questions - do background research - develop character's history - allow text to inform them about character
		- over preparation
Focus While Performing	Focus On Other Actor(s)	<ul style="list-style-type: none"> - focus on listening (receiving message) - focus on speaking (delivering message) - focus on process in between listening and speaking.
	Focus On the Process of Acting	<ul style="list-style-type: none"> - focus on being in the moment - focus on circumstances of scene - focusing on the character they are portraying - letting go while on stage
	Distraction Control	Distraction control <ul style="list-style-type: none"> - engage in strong character preparation - help fellow actor - deal with distraction immediately - decide to keep going and focus in the moment
Pre-performance Routine	Focus on Becoming Character	<ul style="list-style-type: none"> - focus on costume/make-up - run lines - focus on character's nuances
	Getting Ready to Perform	<ul style="list-style-type: none"> - engage in physical warm-up - relax and be alone - focus on performance - follow the same routine - arrive early - prepare during the day
Imagery		Imagery used: <ul style="list-style-type: none"> - in character preparation - when entering a scene - for technical preparation - other uses
Confidence		Ways of increasing confidence: <ul style="list-style-type: none"> - engage in positive self-talk - act confident - leave confidence on set/stage
Optimal Energy Level		<ul style="list-style-type: none"> - engage in positive self-talk - ask 'Why am I here?'
Performance Evaluation	Process	<ul style="list-style-type: none"> - constant process of assessment - question performance - engage in different methods - deal with critics
		- define purpose for evaluation

findings of Hannah et al. (1994) and Noice (1992) regarding the importance of character exploration and understanding. One of the actors, David, summed up the importance of preparation by saying, “If you are not prepared, you cannot listen and if you are not listening then you cannot invest in the scene.”

In essence, ‘character preparation’ for these actors is best described as a personal process of comprehension and exploration of the character and integration of themselves into the character. The actors used different approaches to explore, to the point where they could best understand their character. Essentially they used both internal/personal methods and external methods.

Internal Exploration and Understanding of Character

All of the actors felt that the internal process of exploring and understanding their character was vitally important for their performance. They each went through their own personalized process of character preparation including: (a) having the process be organic, open and their own; (b) using intuition in making choices; (c) relating to the character; and (d) respecting the character they were portraying.

Their own, ‘organic’ and open process.

Most actors discussed how their best character development came through their own personal exploration and when it was not overly influenced (by the director or by another actor who had played the same character previously). The actors used the terms ‘organic’ and ‘being open’ when discussing the process. Essentially, the actors who referred to it as an organic process described it as a process of finding the character from within. Christine described her struggles during one play, where she felt the director overly influenced her preparation and did

not allow it to be a personal process, she said:

She [the director] kept saying ‘I don't want to see any vulnerability in this character.’ Well of course, when it was reviewed it said I had done a good job with the character but it lacked vulnerability. I felt uncomfortable because I hadn't gone through the exploration. I may have come out at the end and said there is not going to be any vulnerability but if somebody tells you that at the very beginning, what are you exploring? Nothing, you are simply moving through trying to achieve their end but it is not an organic process. So you find it in your own way. The worst thing a director can do is try to push something on you at the beginning, because that is going to cloud everything.

Other actors discussed this idea of having a process that was either open, organic or their own:

It does require openness. It does require an understanding that there will be epiphanies, like punches in the stomach or to your head. Surprises...but there will have been and I will be ready when they are, that is the only preparation I think you need. (Stan)

There is sometimes a bit of a trap of watching the movie, in watching somebody else's performance because if you watch it too much you can get locked in to trying to copy that. And that won't really help you find your way to it. You always have to find the character within yourself. (Sheila)

Be open. That is probably the best advice I can give to anyone - to be open to possibilities. Be open to the 360° of interpretation, of the analysis, of inter personal relationships. Pay attention to what is going on. (Sheila)

It is doing a little homework, but not having so many preconceptions. I mean, you can have some but really allowing the process to be more organic. (Daniel)

Use of intuition in making choices.

Preparation involves a personal open minded (yet not overly influenced) exploration and understanding. But how do the actors make specific choices about their character? All 12 actors interviewed either had difficulty describing this or attributed it to various subconscious terms, of which some called “intuition”. The actors found that the choices they made about their character (i.e. how to say a line, how to enter the stage) came to them freely and they went with whichever one felt best. This use of intuition was imperative for the actors to have what some of them called an ‘organic process’ in character preparation. The actors’ best production runs came when they trusted their intuition in the character choices they made.

To be good is to understand the meaning of what you are saying or doing. If it rings true in your own mind, call it intuition...call it what ever you want, your own intelligence will tell you if it is true or not. Once you have discovered without question, the meaning of the line and delivered it enough times that it resonates correctly to your ear, then you are there. And you can't make it any better. That gives you that little bit of an extra jolt of adrenaline or emo-

tional energy where you deliver that line, whether it is loud or quietly, but just that much more conviction. And in that conviction is the line. At that moment when you were doing it, you know you are doing it right. (Stan)

You know, a lot of what I try to do is...I don't even know how to describe it, which is not helpful to you. It is like how you are going to use your personal process, how you're going to be open to that and to what is happening in that. Both in what you are bringing to it and what the other people are bringing in. I don't know, it is hard to explain. I guess the reason it is hard to explain is because it is not an entirely cognitive process. (Cathy)

To me, for the most part it is really an unconscious effort that I make in terms of acting. I know what I need to do and I just do it. I don't know what I would call it, instinct maybe, and common sense. It sounds metaphorical or something, but as it comes into me, as I start to find the voice, the posture, and the emotional life of the character, then it starts to take over. It starts to become something other than I thought it would be when I started. (Sheila)

Relating to the character.

In terms of exploring and understanding their character, some actors explicitly discussed how they would relate their character to themselves. They found this was an easy and realistic way of understanding the person they were portraying. The actors described it as relating the character to themselves or to relating to certain situations/emotions.

The only hands that can make it better are the mental hands that speak to comprehension, understanding, and profound feeling. If you want to describe it in a breakthrough way, we all understand certain things from the neck up, intellectually. But to render it as though it is coming from your heart, your guts, your heart, your soul - that is different. And what is that difference? Well, maybe, you have to experience it. (Stan)

Fortunately, I was playing an old cop, retiring, really run down tired beat up guy. And there is no subtlety of it. Most of it was me. (Ben)

And I have to be just enjoying it, watching this person die. And that is where you kind of transpose situations. That is not like me, I'm not evil. But there are aspects of one person's personality that one can access. It is all about pretending. (Lyle)

Respecting the character.

Lastly, in terms of internal preparation, some actors noted how they thought it was essential to enjoy and respect the character they were playing. Stan gave an example of the famous actor Lawrence Olivier who called it 'falling in love with your character'. Even if they did not fall in love with their character, these actors noted that it was at the very least imperative to appreciate their character and to not negatively judge them. In the absence of appreciation, they found they could not fully embrace the character and thus never be fully comfortable with the person they were acting. These actors felt they had to explore and understand their character enough to come to a point where they found their character was valid and could be loved.

So that is a vital element too - to love, embrace or feel that the character has validity. (Stan)

For this character it is about finding the whimsy and the joy of him. (Michael)

I think you should like your character. And really know what is going on in the character's head. It gives you all sorts of motivation and subtext that you might not have otherwise. (Tara)

External Exploring and Understanding of the Character

The second area of character preparation was through external exploring and understanding, including: (a) investigation of their character and their character's motives, (b) background research on the character or time period, (c) creating a character history, and (d) allowing the script to inform their exploration.

Investigating and asking questions.

Most actors noted that in preparing for their character they would ask themselves questions revolving around who, what, where, when, why, and how in terms of the character and their motives. The actors discussed different ways of doing this. Essentially they were asking as many relevant questions as they could about their character to further explore and understand the person they were portraying. The following quotes illustrate their investigative approach:

It is all about investigative work. Why is the character not walking off and going on with their lives? What keeps them in the story? What do they want ultimately? So it is called their spine - their main objective.

Every little moment in the play is like their vertebra, so many small and short term goals that are ultimately leading to one thing. (Lyle)

I did a movie where my role was a bank guard and within the first few minutes I get shot and died. I thought 'That is really cool. I could just be in the moment. I can be the best bank guard I can be.' What does a bank guard do when he is closing up at night? How does he feel? How does he walk? How does he handle his keys? How does he talk to people when he is in the bank? (Ben)

I think the challenge of good acting is to continue to feed into different parts of the character. Meaning, you sort of get something about somebody, but to keep going. (Cathy)

Background research.

Another method that some of the actors used to explore and understand their character was research about the person/type of character they were playing or the time period/event the story took place during. Some actors, including Ben, Lyle, and Michael emphasized this more while others, such as Cathy and David said that they did not need to do such research because the text usually informed them enough. Thus, the choice to do background research was a personal one. Ben, for instance, went so far as to track down a historical Canadian figure he was portraying and interviewed him. When asked if that helped his performance, he responded, "It textures and colors it. It gives me the back story and the subtext of it. I had a sense of how I related." Much of the actors' background research was through reading, use of the internet and watching films.

My hardest work happens in the first and second week of rehearsal. That is when I work the hardest because I'm scrambling, I'm always thinking about it, I'm constantly taking notes, watching stuff, researching, after the rehearsal going to the library or a video store getting old documentary on World War I, or going to the library and getting a book. (Lyle)

If it has a historical background in terms of Shakespeare, like the Richards and the Henry's, I look at who the actual true character was in terms of historical truth, that might not always be in terms of the playing of it, but it certainly helps. (Henry)

Creating a character history and using the text to inform the actor.

Similar to background research, some actors also enjoyed creating a 'character history'. Often plays and film scripts do not offer information about the character prior to when the story began. Thus actors like to create a first meeting with a love interest or the first time they met a good friend, often times the actors used imagery and imagination to create this history. For this reason, this type of character preparation will be discussed in the imagery section.

Some actors emphasized how reading the text over and over gave them insight into their character. The more the actors felt they understood the text, the further they felt they understood their character.

Generally if you read the text over and over again, and read it out loud, the character will begin to surface, to take some kind of control. The text will take you there. I'm talking now about well written scripts. You will begin to discover things about the

character and what other characters say about the character and how that character responds to other characters. You may find the voice. (Christine)

Part of the preparation is really reading the script over and over, looking for cues. It is almost like a puzzle. A good play is like that. And every day, you discover...it is like, where is Waldo. Every day you discover another Waldo, it is like being an investigator. (Sheila)

Over Preparation

As with athletes who over train, there is the possibility of actors over preparing or over researching. Some actors noted that finding a balance in preparation was essential to a good performance and over preparing did not make the performance feel like their own.

There is a danger in over preparing and overanalyzing, as you start to play your research and not be the guy. My advice to people, do all that work, but leave it somewhere else. Don't try to play it. Don't try to be the guy that grew up in the ghetto and pulled himself out by the bootstraps, just play the guy. Just be there. (Ben)

So that is always that strange tight rope that you are walking of preparation, of homework, of work, and then letting the work go. Because the minute you try to make it happen, nothing happens. It is like saying, I am going to fall in love this week, you know? (Sheila)

Focus While Performing

Focus is where one becomes totally immersed in the moment and the performer and performance become one (Orlick, 2000). David noted, “As an actor you are only remembered for what happens after ‘Action!’”, thus the focus an actor has while performing in front of the camera or on stage is vitally important to their success. The importance of focus was discussed by every actor. Optimal focus on set/stage occurred for the actors when they focused on one or both of the following – on the other actor(s) or on the process of acting. These two areas are discussed in further detail below, outlining the specific focusing strategies and techniques of the actors.

Focus While Performing – On Other Actor

Each actor noted optimal focus while performing occurred when they focused on the other actor(s) they were interacting with on set/stage. Ben summed it up clearly by saying, “The focus that works in any scene, unless you are in it alone, and even then there might be some unseen person there that you are dealing with, is on the other person.” He noted that this made the experience more real for him because he was able to focus on what the other person was going through and then his “emotion will be exactly what it is supposed to be”.

I think it has to do with focusing, in a funny way, on the other characters in the play or movie. (Cathy)

The emphasis is on the opponent or the scene partner. And so any time you are being really successful in Shakespeare it is because you're putting all of your emphasis on your arguments and the scene partner. (Michael)

I think your focus has to be very much on the other actors. (Christine)

So I guess your focus should be on the other character or characters out there. (Tara)

If I felt myself becoming stale, the way to get back in was to always re-connect with the other person on stage. (Gary)

The best performances are also where you are most connected to the other actors. (Sheila)

The actors discussed three methods of specifically focusing on the other actor(s) – (a) focus on listening (receiving message); (b) focus on speaking (delivering message); and (c) the combination of both (the process in between).

Focus on listening (receiving message from other actor).

Several actors specifically discussed listening as the key to focusing on the other actor(s) and to making their performances feel as real as possible. David noted “I have to be talking to you and I need to be listening to what you are saying in order to stay with that conversation.” When asked how important listening was to him in the scene he replied “Completely. That is acting”. The following are quotes that highlight the importance of listening when performing:

The big key, and that is the word, is listening. They always say acting is reacting and acting is listening. To really listen to what is being said to you is what makes it improvisational every night and makes it alive and real. You really play the scene and have that interaction – new things happen. (Sheila)

Listening forces you to be very attentive and that is what gives good acting. (Lyle)

The most important thing to do is to listen to what the other person is telling you. (Michael)

Listening is terrifically important because somebody is going to give you something different every night. (Christine)

Focus on communicating (delivering message).

Another component of focusing is communicating a message. While most actors defined acting as listening, Gary, Cathy and Sheila also emphasized the importance of ‘telling the story’ or communicating to the other actor. Gary noted:

Entirely, it is all about, what you are trying to convey to the other person. That is really Acting 101. Why is it urgent that you say what you are trying to say? Why do they need to understand you? It is ‘I want you to hear what I have to say, because I need something from you’...the focus is conveying information through the filter of the character that I'm playing. Whatever it is that makes it for that character to express themselves in this urgent way to one particular person.

Process in between listening and speaking.

Some actors focused on the connection between listening and communicating. For Gary, Henry, and Tara it was important to focus on the “in-between” moments, the cognitive process where they were making a connection between what they heard and what they wanted to say.

Somebody will say something which spurs an idea, there is a connection between what they say and what you will say – a train of logic. Sometimes I would have inspiration on the spot, but often times I would have to literally think about it and really work it out. I had to create the bridge between somebody else's dialogue and my response. So why I was saying what I was saying made sense. (Gary)

You have to be able to listen and react accordingly, otherwise you are not going to be in the same play, and you're not going to be on the same page. (Henry)

You are listening to them and then hopefully, if you react in accordance to what ever they said or did, you will be doing what is correct for the piece and for the character. (Tara)

Focus While Performing – On the Process of Acting

Actors also mentioned that their focus was on the ‘process of acting’. They felt it was linked to believing in and connecting to what they were portraying – essentially making it feel real. David spoke of 14 months where he experienced extreme anxiety when performing which often included getting the ‘shakes’ in his hands and legs. He spent time reflecting on why this was happening. One day he realized where the problem was. He stated:

It became so painfully obvious to me – if I would just believe in what I'm doing. Because as kids we were always taught that acting is just believing. It's true, in its simplest form that is exactly what it is.

David’s anxiety subsided and his performance improved when he focused on believing in what he was doing. Henry also discussed this notion of believing. He said that when entering a scene he pretends that it is the first time it is happening. When asked how he does that he replied, “It is just a matter of believing it in your own mind.” As film actors,

Lyle and Ben emphasized focusing on the process and not the outcome. Film actors have no influence on the outcome or final product that viewers will see because several camera shots of the same scene are taken. The final decisions are made by the director and editor. Lyle stated, “It is all about the process, so as I am getting more experienced I'm learning about how the process is so much more important than the results”. Ben discussed this theme as well, he said, “I never focus on the product, I don't care what they do with the performance after I am done with it because I can't influence it.”

The theme of ‘focusing on the process’ includes four areas of focus – (a) on being in the moment; (b) on letting go/being open; (c) on the circumstances of the scene; or (d) on the character they were portraying.

Focus on being in the moment of the performance.

Some actors discussed their approach to focusing on the process of acting as simply focusing on being in the moment while they performed:

I think there is a degree of being there. Actors talk about being in the moment and all that - it is being present. You allow yourself to be there, with everything you have. You are not holding back some other thoughts that you are having about something else. If you allow yourself

to be completely present, you will be impacted. (Cathy)

It is making your response to them, either more vivid or more real. You are literally...being in the moment. It is clear to me what that means, it means you are listening to everybody else. It is as though you are doing this scene for the first time, and you are waiting to hear it differently. (Stan)

'Letting go' and being open while performing.

Some actors spoke of trying to 'let go' or 'be open' to what was happening on set/stage while they were performing. They felt this type of focus helped them give a more realistic performance.

One of my teachers told me, the train is going to leave the station. It is going to happen, so you have to get on that train, and once you get on the train, you just let go. You sit down and it goes for itself. That is what you want; you don't want to have to labor. You don't want to have to drive the train; the train drives you once you get on it. And once you get on it, you just let go and it takes care of itself. So once the scene starts, you just sort of sit back and relax and enjoy the ride. (Henry)

If another way of saying free is to be open, not blinkered, that is vital. What you have got to be is absolutely open to everything. Not just so much for the thrill of the surprises, but somebody is going to give you a line one night that you will hear and know is different. (Stan)

Focus on circumstance of scene.

Some actors noted that they focused either on the task or the circumstance of the scene. David said, "The focus on the task at hand is almost a distraction from the technical things going on around you". The following are short quotes from various actors describing how they focus on the circumstances of the scene:

Focusing on what the task is for each scene. (Tara)

Just focusing on the activity of whatever you are doing on stage. (Gary)

Invest in the circumstances of the scene, put yourself in those circumstances. (Sheila)

Focus on the clarity and the focus of what you are doing at that moment. (Daniel)

Focus on their character.

Some actors noted that during their stage performances they focused on who the character was that they were playing. They focused on being exactly who they were and how they should act, which helped them make their performance more real.

If you are doing, for instance, something like a Queen, you have to be focused all the time on who you are and on your son or daughter...because you are an intense person and you have to find that emotion, so that is where your focus is. (Christine)

While I was engrossed in the activity of playing this person it felt effortless and fun. (Gary)

Distraction Control

Orlick (2000) defines distractions as internal thoughts or external circumstances that pull someone out of their best focus. This following section briefly discusses various distractions the actors faced and the various distraction control techniques they used, including preparation, helping other actors and focusing in the moment. The major distraction for actors in this study were negative self-talk and focusing on evaluating themselves instead of focusing on the process of acting.

If you focus on yourself, you are focusing on the wrong part of the scene. (Ben)

In poor performances Sheila commented that, “The self-conscious part takes over and you start second guessing yourself”. (Sheila)

I think I tend to ‘watch’ myself too much, which can take me out of the moment. (Tara)

Gary noted a sort of ‘out-of-body’ experience where he would be beside himself, critically analyzing himself.

I’ve literally had moments, particularly in long runs where it is almost like I’m next to myself, nudging myself saying ‘Do you know it, do you know it?’ I literally have to tell myself in the back of my head ‘Shut up, just open your mouth!’ It is almost like a metaphorical closing your eyes and falling back and knowing you will catch yourself. Too much of performance is based on fear of failure which is self fulfilling and distracting. It is what prevents people from doing good work. (Gary)

Actors also experienced external distractions such as their scene partner not knowing their lines, people in the audience talking, and film set distractions (camera and boom mic). The actors talked about different techniques to control distractions and refocus, including: the importance of preparation, helping the other actor, immediately dealing with the distraction and focusing on the moment.

Importance of preparation.

The most important distraction control technique for the actors in this study was being well-prepared, specifically in terms of understanding their character and knowing their lines.

You would be amazed. If you do the preparation, if you know everything you need to know about your character and the situation you can paraphrase even with Shakespeare. You know what you need to say and what you want from the other person, whether it comes out the same or whether it is not exactly the same words. (Henry)

You have to know your lines so well, because there are endless distractions as well, they will pick up in the middle of the scene so you have to pick up your line right where you left off. (Ben)

Helping their fellow actor.

In the case of a scene partner not knowing their lines, two actors used the technique of supporting their fellow actor to help them remember their lines. David noted:

You try to step up and help the actor without stepping on their toes and you try to stay focused within yourself to make sure that they are not

*having a negative impact on you.
(David)*

Another actor discussed a similar strategy when they faced with the same situation. They said, “I just decided to be unbelievably giving and supportive to him. I would just be there for him whenever and however he needed.” The actor decided to be positive in the face of distraction and to support their acting partner.

Immediately dealing with distraction.

Some actors spoke of removing external distractions. For example, on a film set Ben stopped and asked the Assistant Director to move an external object that was distracting him. Henry spoke of stopping to fix a chain watch that kept coming out of its buttonhole during a performance.

I feel like, if it comes out of the buttonhole, everybody can see it and most of the time they probably don't, but it makes a difference. I find I have to fix it immediately. Otherwise it totally throws me off. Little things can throw you off very easily...it is best to get rid of it as soon you can.

Deciding to keep going and focusing in the moment.

Other techniques used by actors to refocus included deciding to keep going and focusing in the moment.

When I did this play, this guy stood up in the audience and he fainted. It was a really small theater and I could see everybody. It was like, 'Okay I guess I'm just going to keep on going'. He was being attended to, and at that point I said, 'You know what...you keep doing this until someone says stop doing it.' (Cathy)

In a funny way, I made a decision that I wasn't going to pay attention to any of the distractions on a film set. It was only after I did a take that somebody would say 'We have got to do it again, because you were not in the whole shot'. I didn't even know where the camera was. I made the decision that I didn't even know it was a close-up or if I was in the shot, I didn't care, I was just going to do the job. (Cathy)

I'm a very good improviser and I've gotten a lot better in the past couple of years, in dealing with that. I think if you're really in the moment of the play, you have to deal with what happens. (Daniel)

Pre-performance Routine

The actors also discussed their routines and approaches prior to performing. They essentially discussed two sub-strategies, first their focus shifted towards becoming their character and secondly their routine generally readied them physically and mentally to perform. As well, the issue of ‘keeping character’ was discussed regarding some actors’ film experiences.

Pre-performance Routine - Focus on Becoming the Character

The actors did not feel they could fully become their character until they had done the character preparation needed, but once that was in place, they used three main techniques to focus themselves on becoming the character prior to performing, including: (a) focusing on their costume and make-up; (b) running lines; and (c) focusing on their character’s nuances.

Focus on character's costume and make-up.

In discussing when the actors “become the character” during the time before a performance, after character preparation, actors discussed their costume and make-up as being the most important:

The makeup artist thought that she was a little bit daffy so he did some eyeliner that made my eyes look just a little bit off. It helped, it wasn't really caricature, or crazy like a lunatic, but it was something to make me look/be/feel less smart. Look/be/feel that is an interesting transition. But again, the outside in. There's something about looking at myself with the eye-brows...everything that just made her in that period of the forties and not too together. And the hair, sort of flat and up on the side, very forties. The whole putting on of the stuff is what puts you there. (Sheila)

When you come into the dressing room you are you and then you start to become whoever it is. Obviously, you are always you... but I sit down at the mirror and I put myself in the mindset of the character. I am gradually becoming that character for the hours ahead. I am always me, knowing that I am doing that. But I really try to immerse myself in who I am going to be in the next however many hours...what epitomized that character to me was that I wore bright red nail polish and lipstick that looked very kind of period. Doing my nails and putting on that lipstick was where I really became her. It gave me that character. (Tara)

On the other hand, Gary noted how he did not really have to become his character because it was always there with him:

There was no building myself into it every night and I know there are some actors who do that. But I did not have to do that. I knew him well enough. He was just there. That was one of the things that were so enjoyable about it. I didn't have to work myself up into some sort of frenzy. He came naturally. (Gary)

Running lines.

The actors also discussed running lines prior to performing. The following quotes highlight the use of this technique by the actors to focus on becoming their character:

I always read through the whole script in that hour before the show. I read through my lines from top to bottom and mentally went through everything. Usually at the end I would go back and do the first scene again. My mind is empty, it is zero. That is all I really want in it - the journey of the play. Then I go back to the beginning again, because the beginning is really all I should have in my active memory, because I don't know what is going to happen in the play theoretically. (Daniel)

Waiting to go on the set...it is the lines, completely. I will run my lines. I will sit down and just write out my lines the way I have memorized them. I will write them out and say them out loud so that again I am using so many different senses. I am writing it down, so physically I am involved in touching the words, I am hearing it, I'm saying it, and I'm seeing it – so then hopefully it be-

comes very natural. So that is my biggest focus. (David)

Focus on character's physical nuances.

Although actors spoke about a general focus on their character, Henry spoke directly about focusing on specific character nuances. For one play, he would begin speaking in his English accent when he was in his dressing room.

So even if I am backstage, it sounds pretentious, I speak to them in my accent because I don't want it to be forced. If I can get my muscle memory working the minute that I walk in there – the sooner I can start the better because I don't feel it is forced. I feel I can walk on stage and I am relaxed. (Henry)

Henry also discussed how he would attempt to enter the world of the character he was playing by sitting and posturing himself as his character would.

Pre-performance Routine – Readiness to Perform

The actors' pre-performance routine readied them physically and mentally to perform. Strategies and techniques included: (a) a physical and vocal warm-up; (b) relaxing and being along; (c) general focus on upcoming performance; (d) following the same routine; (e) time of arrival; and (f) preparation during the day.

Engaging in a physical and/or vocal warm-up.

Most actors would use their warm-up prior to performance to relax and to 'clear their mind'. Michael discussed how important it was for him to forget about his life, friends, and family. He said, "You have to shut that out, because the audience does not want to

know about that." He would attempt to clear the 'life stuff' from his mind during his physical warm-up as did others.

At the same time it relaxes you. It is about the nervous energy too and getting calm. So I do that for about a half-hour before anything else. It is basically time to shut out the world. I start lying on the floor and concentrate on breathing for a while, that shuts out...if I've had a fight with my girlfriend or something has happened in my day. (Michael)

In a way what you want to do is say, 'I am starting a new thing now.' And I personally find, for me, that physical warm-up helps to do that. It just changes the dynamic of what you are doing. (Cathy)

Focusing on upcoming performance.

Similar to the purpose of Michael and Cathy's warm-up, to shut out the outside world, other actors spoke of how they mentally focused on their performance. Daniel used a mantra before every performance.

I would lie on the floor and say, 'Let it go now, let it go now, let everything go now, let everything go. There is no place else, you can be, there's nothing else you can be doing, just think about the show, and have a good time.' It is very simple, but it is very freeing.

Stan's technique was one of emptying his mind.

If you would like me to say how I get there all I can say is, that it is a process of me eliminating, getting rid of, and stripping down – so there is nothing on my mind. Now how do I

do it? I have no ritual for doing that, simply over the years that is what I have done for myself.

Henry described his focus as being open for his performance and related it to a football player's stance:

When you see an athlete, there is a way to stand in terms of a football player when they are on the line. They are standing in a certain way so that they can go in any direction at any time. I think as an actor we have to do that mentally. I have to prepare myself that way backstage, so I can go in any direction.

Gary said that once he knew his character very well, he did not feel a need to get ready, because his character was always there.

In terms of preparation, I really didn't think about that character. I mean, I really just thought about technical things, there really is a sense (and this I've always marveled at) when you know a character well, that it is just a matter of threshold. The threshold, when you walk through the door on to the stage, you are instantly in character.

Relaxing and being alone.

Apart from warming up as a form of relaxation, some actors also found it relaxing to find isolation before a show. Michael found it relaxing to go off on his own to prepare prior to going on stage. Lyle relaxed alone in the few minutes before going on stage. To become self aware, he said: "I would ask myself, 'What am I like today? What was my day like today?' I ask myself, because that is important. You have to always be aware of yourself". The actors also liked to

do small things to be alone by themselves and to stay busy. Daniel worked on cross-words, Lyle played on his PocketPC, and Gary played Solitaire. Gary said "I would have a cup of tea and just be very restful. Sometimes I would play solitaire. I would have a deck of cards, and I would just do something to clear my mind."

Focus In Between Performances – Keeping Character

The idea of "keeping a character" surfaced in some interviews where actors discussed film experiences. The need for film actors to 'keep their character' arises due to their work schedule. As discussed before, they may have 10-16 hour days where they could be required to act for a few minutes or several hours with long breaks in between. The schedule is not always set or predictable. Most often they never know exactly when they may be called to set. Cathy discussed this topic thoroughly. For her it was important to be as involved in the filming process as she could. If her scene partner was doing a scene where only he/she was on camera and Cathy was off camera, she would be given the option of reading the lines or taking a break. Cathy would always read her lines to her scene partner. She did this for two reasons. First it kept her focused on her character and secondly it made the scene more realistic for her scene partner.

I didn't feel the need to stay completely in character the whole time, but I didn't feel like I could ever let go of her throughout the day because that was what it took to be that concentrated...it is like staying in your place. (Cathy)

David and Christine also discussed the importance of reading with their scene partner when they were off-camera.

Another challenge for film actors in terms of keeping their character was when they were on camera. Their scene may be shot once but then time is taken to adjust the lights and cameras to re-shoot the scene – resulting in delays. Cathy noted during these instances, it was important for her to ‘keep’ her character nearby.

It is like this stillness. It is like you try to keep it. Partly what I had to do was stay very quiet and acknowledge what was happening. ‘Oh, I am feeling upset, from this scene before, which I’m now going to do again, everybody is ignoring me, that kind of makes me feel upset. Which is good, I’m glad that is helping, that will help me to do this again.’ And then you are also being self-reflective. ‘Oh, I liked that last take. It was more hysterical, and I think that is right. Okay, take a note of that.’ You are just waiting for somebody to say action, and then you do it again.

Cathy used self-talk and acknowledgement of the situation she was in, during these minutes of waiting to shoot the scene again.

Imagery

Imagery is defined by Vealey and Greenleaf (2001) as “using all the senses to re-create or create an experience in the mind” (p.248). Actors used the terms imagery and imagination interchangeably. Imagery was employed by the actors at different times and in different contexts related to their performance: (a) for character preparation, (b) in the few seconds/minutes before entering a scene, (c) for technical preparation, and (d) other uses.

Used In Preparation

Some actors created a character history or background that prepared them for their

role. Most of these actors used imagery to create this background story about their character. For example, they would create and imagine their first meeting with their lover, a first kiss, or an important conversation with another character to build this ‘history’ of their character. This creation would either be done through imagery or would be physically acted out, or both. Once this initial creation was made, they would constantly use imagery to recall this creation. Henry and Tara each used imagery to further their character’s history and enhance and fine tune their preparation. Henry used imagery extensively to create a character history in one production. He described his use of imagery as “memories” that he had created with another female character.

As an actor, you have to be able to not only look at stuff on the surface, but look at the things that are underneath. So I was trying to tap into things that were underneath. That is how I use the memories, just to tap into that.

In this particular play, Henry played a man who was returning to see a woman he once proposed to. Henry and his female co-actor decided to recreate this marriage proposal during rehearsal because it was not in the script. Henry then used imagery to recreate this marriage proposal in his mind every night he was on stage with her. This imagery gave Henry a character background that he used in developing his character and when he was performing on stage. Tara also used imagery to deepen her character preparation.

For my own personal preparation, I guess I build stories, a history, an autobiography about my character because if somebody asked me something about the life that she led before this time on stage, I think I

would be able to have a pretty good answer because I think I should know. I am that person, so I should be able to tell you that stuff. I don't write it all down, I just imagine in my head how she grew up, and how many brothers and sisters she had and all of that kind of autobiographical information.

Imagery also helped actors in developing a mental picture of how their character moved, and spoke. Gary found that he used imagery to find not only the movement of his character but also the voice of his character, thus he used both audio and visual imagery.

And some of the sources (of this character imagery) I can't even tell you. I can't tell you why I heard Jerry's voice, the way he talked, or the way he moved. Some of it was just images, sort of bear like, sort of hunched shoulders and predatory but lumbering.

Used When Entering a Scene

In addition to using imagery for overall preparation, imagery was most often used by actors to direct their focus when entering a scene. Actors would imagine where they were coming from and the events that led them to enter the scene. This imagery was used for two reasons. First, it put the actor in the context of the play and made them more focused on listening. Secondly, it gave them the urgency to communicate the circumstances that brought them into the scene. Henry gave a vivid example of this use of imagery. He engaged in imagery while he was backstage during Scene 2 of an act. He was on stage for Scene 1 and it ended with him and others going off to a battle. He then was offstage for Scene 2 and returned to the stage after the battle had finished for Scene

3. The battle was discussed on stage during Scene 2, but never took place in front of the audience. The following quote demonstrates how during every show he would re-enact and imagine the battle that took place when he was backstage during Scene 2:

So you have to sort of put yourself in that situation. Backstage there was this one part where I went through the same thing every night. I physically and mentally went through what happened in the battle. I was backstage sort of in my own slow motion, going through with thrusts and cuts that I would do in battle. It was during the show, just before the scene where we found out our dad was dead. I would do that every show.

Henry used this extensive imagery to re-create the battle that had transpired. He used this technique to make his entrance for Scene 3 as realistic and as urgent as possible. Henry also used imagery before entering the scene mentioned earlier, when he was seeing a woman he had proposed to years before. He replayed the moment in his head each night he entered the scene where he saw her again.

So I almost play that little movie in my mind of what that was and remembering it. It is kind of neat. When I'm standing in the doorway backstage, there is sort of a mental preparation that I go through as the character. I kind of think about where I've been, where I am now, and where I'm going in terms of what I want.

Daniel noted that for one play where he was a doctor, in the minutes before the play be-

gan, he often imagined himself walking through the hallways of the hospital.

I would stand there with my eyes closed and I would visualize myself going through the hospital. Again, a lot of it is almost catching what ever the flavor of the pace and the world is. Yeah, that's what it is... it is capturing that because when you come on, the first few seconds are incredibly important, the audience sort of takes a picture of it. The first image is a big deal. (Daniel)

He used imagery to get himself focused on who he was portraying and he believed it allowed him to effectively portray himself as a doctor so the audience would find him realistic. Sheila discussed mentally running through her mind what she was doing before entering a scene.

In the wings, I'm literally going, 'Okay, okay, I am late and I was out with my boyfriend and I was supposed to be running errands, and I have been gone for 12 hours and people are going to be really scared of where I am. Okay so I'm going to make like nothing happened and everything is going to be okay when I knock on the door.' You have to fill yourself up with what is going on. 'What am I doing? I am covering, I lied and I don't want them to know. I just got lost for a few hours.' And then 'Okay, hi everybody!' If I don't do that work coming in, then I'm just going to come in and say 'Hi everybody' and it is going to stink. So you have to invest in the moment before, with every character you play before you enter that scene - What was I doing? Who am I? What is at stake when I enter the room?

Optimal energy level to Perform

Multiple definitions of 'optimal energy level' exist including optimal arousal, optimal activation, being 'psyched up' and motivated (Zaichowsky & Baltzwell, 2001). The choice to use the term 'energy level' was made to best reflect the language used by the actors. Some of the actors discussed various strategies and techniques they used to attain an optimal energy level to perform. Michael gave an interesting example of how he creates positive energy when performing. He used an expression from his father, called 'Flying his butterflies in circles'.

Basically, it is about focusing that nervous energy so it is not all over the place, it is exactly where you want to go. It is to take advantage of that energy and to use that to create that explosion of energy.

Lyle's approach was much more geared towards self-talk to manage his butterflies that resulted from nervous energy:

I try to reason butterflies through re-assuring myself that I'm a good person and that I've done what I was supposed to do. Of course if I've been slacking, then I get more butterflies that are harder to control. I alleviate pressure by saying, 'You did what you could do. You did everything you should be doing for this.' So you have given yourself the best chance of succeeding, and if you don't, you have to recognize so many external factors that you have no control over. (Lyle)

Tara responded commented on how closely related optimal energy level and preparation were.

If “optimal energy level” means “being in the zone where you perform best” then it sounds like preparation to me. Getting to that place is what preparation is about.

David, Michael, and Cathy also discussed the use of self-talk for attaining an optimal energy level prior to a performance. David said that he often reminds himself, “Make it all real. Swing for the fence...this is not a rehearsal anymore. Give it everything you've got.” Others noted the following:

It is to get at that excitement of - you are really going to like this. ‘I have a surprise for you and you are going to love it’. That is the way I am playing the character this year. It is getting that energy and that anticipation into my body and into my fingertips so soon as I come onto the stage, I have got this electricity. (Michael)

I think that is one of the neat things about being an actor. If you are going to perform there is a certain point at which you can feel like crap and you can feel like you look like crap, but you have to say to yourself, ‘I have to do something else and it is I have to give this performance to the people. And I have to want to do that.’ The interesting thing about that is of course by doing that you actually do feel better. (Cathy)

But if I'm on in five minutes then I get myself up and I start pacing around a bit, without getting nervous... and saying, ‘These people came here to see this show, they paid to see this show.’ (Lyle)

Discussion

Overall, the findings of this study support prior sport psychology performance enhancement research with professional athletes and Olympians (e.g., Gould, Eklund, & Jackson, 1992; Orlick & Partington, 1988). The actors' discussion of the importance of character preparation also supports the findings of Hannah et al. (1994) and Noice (1992). The actors in this study used effective preparation strategies, focusing strategies, routines prior to performing, imagery, confidence building activities, strategies to attain optimal energy level, and ongoing performance evaluation. Each member of this unique group of performers drew upon their mental strategies and focusing skills to perform closer to their capacity on a consistent basis.

The process through which actors employed effective mental strategies in their performance domain appeared to be personal. Specific focus points among the actors varied greatly. As one actor noted, there are several ways in approaching acting and each actor thinks their way is the best for them. In the end, what appears to be most important is that each actor finds a focus that works best for him or her (for preparing and performing). If they prepare well and believe in their focus, it will free them to perform their best.

This study has shed light on effective mental strategies for becoming a character and respecting the character (or role) you have been given. The issue of becoming a character is applicable to other performance domains such as singing, dancing, artistic sports, and perhaps even role players on sport or other performance teams. The actors interviewed in this study found that to ‘become’ a character they had to explore and fully understand the person they were portraying. Do dancers fully explore the character their dance is portraying? Do singers

fully explore the character their song is portraying? Is a figure skater's performance impacted by how much they identify with the character they are portraying on the ice? Can musicians, singers, speakers, athletes, and other performers enhance their performance by becoming the character their performance requires for that performance? It is possible that the methods used by the actors in this study could benefit these performers?

The issue of respecting or 'falling in love' with a character may also be applicable to the other performance domains, for example, in the case of national teams assembling players from club teams, or any team assembling for a specific mission. To perform their best as a team and accomplish the bigger mission, several players may have to take on new roles (or perhaps less prolific roles). The actors interviewed in this study felt they could never fully perform to capacity until they embraced their character, identified with that character and found va-

lidity in who that character was. Can performers in other contexts learn to find validity in their new 'roles' in the same way that actors find validity in their roles?

This study provided a preliminary look at how professional actors implement mental strategies to enhance their performance. Their insights may be of value to other professional and amateur actors who are committed to improve the quality and consistency of their performance and enhance their enjoyment in acting. Some the findings may also be relevant to other high performance domains. Clearly, when high performance people in any field, in this case professional actors, share their experiences and focusing strategies related to attaining personal excellence, everyone interested in excelling has something to gain.

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"PERSPECTIVE" - Can Make a Difference!

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Abstract

As we go through sport and life, a good "perspective" can make a big difference! Botterill and Patrick highlight and discuss KEY QUESTIONS about our perspective and focus that have practical implications for health, happiness and performance. The questions discussed allow us to sharpen and improve our perspective, so we have "a clearer mind and an unburdened heart". They are practical, "down-to-earth" questions that help us focus more effectively--in sport and in life. More details and discussion of these ideas is available in the authors recent book "Perspective: The Key to Life" (available from www.mcnallyrobinson.com). The authors look forward to your feedback on these questions and their value. ENJOY sharpening your "perspective".

Who has "perspective"?

Most of the people we admire have "*perspective*". They are grateful, they have poise, they can see the big picture, they can focus, they can relate, they have natural energy, and they have *character*! They are able to live their life in a "*want to*" vs "*have to*" way, and optimize their health, happiness and performance. They are usually humble and love what they are doing. For them life is much more "*privilege*" than "*responsibility*". Start observing people who have "*perspective*"--there is lots for us to learn!

What are the "core components" of perspective?

Dr. Matt Brown did in-depth interviews with Canada's top "*character*" athletes. A profile of "*foundational*" elements of "*perspective*" emerged. The exciting thing is that these "*core components*" can be worked on in very *practical* ways. Ironically, many of us neglect these "core components", and wonder why we don't have perspective or why our perspective deteriorates!

Identity--People with perspective "*know who they are*"! They know there are several dimensions and attributes to "who they are", and they have a high level of "*self-acceptance*". In today's busy world it is easy to get pulled a thousand ways, and lose sight of "*what really matters*" about us. *Self-assessment* exercises are a great start.

Support--We can all benefit from knowing "*where our real friends are*". In today's busy world, it is easy to end up with lots of colleagues, but no real friends. Real friends are always "*unconditionally*" there for you! Nurturing a few "*real*" sources of support can be a big help in maintaining a healthy perspective. It can help you stay *rational* in an *irrational* world.

Values--People with perspective seem to know "*how they want to live and compete*". They know "*what they value*". They have decided what is most important to them. Often family, friends and community have been made a priority. Because they have strong *core values* and priorities, it's often much easier to embrace *higher level values* like "*positive rivalries*", which are an important aspect of a great perspective.

Why are these "core components" so important?

Abraham Maslow had a tremendous insight about human beings and human nature. He observed that if your "*basic needs*" aren't met, it is highly unlikely you will be able to "*actualize*" and realize your potential. If you improve your *perspective*, then you don't have to be a *prisoner* to your basic needs. If you look at yourself and the world in a healthy way, basic needs are either met, or dealt with by your perspective. *Acceptance, success, control and enjoyment* are a consequence of a good "*perspective*". The "*inner peace*" that results produces "*natural energy*" and higher level functioning. Psychological Skills and emotions become much easier to master and manage. Perspective is about "*foundational psychology*"! It's hard to be great without a good *foundation*.

Are you enjoying the "process" of your sport or performance domain, or are you worrying about the "outcomes"?

Young and elite athletes who enjoy the "*process*" of sport have a big advantage over those worrying about the "*outcomes*". To begin with, it's *impossible to fully focus* on the process of performing well, if one is worrying about outcomes. So motivation from within (*intrinsic motivation*) is much more suited to excellence and enjoyment, than motivation for outcomes. Enjoying

sport *for its own sake* is much more likely to produce *excellence and enjoyment* than extrinsic motivation. Advantages of *intrinsic motivation* include:

1. *Better focus on task*
2. *Less tension/pressure*
3. *Better images/thoughts*
4. *Less fluctuation in motivation*

So remember why you started sport (or another performance domain). In all likelihood, it was because it was *fun and* you enjoyed the *process*. If you maintain this focus, you are much more likely to continue until you get good. They say it takes up to 10,000 hours of practice to become a real expert. More importantly you will *perform better and have more fun*.

The best athletes focus on the *process* and let the results take care of themselves. Prior to the gold medal game at the 2002 Olympics and 2004 World Cup of Hockey, Wayne Gretzky reminded Canada's players *"to enjoy the process"*. Many of the top World Cup skiers are so focused on the *process*, that they don't even check results until they have rehearsed an even better run in those circumstances *in their mind*. Now that's focusing on *excellence & the process*. So for *enjoyment and performance*, adjust your motivation *intrinsically* and to the process of doing and enjoying.

Are you striving "to succeed" or "to avoid failure"?

Most of us perform far better when our orientation is *"want to"* vs. *"have to"*. If we have a *"game plan"* that we are busy doing, we are less prone to *"fear of failure"*. And trying to *"avoid failure"* is loaded with the following difficulties:

1. *Negative images*
2. *Tension/fear*
3. *Less effective focus*
4. *Possible "negative fulfilling prophecy"*

Try golfing to *avoid failure!* "Whatever you do, don't hit the ball in the water"! We all know what is likely to happen with that outlook. *"Approaching success"* is much more effective than trying to *"avoid failure"*. So-o-o, deal with your fears EARLY (by preparing your responses and game plan. Then you can ENJOY the challenges of competition. A chinese proverb suggests that:

"CHALLENGE=OPPORTUNITY"!

What a great way to look at things to solve this "avoid failure" tendency. Also if we remember the lesson from the 1st question (Who has Perspective?), it will keep us busy with the "process", rather than becoming fearful of outcomes.

Does being the "underdog", a "contender", or "the favourite" make a difference?

In theory, if we stay focused on the *"process"*, it shouldn't make a big difference whether we are considered *underdog, contender or favourite*. However, because we are human, it is easy for these perceptions to start influencing our perspective. The *underdog* has *nothing to lose*--so they are less prone to *fear-of-failure*. Their main task is just to "believe" they are capable.

When one becomes a *"contender"*, it is easy to begin to feel the beginnings of *"pressure"* (from self and those around you). Ironically, feelings of *pressure* can often increase when you experience *temporary success* in competition. Our fear of *not being able to continue at that level* can often trigger an *avoid*

failure response (tension, too conservative, poor focus--due to outcome concerns). Being *emotionally ready* for temporary swings in scores can help prevent this problem.

Being the "*favourite*" is the toughest! Expectations to succeed can often trigger *irrational feelings of pressure*. Smart performers realize that there are always "*process*" things to be working on. Speedskaters like Catriona Lemay-Doan, & Jeremy Wotherspoon were always focused on *improving their race plan* and execution--despite usually being considered the "*favourite*". This helped them *maintain an effective focus and keep getting better*.

One of the best responses to "*pressure*" we ever heard came from former NBA star Magic Johnson. His comment was "*What pressure, I'm glad they are interested!*"! He's right--*pressure is a perception*--AND if you have a great "*perspective*", it doesn't have to be an issue. Enjoy sport, enjoy opportunities and challenges, and it won't matter whether you are *underdog, contender, or favourite*.

Do you "rehearse" strategies, execution and feelings for every competition?

Every good performer spends some time mentally (and emotionally) *rehearsing their game plan*. Mental rehearsal prepares our body for action and produces a feeling of *readiness and confidence*. It's not possible to *rehearse* everything that will happen in competition, but it's extremely valuable to *rehearse* the main elements of one's game plan.

It's a good idea to do your rehearsal EARLY on competition day, so you can ENJOY the countdown. *Rehearsing early*, while your mind is clear, often has the most powerful effect. Occasional *spontaneous rehearsal* often happens, but 10-20 minutes of QUALITY preparation can often help you

feel ready and help you ENJOY the count-down to competition.

The main part of this kind of *preparation* is usually going over one's strategies and execution in different situations. Focus on YOUR performance, rather than spending too much time on your opponents. Also rehearse responses to some of the "*feelings*" you may have in competition.

Fear, anger, guilt, embarrassment, surprise, happiness and sadness are common *emotional feelings* in sport. Rehearsing a response to things that will trigger them is a form of "*emotional inoculation*".... When these feelings actually happen, you are much more ready for them and your response is better.

SO REHEARSE--so you are ready for the show.... and ENJOY it more!

Are you "worried about how you look", or "enjoying what you are doing"?

As human beings we are "*socially-conscious*". We often wonder (or worry) about how we look. If we are performing in front of friends, family, audiences, scouts, media, etc., this is often an unfortunate TRAP. Ironically, those that are NOT self-conscious and are just fully enjoying their activity, ALWAYS LOOK & PERFORM THE BEST. Total focus and engagement does that--it makes you look great.

So whether it is tryout camp, performing in front of parents, or performing in front of big audiences--BE YOURSELF--ENJOY WHAT YOU ARE DOING. *Prepare* to be this way, if you need to.... *People who worry about how they look, seldom look good....*

The key to solving this "*self-conscious*" tendency related to how you look, is "*self-acceptance*". If we know *who we are, where*

*our support is and how we want to live, we stop worrying so much about what others think. It frees us up to "be ourselves" and "be what we can be". Dr. Matt Brown found these elements in interviews with Canada's top *character* athletes. He believes these things contribute to a better "perspective" in sport and life. Working on "self-acceptance" and "perspective" in the emotional world of sport can help us realize more of our *potential* in life.*

Do "irrational beliefs" creep in on you?

Journalist, Scott Taylor, once suggested *"The great thing about sport is that it enables us to care passionately about something that really doesn't matter"*. It's true, sport enjoys an almost ridiculous status in life! In light of the importance of community and global challenges, sport probably doesn't really deserve such status. However, because we do get so passionate about sport, it is a great place to learn about emotions and *"staying rational"*.

Watch out for the following *"irrational beliefs"* that can interfere with one's *enjoyment and performance* in sport. Sometimes they can also interfere with our *recovery and health*. They happen because of the irrational status and significance often given sport.

My self-worth is on the line (in sport)--Our self-worth in life should be about many more things than a moment in sport. Make sure there is more to you than "jock". Family member, community member, student, friend, teammate, citizen of the world are all part of a *healthy rational identity*. Put sport back *"in perspective"*!

I must be perfect--By definition impossible, but in sport we often start thinking and feeling this way. The pursuit of *excellence* is highly commendable, but expectations of

perfection are *irrational* and often very *dysfunctional*. Free yourself up to take chances and excel--leave perfection for the *obsessive*. It's who responds best to their mistakes that usually wins.

I must perform for others--Guilt can be a deadly emotion! Wanting to perform for others can be a powerful motivator. Perceptions of *"have to"* as discussed earlier can destroy our focus and confidence. Perform with *"a clear mind and an unburdened heart"*. Don't let guilt (unintentional or not) develop from privileges you have been provided. Discuss this with parents, teammates and sponsors so you can do things for the right reasons.

The world must be fair--Unfortunately, it often isn't.... AND sport is a good place to begin learning how to cope with the reality that *the world isn't always fair!* Certainly we should always fight for justice, but an *irrational belief* that the world must always be fair can cause one a lot of agony and heartbreak, and hurt one's coping capability. Become a *leader* who can focus and perform through *injustice*.

The "raison d'etre" of sport, is to teach us how to *"stay rational"* in an irrational world. ENJOY the challenge.

Do you enjoy "positive rivalries" with opponents & teammates?

"Positive rivalries" have many advantages over *"negative rivalries"* in sport and life. Have you learned to *embrace* positive rivalries and enjoy the many *payoffs*?? With positive rivalries, everything is *positive*. You *respect and appreciate* those you are competing with. Your mindset is *"I hope you are good, because that makes me better, and that's good for both of us"*. This attitude clearly brings out the best in everyone.

Golfer Tiger Woods enjoys *positive rivalries* with his fellow golfers. He admires it and enjoys the challenge when his competitors perform well. This attitude has helped him perform superbly when being tested by a strong opponent. Speedskaters Susan Auch and Catriona Lemay-Doan developed a positive rivalry *on their own team* that enabled them to finish 1st & 2nd in the 500 metre Olympic Speedskating Race in Nagano, Japan.

Wayne Gretzky has become Canada's leader in hockey because he *loves* playing the best. As a player, captain, and now coach, manager and leader, Wayne *loves positive rivalries*. His play in Canada Cups, Stanley Cup finals and the Olympics is legendary. He knew *playing the best brought out the best in him*. The *respect* he has for the game and the people who play it is amazing.

Keep your rivalries *positive*.... When they slip and become *negative*, a lot of things deteriorate:

fear of failure creeps in

tension/pressure builds

negative images occur (that interfere)

focus/concentration deteriorates

"perspective" disappears

The person who is into *negative rivalries* is at a significant disadvantage in terms of focus, enjoyment and consistent performance. *Appreciate and respect* your competition--it will bring out the best in you and make for great *team dynamics*....

Where would we be without our competitors? Competing with ourselves? Think

about "*pick-up*" games of "*play*", where the competition is intense, but the welfare of the participants is always the priority. If rivalries turn negative, no one will play.... Ah, a *lesson for life*.

Do you "draw lessons" after every competition?

If you were an astronaut, you would "*debrief*" after every flight or exercise. When lives are at stake, it is critical to "*draw lessons*" from every experience. The debrief exercise is not just to *identify mistakes*, but to *see and recognize solutions*. We should do the same in sport and other performance domains. There is no point in feeling bad indefinitely about our mistakes. The key is to "*see the solution*" like great performers do, then *look forward to the next opportunity*.

Hopefully your coach helps you with accurate "*attributions*" after a competition. *Effort, ability, task difficulty and luck* can all play roles in most sport outcomes. If your coach doesn't clarify "*attributions*", seek out a trusted teammate and decide what you have learned and what you need to do next time. Once you have "*seen the solutions*", it's time to "*let go*" and get some *recovery*. It sure beats leaving with uncertainty, frustration and emotional "*baggage*" that can interfere with recovery and growth.

How important is "recovery"?

Most people realize how important it is to "*train*" if you are an athlete. You need to develop your "*capacities*" to perform well. Equally important, however, is your "*state*" of being. If you are not well *nourished, rested and hydrated*, most of your *capacities* will be "*masked*" or lost. So training can be a waste of time if you don't take pride in "*recovery*". Releasing worry, stretching properly, massage, hydration, good nutrition, rest and enjoyable activities are all part

of "recovery". Take pride in both *passive and active* recovery activities. It's the only way to make sure your training pays off the way it should.

Remember that "recovery" is *mental and emotional* as well as *physical*. *Mental* overload will affect your *mental* capacities and *emotional* fatigue can affect ALL capacities. So managing school and relationship demands can really affect your "state", and therefore your "capacities". The key to "emotional management" is learning to "accept" your feelings and then "interpret and process" them. Trusted friends can be a big help with this--so you respond and don't over-react to things *Repression or denial* of feelings on the other hand can interfere with recovery and emotional health.

RECOVERY is an important concept--in sport and life.... Get good at it early!

Do you focus on the 4 areas of "development" between competitions?

There are 4 important "areas of development" for every athlete. The first is *Skill development* which is obviously important and requires lots of *quality* practice. Although a certain amount of "quantity" of training is necessary for skill development, "quality" is probably the most important consideration! As well, for creative skill development, some time for exploration, trying things, taking risks etc. can be important. Many of the very best, including Gretzky, suggest we shouldn't underestimate the potential of "pick-up" games for skill development.

Strategy development is the 2nd major area of development and preparation. Every performer should have a "game plan" that involves the key strategies, cues, and responses. *Game plans* should be simple enough to *avoid overload* and comprehen-

sive enough to *hold your focus*. Simple strategies well-executed usually beat complex strategies that confuse or overload. Err on the side of simplicity.

Fitness development is the 3rd component of development and preparation. It involves developing *cardio-vascular fitness, flexibility, muscular strength and endurance*. Physical training loads should be progressive as you mature, but "recovery" should also be kept a priority. *Team* training can help make physical training enjoyable.

Psychological preparation and development is the 4th component to consider. Although this area is often the last area to be considered, top athletes like Olympic Diving Gold Medallist, Sylvia Bernier, believe good psychology can help you develop in all the other areas. Imagery can help you learn and train better. Relaxation can help recovery. Game plans can help you focus and execute strategies.

As well *psychology* can help you to get to know yourself better and develop a strong "perspective". It can help you with team and interpersonal skills, pre-competition plans, focus plans, refocusing strategies, emotional management, and debriefing. Take pride in ALL 4 areas of development if you are an athlete or performer. It is all part of helping you realize your *potential*.

Do you get the "support" you deserve?

To realize our potential we all need "support". We all need "challenge" from time to time as well, BUT *support* is a primary need! Ideally some of that support is "unconditional"--which means we feel loved for "who we are", not "what we accomplish". People who have that kind of support usually *feel more secure, have a better perspective and* as psychologist Abraham Maslow

suggests, *have a better chance to "actualize" their potential.*

Hopefully you feel "*unconditional support*" from some of the key people in your life. If you don't, explore some of the key relationships in your life. Sometimes support has accidentally and unintentionally come to feel "*conditional*". It's hard to perform well in sport and life if you feel support is always "*conditional*" on how you perform.

Good, caring 2-way communication can help with *rediscovering unconditional support or love*. If unconditional support is not there in traditional places (eg. parents), invest in the good people you *admire and trust* the most--It might be a friend, a grandparent, a teacher, a coach, a relative. We all benefit from a few people who support us for *who we are* rather than *what we achieve*, people who can remind us "*who we are*" in simple non-judgemental ways.

"*Belief*" starts with being accepted by others. Find those who *accept you for who you are*, & take pride in those relationships. We all deserve *support*--BUT sometimes we have to find it. Life is a "team" game....

Do you think sport is good "preparation for life"?

Like life, we don't always get everything we deserve in sport. Sport is a great place to work on our *persistence and coping skills* when things don't go the way we want. We start to learn "*what is within our control*" and "*what is beyond our control*". We can also learn how to *support one another* under

pressure, so *refocusing* is not so difficult. We can learn a good *work ethic* and improve our *persistence and resilience*. We can learn how to *manage our emotions* and become an exciting mix of "*caring*" and "*character*". We can learn more about "*who we are*" and "*the importance of values*". We can learn about *teamwork, collective belief, and human potential*.

Impressive *possibilities*--BUT no *guarantees*! Sport has tremendous *potential*--BUT *potential* to go many ways. For some it has led to drug abuse, eating disorders, violence, cheating, gambling, discrimination and lost souls. Approach this powerful vehicle with *perspective*, not *dependency*. Participate "*on your terms*"--so you get where YOU want to goAND realize your POSITIVE POTENTIAL!

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In Pursuit of Physical Perfection: Weight Lifting and Steroid Use in Men

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Abstract

This study used a qualitative method to examine eight men's motivations for weight lifting and steroid use. Results indicated that these men desired self-improvement, but their goal of obtaining the ideal masculine body became all-consuming and impeded their social and occupational functioning. Complex cognitive, interpersonal, mental health and personality issues became evident. In-depth assessment, accurate case conceptualization, and creative and individualized counseling or treatment are recommended for helping these individuals reach their goal of self-improvement in a healthier manner.

Goals of obtaining a muscular, lean and 'ripped' masculine body may appear realistic according to cultural standards (Cusamano & Thompson, 1997; Davis et al., 1997; Epling & Pierce, 1996; Klein, 1993; Marzano-Parisoli, 2001; Weigers, 1998). Individuals who engage in weight lifting and steroid use may present as confident, self-assured individuals who appear to be extremely healthy according to North American images of masculinity (e.g., having an attractive, large, muscular body). However, beneath this veneer of physical perfection

may lie a multitude of maladaptive beliefs and obsessive-compulsive behaviors that consume excessive amounts of time, money, and energy (Pope, Phillips, & Olivardia, 2000). Over time, they may become so focused on their weight lifting, dieting, and steroid use behaviors that they begin to neglect other areas of their lives (e.g., avoiding social or work activities because of their perceived need to "work out"). Research is beginning to show that men may experience similar issues and demonstrate behaviors similar to eating disorders, specifically

through attempts to achieve greater muscle mass and lower body fat through weight lifting, dieting, and the use of ‘natural’ supplements and/or anabolic steroids (Anderson, 1999; Klein, 1993; Marzano-Parisoli, 2001; Monaghan, 2001; Phillips & Kastle, 2001; Pope et al., 2000).

An understanding of the diagnostic criteria for eating disorders and muscle dysmorphia is important to understand how individuals who lift weights and use steroids are currently perceived. Individuals who participate in weight lifting as an athletic event (e.g., bodybuilders) may be more susceptible to eating disorders than casual exercisers (Brooks, Taylor, Hardy, & Lass, 2000; Burkes-Miller, 1998; Taub & Blinde, 1992). There may be similarities between individuals who lift heavy weights and individuals with eating disorders, although weight lifting in most men does not become pathological. For some men, however, bodybuilding may be considered “reverse anorexia” (Andersen, 1999, p. 73). Bodybuilders strive to *increase* their size while individuals with anorexia strive to *decrease* their size. Bodybuilders and power lifters may exhibit other behaviors that meet the criteria for anorexia, including rigid food restriction; strict exercise regimes; binge-eating; self-induced vomiting; and/or abuse of laxatives, diuretics, herbal supplements, or other harmful substances (Anderson, 1999; Pope et al., 2000). Bodybuilders and power lifters may adhere to such rigid dietary and exercise routines that their normal daily functioning is impaired (Pope, Katz & Hudson, 1993).

Pope et al. (2000) propose muscle dysmorphia to be a sub-category of body dysmorphic disorder, although it is not listed in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (American Psychological Association [APA], 2000). Muscle dysmorphia includes

specific behaviors such as long hours of lifting weights and/or doing aerobic exercise, excessive attention to diet, and use of substances (e.g., steroids) and/or excessive exercise despite knowledge of negative physical or psychological consequences such as osteoporosis, stress fractures, and muscle damage (Kilpatrick & Caldwell, 2001; Phillips & Kastle, 2001). Muscle dysmorphia includes a preoccupation with the idea that one’s body is not sufficiently lean and muscular, clinically significant distress or impairment in social and/or occupational functioning due to preoccupation with muscle size (e.g., canceling family engagements in order to work out), and a primary focus on being too small or inadequately muscular (Pope et al., 2000). However, men who appear to have muscle dysmorphia may be excessively muscular in reality (Phillips & Kastle, 2001).

Past research has addressed cultural (Marzano-Parisoli, 2001; Wendell, 1996) and media (Cusamano & Thompson, 1997; Davis et al., 1997; Epling & Pierce, 1996; Klein, 1993; Marzano-Parisoli, 2001; Weigers, 1998) influences for men’s increased engagement in weight lifting and steroid use, and identified muscle dysmorphia as a mental health issue (Kilpatrick & Caldwell, 2001; Phillips & Kastle, 2001; Pope et al., 2000). However, studies often do not inquire into individual perceptions of one’s motivation to engage in weight lifting and steroid use. Therefore, the purpose of this study was to examine men’s perceptions of their motivation(s) to obtain an ideal masculine body through weight lifting and steroid use. As well, studies have not yet addressed appropriate counseling or treatment for the bodybuilding treatment-seeking population. Therefore this article will also provide a discussion of accurate assessment, case conceptualization, and individualized treatment for men with this problem. We

hope these suggestions may provide a springboard for future treatment effectiveness studies.

Method

This study was based on a qualitative research design which utilized a hermeneutic-phenomenological methodology. Phenomenology is the study of lived experience (Jardine, 1990; Van Manen, 1990). The process of phenomenology requires us to obtain descriptive accounts of actual lived experiences in order for us to more fully and deeply comprehend human behavior and experience by (Von Eckartsberg, 1998; Jardine; Van Manen). Hermeneutic analysis involves describing, interpreting and understanding the individuals' lived experiences (Nixon, 1992).

A variety of strategies were employed to increase the trustworthiness of this research. First, accuracy in recording, transcribing and maintaining records of transcriptions and interpretations of the data was ensured. Ongoing documentation of procedures used during interviews and data analysis and the use of verbatim illustrations preserved the integrity of data interpretation. In order to ensure quality data interpretation, the researcher utilized feedback from the participants and engaged in ongoing evaluation of the data and supervisor consultation.

Selection of Research Participants

Eight males between the ages of 21 and 35 volunteered to be interviewed for this study. Participants responded to posters displayed at four participating fitness facilities in Southern Alberta and to referrals by owners/managers of fitness facilities and acquaintances of the researcher. Participants met the following criteria for inclusion in the research study: (a) had been lifting heavy weights one or more hours per day, four or more days per week, for a minimum

of six months; (b) recognized that exercise may be interfering with their social or work life; (c) used steroids and/or other muscle building supplements; and (d) were able to verbalize their experiences with weight lifting and steroid use.

Interview Procedure

The primary researcher (Bardick) conducted all interviews. Initial interviews ranged from 75 minutes to four hours in length, with an average length of 2.75 hours. Research participants were asked to use a story format (Cochran, 1985, 1986) with a beginning (first involvement in weight lifting), middle (months or years in which they became more involved with weight lifting), and end (the present) to describe their experiences with heavy weight lifting and steroid use. The researcher arranged individual follow-up interviews to clarify information and discuss the themes with the participants. Initial interviews were taped and transcribed. Consent forms were signed and anonymity offered via pseudonyms. For legal purposes, participants were asked not to reveal where they obtained steroids.

Thematic Analysis

A hermeneutic approach to thematic analysis was used. First, an initial interpretation of each interview was arrived at through a thorough reading of the transcribed data. Second, the structure and overall themes evident in the data were categorized with a focus on the participants' actual words, phrases and expressions. Third, common themes between participants' stories were determined. Finally, themes were discussed with the researcher's supervisor and the research participants to determine their accuracy. The themes and the researcher's interpretation of their meaning of all the research participants are presented using verbatim quotes, paraphrasing, and pseudonyms, with respect to confidentiality.

Results

Motivating and Sustaining Factors

There are a multitude of complex and diverse reasons why men may begin weight training and using steroids. Reasons include to improve athletic ability, to increase muscle mass, to enhance self-confidence, to improve their health, to overcome a poor body image or a negative self-image, to overcome an addiction or deal with depression, or to gain social recognition. This list is by no means exhaustive of the many possible reasons why men may begin lifting weights or using steroids. It is meant to alert the reader to the complexity and range of motivating and sustaining factors for these behaviors. The following examples illustrate the richness and diversity of the motivating and sustaining factors that may contribute to some men's desire, or drive, to lift weights and use steroids.

Improve health.

Some men may begin weight training out of a desire to improve their health. For example, David began weight training when his girlfriend encouraged him to “get into shape”, but when he could not lift more weight than she could, his pride suffered. He became involved in power lifting and began entering competitions until he could not face the mental strain of competition training. David was also a recovering alcoholic, and stated that the gym was a “positive addiction” to prevent him from returning to his “negative addiction.” It appears that his primary motivating factor, to “get in shape,” evolved into a sustaining factor of maintaining a “positive addiction” to weight training to prevent him from returning to his previous drinking habit(s).

Enhance athletic ability.

Some men may begin weight training to enhance their athletic ability. For example, Josh described himself as a “golden boy”

who believed he “had” to begin weight training to become a better hockey player, and then “needed to take steroids to become the best.” He was banned from playing hockey, yet he continued to believe he needed to prove he was the “best” by lifting weights, taking steroids. He intended to use steroids until he was “man size” at age 30. His primary motivating factor, “to become the best,” remained as his sustaining factor.

Improve body image

Other men may begin weight training to overcome a poor body image they developed at a young age. For example, Jake described himself as a “shy fat kid” who was teased by his peers and wanted to become a bodybuilder to gain respect and admiration. His mother died when he was age 16. Prior to dying, she left him a letter wherein she stated she was proud of him for lifting weights. He received this letter after she died. He vowed to never stop. No matter how muscular he became or how many bodybuilding competitions he won, he still felt like a “shy fat kid” inside. His primary motivating factor, to overcome the “shy fat kid” image, appeared to be compounded by his mother's message to never stop weight training, which then became a strong sustaining factor for his behaviors.

Improve self-image.

Overcoming a negative self-image may also provide incentive to begin weight training. For example, Ryan described himself as a “bad kid” who used weight training to “keep out of trouble.” He stated that he impulsively used steroids “for the quick fix.” He described himself as being very hyperactive, impulsive, unable to sleep, and stated that intense weight training helped him to remain calm. His primary motivating factor, “to keep out of trouble” appeared to be a sustaining factor for his weight training and periodic steroid use behaviors.

Media images.

Media images of hyper-muscular men may contribute to a man's perception of an ideal masculine body, which may perpetuate maladaptive thinking such as "I should look like that" or "I must use steroids until I am as big as him." However, these media images may be fleeting and difficult to achieve. For example, Matt described his continuous search for the 'perfect' body. "The consuming part of it isn't necessarily in the gym, but it is in the back of your mind a lot." This statement illustrates a connection between obsessive thoughts about one's body and compulsive weight lifting and steroid use behaviors. Matt stated that even when he was not training, he was continuously reading bodybuilding magazines and wondering "What can I be doing for this? You know, like how I can get my calves like that? Can I get my chest bigger? What should I be doing here? Should I be doing high reps? Low reps? You are constantly thinking of stuff like that."

Social Recognition.

Developing an ideal body may be seen as a means to achieve social recognition. Individuals may also perceive that they will only gain attention from women and respect from other men if their bodies look a certain way. Belonging to an "elite" group of individuals (e.g., bodybuilders or power lifters) also appears to motivate individuals to train harder and to continue training despite lack of desire. David described this phenomenon as a "sense of belonging":

There's something about being included in a group... It's just like an unwritten rule, you're here, it's just a time that we're together and we think alike and we're of like-minded goals....There's this huge bond and...it was like...a boys club....But it was the same thing as belonging to organized crime. It runs your life.

This myriad of complex and interconnected motivating and sustaining factors suggests that individual motivations for weight lifting and steroid use are as unique as the individual. When all of the motivations were examined, a core theme of the desire for self-improvement became apparent. For these men, the desire for self-improvement evolved into an attempt to attain physical perfection through weight lifting and steroid use.

Recommendations

Self-improvement is a goal worthy of attaining. However, when the goal transforms into a misguided attempt to obtain physical perfection, it may become harmful. Therefore, a turn to in-depth assessment, accurate case conceptualization, and individualized counseling or treatment may be helpful to inform counsellors on how to help men with similar issues obtain their goal of self-improvement in a healthier manner. As no treatment effectiveness studies have been conducted with the bodybuilding treatment-seeking population, the following suggestions are meant to provide insight into potential assessment, case conceptualization and treatment options.

Assessment and Case Conceptualization

Individuals may present with very similar weight lifting and steroid use behaviors, which would appear to warrant a similar diagnosis (e.g., muscle dysmorphia). Unfortunately, assessing the presenting behaviors and arriving at a diagnostic label may be insufficient because it may not address the complexity of each individual and may lead to stereotypical treatment. In addition to assessing presenting behaviors, an in-depth assessment involves a thorough examination of motivating and sustaining factors, personality factors, mental health issues, and family history. Assessment of these factors may then lead to a clearer case conceptualization,

which then allows for creative individualized treatment. The following illustrative examples may provide insight into the complexity of assessment and case conceptualization.

Individuals may present with very similar weight lifting and steroid use behaviors, as can be seen in the following examples. Bob, Scott, and Matt each lifted weights excessively and used excessive amounts of herbal supplements in an attempt to gain muscle mass and lose fat to obtain an ‘ideal’ body. Bob also used steroids on several occasions. All three men began to take more time away from family and friends to train, spend more money than they intended to on food and supplements, and isolated themselves from family and friends. They reported experiencing depression when they did not reach the physical goals they set for themselves, and stated that they were continually looking for the “right” program for their body. None of these men believed their bodies were big enough. According to this assessment information, each of these individuals would likely receive a diagnosis of muscle dysmorphia. Further assessment would reveal that all three individuals suffered from major depression. However, a diagnosis of muscle dysmorphia and a co-occurring diagnosis of major depression may not sufficiently explain each individual’s unique motivating and sustaining factors that becomes apparent upon further investigation. For example, each man revealed very different motivating and sustaining factors, personality patterns, and family histories. Scott described experiencing tremendous difficulties maintaining relationships with women due to feelings of paranoia and lack of trust, felt like a “failure” because he did not attend college like his parents expected him to, and therefore set out to work on his career as a personal trainer 12 hours a day, seven days a week. Bob revealed that he was consumed by per-

fectionism, insisted on being noticed as an “individual,” and tried to live up to his father’s standards even though he stated that his father never gave him the respect that he was seeking. Matt stated that he was seeking physical perfection, admiration of women and men, and continued self-improvement, primarily because he did not think he was “good enough.” These specific case examples illustrate that a diagnosis of muscle dysmorphia does not fully encompass the range of specific motivating and sustaining factors, personality patterns and family history that leads to clear case conceptualization and therefore creative and individualized treatment.

As can be seen by these examples, assessment requires an in-depth examination of an individual’s current presenting behavior, motivating and sustaining factors, mental health issues, personality patterns, and family history in order to arrive at an accurate case conceptualization. A rich and detailed case conceptualization is essential to inform creative and individualized treatment.

Individualized Treatment

As noted in the previous examples, assessment of individuals who weight lift and use steroids may reveal a variety of complex issues that reach far beyond their presenting behaviors. Therefore, counseling or treatment requires a creative and individualized approach in order to meet the specific needs of each person. Counselors or treating therapists need to combine the development of a strong therapeutic relationship with specific targets for intervention that are creative and unique to each individual. These two factors will enhance client motivation and contribute to change that occurs more quickly than treatment that is generalized and based on behavioral stereotypes.

Counselor or therapeutic relationship.

Building a strong therapeutic relationship is crucial to successful treatment. Empathetic listening and understanding are keys to developing a strong therapeutic relationship. Treating therapists need to have an attitude and orientation of knowledge rather than of stereotyped misconceptions of ‘muscle heads’ and ‘juicers’ in order to build a therapeutic relationship.

Establishing a therapeutic relationship with these individuals may be challenging because they may have a fear of being judged or may not trust others because they may have been treated in a judgmental manner by the people they interact with on a daily basis. Individuals may be hesitant to speak with someone who does not share a similar interest in weight lifting. An illustrative example of an individual engaged in weight lifting and steroid use being treated in a stereotypical manner may be helpful. For example, Josh attempted suicide when was banned from hockey after being caught using steroids, and was admitted to a psychiatric ward. He immediately received a diagnosis of Bipolar disorder and was told to stop using steroids. Josh stated that he “wasn’t even treated like a human being.” Even though he continued to experience difficulties with depression and suicidal thoughts years after this experience, Josh refused to seek help, stating:

I don’t need a psychologist [to tell me] why I am who I am, why I do what I do. I don’t need a psychologist to know why I’m angry at the world and violent. It’s because my biological father was abusive and a [complete jerk]. The fact that...they say I [have] addictive disorder, I don’t know. That’s just floating in the air b.s. Those doctors aren’t gonna tell me something about myself that I don’t already know.

The counselor’s or treating therapist’s primary role in working with individuals who engage in weight lifting and steroid use is to provide an atmosphere in which each person feels safe enough to reveal his story. The treating therapist listens to each person’s story with an empathetic ear and seeks to understand his individualized manifestation of the problem. As the therapist encourages each individual to share his story and examine his beliefs and ways of being in the world, his unique treatment needs will be revealed.

The development of a trusting therapeutic relationship will enhance the exploration of underlying issues and provide a basis for revealing creative and individual targets of intervention.

Targets of intervention.

A treating therapist utilizes the therapeutic relationship to encourage each individual to fully explore his story and identify specific targets of intervention. The targets of intervention evolve from each individual’s story, and therefore, no two interventions will look the same. Contrary to therapeutic stereotypes, behavioral interventions to “stop using steroids” or “stop lifting weights” may not be necessary if core issues from each individual’s story are fully explored and resolved. In fact, recommending that individuals stop a behavior that they believe to be helpful may be harmful. Rather, redefining the behavior as health-enhancing and increasing the individual’s repertoire of other self-improvement strategies may be useful. The following examples are not meant to be exhaustive of the possible targets of intervention, but are given to illustrate the range and diversity of issues that may provide a basis for exploration and intervention.

The words individuals use to describe themselves may become a target of intervention.

For example, David stated that he wanted to be the “biggest, flashiest peacock in the bar.” The relevance and importance of this image would be flushed out through continued dialogue with the individual. Not only would the quality of the language David used (e.g., the terms “biggest” and “flashiest”), but an exploration of the underlying assumption of the need to be the “flashiest” would likely ensue. A therapist would explore and examine the validity of underlying beliefs contributing to the importance of being the “flashiest”, questioning him where these beliefs came from, how they help him or hinder him, and why it is important to him. It may be the exploration into the formation of such beliefs that leads to insight and therefore change.

Individuals may present with a repeated behavioral pattern that becomes a target of intervention. For example, Scott stated that he was no longer weight training or using excessive supplements and was seeking a more balanced life. However, he was now working 12 hour days, seven days a week. This pattern of switching from obsessive-compulsive training and supplement use to overworking becomes the target of intervention. Within this example, Scott stated that his parents were disappointed that he had not attended college, and that he wanted to be successful despite his lack of education. A therapist would help him examine the origin of the beliefs underlying this desire to be successful. Once the individual begins to show insights into the inappropriate and excessive need for success, he may be encouraged to try a behavioral intervention such as scheduling reduced work hours and increasing recreational time. As can be seen in this example, one specific behavioral pattern may become a target for exploration and intervention.

Other issues also may become targets of intervention. For example, Jake stated that he began weight training at age 12 to overcome a “shy fat kid” image. When he was 16, his mother died after a long illness, leaving him with a letter saying that she was proud of him for lifting weights and to never stop. The interconnection between his “shy fat kid” image and grief issues over losing his mother would become targets for intervention. A therapist could examine the basis for his beliefs about himself, the impact his mother’s death had on him, and the continued perceived expectations implied from the letter she left him. When the individuals’ stories are listened to with empathy and understanding, targets of intervention become clear and unique to each person. When the target of intervention matches the core issue that the individual is describing, the person feels heard, develops insights and therefore his motivation for change will be much higher than when a stereotypical suggestion based on presenting behaviors (e.g., “stop using steroids”) is made. These examples illustrate the need for the counselor or treating therapist to listen carefully to the client’s story for indications for targets of intervention that meet the unique needs of the individual.

Summary

As noted throughout this article, there are a range of motivating and sustaining factors, mental perspectives or disorders and personality traits, developmental, familial, and other social issues and life stressors that may contribute to the desire obtain an ideal masculine body. In-depth assessment, accurate case conceptualization, and creative and individualized treatment is important to meet the wide range of issues that these individuals may be dealing with. A strong counseling or therapeutic relationship provides a basis for these individuals to fully express their story without fear of being judged. Is-

sues that arise while the individual tells his story become creative and individual targets of intervention. It is this creative and individualized treatment that facilitates insight,

motivation for change, and encourages individuals to obtain their goals of self-improvement without harm.

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Relaxation and Guided Imagery in the Sport Rehabilitation Context

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Abstract

Sport injuries have been predicted to occur at a rate of 17 million per year, and 8 of 10 athletes become injured during high school and college (Robbins & Rosenfeld, 2001). Injured athletes may experience tension, loneliness, fear, shock/disbelief, and uncertainty of the future (Evan & Hardy, 2002b; Udry et al., 1997). Athletes also look towards the head and assistant coaches, athletic trainers, teammates, family and friends for social support during an injury (Gould et al., 1997a; Robbins & Rosenfeld, 2001). A qualitative and quantitative design was utilized to describe the effects of relaxation and imagery in the sport rehabilitation setting on self-confidence and fear of returning to sport. In addition, the possible relationships between perceived social support, self-confidence, and transition into play were investigated with modified versions of the State and Trait Sport Confidence Inventory (Vealey, 1986), Social Support Survey (Richman, Rosenfeld, & Hardy, 1993), and Sport Imagery Evaluation (Vealey & Greenleaf, 2001). Participants were 2 injured male collegiate athletes (soccer and baseball) with upper extremity injuries of moderate severity levels and an estimated recovery period of 2 weeks. Participants were given a specifically designed audiocassette tape of a guided imagery script, which was used twice daily. Results were processed and analyzed for any similarities and/or discrepancies between participants regarding the rehabilitation experience. Both experienced increases in self-confidence and moderate to high levels of social support. Participant 001 received the most amount of social support from the athletic trainer and significant other. Participant 002 received the most social support from the head coach. Neither participant was fearful to return to play.

The integrated model of psychological response to the sport injury and rehabilitation process mentioned three psychological responses: cognitive appraisals, emotional responses and behavioral responses (Wiese-Bjornstal et al., 1998). This integrated model combines the pre-injury model of Andersen and Williams (1988) with the post-injury model of Wiese-Bjornstal et al. (1995). In this model, cognitive appraisals are believed to influence and affect both the emotional and behavioral responses to sport injury (Wiese-Bjornstal et al., 1988). Daly, Brewer, Van Raalte, Petitpas and Sklar (as cited in Wiese-Bjornstal et al.) found support for this theory by observing that athletes' cognitive appraisals were significantly correlated with total mood disruption. Smith, Scott, O'Fallon, and Young also noted athletes with injuries lasting more than two weeks experienced more mood disturbance than

did other injured athletes (as cited in Wiese-Bjornstal et al.). However, the effects of injury on self-esteem, self-worth, self-confidence and self-efficacy are still unknown.

The sports medicine field is becoming more aware of the psychological factors that play such a fundamental role in the athletic injury process (Durso-Cupal, 1998), further exemplifying the importance of understanding this phenomenon. Nevertheless, the use of mental training interventions during rehabilitation has not been studied as frequently; nor are athletes usually given the opportunity to use psychological interventions for prevention, or rehabilitation coping (Durso-Cupal, 1998). The five psychological factors that have been empirically shown to positively contribute to the prevention of or physical recovery from injury in intervention based studies are: goal setting, psycho-

logical skills training, positive self-talk, knowledge/education, and social support (Durso-Cupal, 1998). Imagery, also called mental practice or rehearsal, may be used during injury rehabilitation to cope with pain, speed up recovery, give a positive outlook, keep physical skills from decreasing, and reduce both state and re-injury anxiety (Vealey & Greenleaf, 2001; Williams, Rotella, & Scherzer 2001).

In a study of recovery time while implementing mental imagery, Carroll (1993) found physical rehabilitation with imagery resulted in a faster recovery, a return that resembled a typical athlete profile on the Profile of Mood States Questionnaire (POMS), and perceived social support to be adequate than did physical therapy alone. However, the criteria used to determine the estimated recovery time was not provided. Carroll (1993) reported the intervention participants noted a greater sense of control and confidence due to the imagery training and attributed 26% of total recovery to the intervention, and an 80% belief that mental imagery is an effective aid to healing.

Magyar and Duda (2000) found that higher perceptions of social support might lead to higher self-confidence through messages given from the athletic training context, capabilities of the athletic trainer, and the degree of familiarity from the environment. Another way injured athletes seek social support is by turning to a teammate who has previously recovered from a similar injury (Gould et al., 1997a & b; Robbins & Rosenfeld, 2001) and model their behavior in a facilitative manner, with the use of role modeling and guidance. However, social comparison may also be detrimental to the recovery process if the athlete follows the bad habits and attitudes of others. Flint (1998) recommended the injured athlete be

able to remain close to the rest of the team during practice and rehabilitation as this may help the athlete feel valued and supported. The purpose of this study was to assess how a mental training program, consisting of relaxation with guided imagery, would help in the post-injury recovery process. The first research question was would the use of guided imagery increase self-confidence during rehabilitation in injured athletes? Secondly, would the use of guided imagery during rehabilitation decrease fear of returning to play? Third, what was the relationship between perceived social support and a more confident transition into play? Lastly, what was the relationship between perceived social support and self-confidence?

Methods

Participants

The participants (N = 2) in this study were selected from a Southeastern NCAA Division I university. One participant was a member of the soccer team and the other a member of the baseball team. The ages of the participants were 23 and 18, respectively, and both participants were male. One of the participants was African-American, while the other was Caucasian. The participants were a senior and starter while the other a freshman and reserve. Both participants were aware of relaxation and imagery, however, only one had several years of previous experience using imagery. However, neither of the participants had used imagery in the past during rehabilitation from an injury. Both participants had incurred injuries previously, however, one of the athletes had sustained six career injuries and the other only two career injuries.

The criterion for inclusion was the participants must sustain macrotrauma injuries. Macrotrauma injuries were defined as occur-

ring from a sudden discrete impact or force (Crossman, 2001; Flint, 1998). For this study, and for the criterion for inclusion, an injury was defined as being sport related, keeping a player out of practice or competition the day after an injury, requiring medical attention of any type (except for icing and wrapping) and all concussions, and nerve injuries.

Participants had upper, left extremity injuries (rotator cuff tendon tear, and fractured left radius) with moderate severity levels. The soccer player was a goalie; therefore, an upper extremity injury may affect the athlete's performance. The baseball player's injury was on the athlete's non-dominant, non-throwing arm. Severity levels were determined by the team physician and athletic trainer(s). Both participants' estimated recovery time was two weeks. The onset of injuries was during the pre-season and regular season, respectively.

Measures

Self-confidence.

A modified version of the Trait and State Sport-Confidence Inventory (M-TSCI and M-SSCI, respectively; Vealey, 1986) was used to assess each participant's level of self-confidence about performing specific tasks. The athletes responded to 13 items which were rated on a Likert scale ranging from 0 (not at all confident) to 10 (completely confident). The modified version of the SSCI has been found to be internally reliable with alpha levels of .98, .98, and .97 for the first, second, and third administrations respectively (Magyar & Duda, 2000). This modified version of the SSCI has not been reported to be valid. However, the original trait and state versions are high in validity (Vealey, 1986).

Perceived Social Support.

To measure an athlete's perceived social support a modified version of the Social Support Survey (M-SSS; Richman, Rosenfeld & Hardy, 1993) was used. Richman, Rosenfeld, and Hardy developed the Social Support Survey as a means to provide the practitioner and researcher with a comprehension of the social support process as well as an assessment method to plan the intervention. The SSS and many of the modified forms have been found to be valid (Robbins & Rosenfeld, 2001).

Robbins and Rosenfeld (2001) modified the original SSS to measure social support during athletic injury. Two of the eight types of social support were removed due to the inapplicability of the population at hand: tangible support (financial, products or gifts) is against NCAA rules, and personal support (running errands or driving) had been found to be irrelevant to athletes during previous interviews. Each athlete was asked to rate perceived social support in three ways: (a) if the head coach, assistant coach, and athletic trainer provided each of the six types of social support, if the answer is 'no' then the athlete would not answer the following questions for that type of support; (b) rate satisfaction with the social support provided, pre- and during injury; and (c) rate perceived importance of each type of social support in relation to well-being, pre- and during injury. Robbins and Rosenfeld also excluded any questions asking the difficulty athletes would have in receiving more of any of the types of social support.

Mental Imagery

The Sport Imagery Evaluation (SIE; Vealey & Greenleaf, 2001) was administered to assess each athlete's ability to experience the different senses, emotions, and perspectives during imagery on a 5-point Likert Scale,

ranging from 1 (*None*) to 5 (*High*). Four imagery situations were included to provide a variety for imagery exposure and are: practicing alone, practicing with others, playing in a contest, and recalling a peak performance. There was no reliability or validity reported for this inventory. The information gathered was used to obtain a baseline of ability to further understand the participants' strengths and weaknesses.

Exit Interview.

After the athletes returned to play, each participated in a qualitative exit interview (see Appendix A). The interview assessed the participants' perceptions of the mental training program and the effectiveness in relation to the rehabilitation process and confidence in the ability to perform. The following are examples of questions used to obtain these perceptions:

“Please describe, in detail, the impact injury had on you personally (i.e., confidence, relationships with non-teammates, etc.). Now describe the impact injury had on you as an athlete (i.e., performance, confidence, relationships with teammates, etc.). How do you think the relaxation and imagery interventions helped your recovery process? Think back prior to your injury, how would you describe your self-confidence in sport? How do you think your self-confidence in sport was affected after the injury occurred?”

Perceived social support was assessed through questions similar to, “What kind(s) of support do you think were most beneficial during your rehabilitation? Can you describe what made that type of support(s) useful to you?” The exit interview also examined fear of re-injury, and the overall injury rehabili-

tation experience. The participants were asked, “On your first day back to play, were you afraid of re-injury? Describe any thoughts or worries you had. Presently, are you concerned of afraid of re-injury at this point? Describe any thoughts or worries you have.”

Procedures

As athletes became injured and met the criteria for inclusion, the researcher was contacted, by the athletic trainer, in person or by telephone, and the athlete was asked to participate in the study within 48 hours of the initial contact with the researcher. Once the athlete agreed to participate, a consent form was provided and a brief explanation given. All interactions with the athletes occurred during physical therapy, shortly before or after completion of therapy and in the presence of the athletic trainer, when appropriate. The researcher introduced relaxation and imagery to each participant by explaining how the intervention may help in the recovery process, followed by three consecutive training sessions.

The first administration of the SIE (Vealey & Greenleaf, 2001) determined the imagery level of the participants and allowed the participants to practice the imagery. The athletes were then instructed on how to improve imagery skills and meetings were scheduled for the following two days for further imagery needs assessment through the completion of the SIE and imagery practice. Based on the inventory results, each participant received an individualized mental training program consisting of relaxation and guided imagery, which was developed following the guidelines provided by Vealey and Greenleaf (2001) and was structured by the script examples used in Carroll's (1993) and Durso-Cupal's (1997) studies as well as recommendations pro-

vided by Crossman (2001). (Refer to Appendix B for the relaxation and imagery rehearsal script used with each participant.) Imagery was used just prior to or after physical therapy sessions as well as throughout each day at the athletes' convenience, twice a day for 15 minutes aided by audiocassette or guided by the researcher. Imagery sessions included thoughts of healing the injured area and overall body wellness. The participants were also asked to keep an imagery log provided by the researcher.

Packets of the inventories contained each participant's number code on the inside of the envelope seal and on each inventory for identification. The first packet containing the Demographic Questionnaire, SIE, M-TSCI and M-SSCI, and the M-SSS was administered during the initial meeting during the early stages of rehabilitation. The second packet contained only the SIE and was administered after the second and third imagery training sessions. The third, and fourth packets contained the SIE, M-SSCI, and the M-SSS and was administered at the estimated mid-point and end of the athletes' rehabilitation process, respectively. Finally, the fifth packet containing the M-TSCI and M-SSCI, the M-SSS, and the exit interview were completed approximately one week after the completion of rehabilitation and the participants returned to full play.

Due to the explorative nature of this study, each participant's results were explained through case study design, using graphical representations of the data to show changes in levels of perceived social support and self-confidence over time, in respect to the intervention. A qualitative interview was also used in the time following the athletes' transition back into play. The qualitative data was transcribed and compared for

common themes between participants about the rehabilitation process and the transition back into play. The transcribed data were also used to verify and further support the data gathered through the quantitative analysis. Triangulation occurred through the analysis of quantitative data, the daily imagery logs as well as the qualitative interview. Results were analyzed for increases in self-confidence, a more confident transition into play, and the possibility of a relationship between the previously mentioned variables with perceived social support.

Results

The participants recorded the number of imagery sessions and what was experienced through the completion of daily imagery logs. Both participants implemented the intervention twice daily for a total of 25 minutes per day. The imagery audiocassette tape was listened to most frequently after physical therapy, or practice, in the morning and at night, by both participants. The hardest imagery skill both participants experienced was the sense of smell during imagery. However, the imagery script was not designed for smell to be utilized. Feelings and sensations in and around the injured area, for both participants, were experienced about three days after the beginning of the intervention. Both participants also recorded being able to see the injured tendon or bone, being able to visualize that area better towards the end of the study, and also being able to visualize the mending or healing of the injured part.

Participant 001

Upon initial contact with Participant 001, he had not been pulled out of practice yet and had been attending some rehabilitation. However, due to repeated falls during practice, the partial rotator cuff tear was in jeopardy of becoming worse thus needing sur-

gery. At this point, Participant 001 had experienced increased pain levels and was pulled from full practice, although he was allowed to continue training.

Sport Imagery Evaluation

At the beginning of the study and during the exit interview, Participant 001 mentioned he had previous experiences with imagery. Participant 001's imagery skills, as measured by the SIE, were somewhat consistent across the four situations. Situation 3, playing in a contest, increased from a score of 12 (Time 3) to 24 (Time 4). The SIE scores also show that Participant 001's imagery skills were highest within situation 4, recalling a peak performance, across Time except for Time 4, where playing in a contest obtained the highest imagery skill score. The last administration of the SIE occurred once rehabilitation was completed and the participant was cleared to full play (Time 5). The scores at Time 5 resembled and exceeded the scores at Time 1, across all four situations.

Participant 001 stated he felt the most was received from the imagery session when it occurred right after his rehabilitation, "...when I was doing my rehab [imagery] during the day or after practice or in the morning...around the time where my shoulder was focused on, it helped a lot. I had vivid imagery and I felt like something was being done." In reference to relaxation, he stated that just relaxing at night really helps. "...When I am by myself, lying down my thoughts are all over the place. But when I have something to listen to it makes me focus on one idea and relaxes me." When asked what he liked about the intervention, he said "I liked the fact that it helped me when I actually needed it. I actually felt like I was doing something that made a difference...after doing it over and over [the imagery] I really saw my muscle fibers and felt

it tingle and [thought] 'whoa, I am actually doing something'!"

Trait and State Sport-Confidence

The participant's trait sport-confidence was measured at the initial meeting (Time 1) with a high score of 111 out of a possible 117, as well as one week post completion of rehabilitation (Time 4) with a score of 105. The average of the two administrations ($M = 108$, $SD = 3$) was used as a baseline for Participant 001's trait sport-confidence. Before injury, Participant 001 stated in the exit interview, that it was very high, a 10 on a scale of 1 to 10. He also felt that his confidence levels were affected after the injury occurred. He said, "I was worried that I might not get back to the way it was before...it took a really long time to heal."

Participant 001's state sport-confidence increased across time throughout rehabilitation, but his state sport-confidence scores were lower than both trait sport-confidence scores at Times 1 and 2. His state sport-confidence increased beyond his trait sport-confidence scores at Time 3 with a score of 115. The last administration of the M-SSCI yielded a score that remained higher than both trait sport-confidence scores. These findings were reflected in the exit interview as well. The participant stated, "I knew that I couldn't do things that I could do before. So confidence was limited...it's frustrating."

Head Coach Social Support.

Prior to the onset of Participant 001's injury, the head coach was perceived as providing all of the different types of social support except Emotional Support. The participant was most satisfied ($M = 4$) for Listening Support and least satisfied ($M = 2$) for Reality Confirmation. Throughout rehabilitation, the participant perceived the head coach as providing Listening Support only at Time 1,

beginning of rehabilitation, with moderate levels of satisfaction and importance. Task Challenge was perceived to be provided by the head coach at Time 1 and Time 3, completion of rehabilitation only, with moderate satisfaction and importance levels for both times. Participant 001 perceived to receive Emotional Support from the head coach at the beginning of rehabilitation only (Time 1) with moderate satisfaction and importance levels. Participant 001 did not perceive the head coach to be providing Task Appreciation, Emotional Challenge, or Reality Confirmation during rehabilitation. The qualitative data was replicated during the exit interview.

Assistant Coach Social Support

The assistant coach was perceived to be providing Participant 001 with all six types of social support prior to the onset of injury. Listening Support deemed the most satisfaction ($M = 3.75$) while Reality Confirmation held the least amount of satisfaction ($M = 3.5$). During the entire rehabilitation from the injury, Participant 001 perceived to receive Listening Support from the assistant coach and felt completely satisfied at Time 1. However, the participant's perception of Listening Support importance varied quite differently from the satisfaction. Time 2 deemed the most important for receiving Listening Support from the Assistant coach, nonetheless that was also the time Participant 001's satisfaction with the perception of support received was the least. Task Challenge was perceived to be provided only at Time 1, but the participant was completely satisfied with the support during that time. The importance for receiving this type of support for the participant at Time 1 was moderate. Satisfaction with Emotional Support was moderate at Time 1 and Time 4, which were also the only times that this type of support was perceived to be given. Re-

ceiving Emotional Support was moderate for both times, however, it was perceived more important at Time 4. Receiving Reality Confirmation was very important for Participant 001 at Time 3. Although his satisfaction level was high, the perceived importance of receiving Reality Confirmation was higher. The assistant coach was not perceived to have provided Task Appreciation or Emotional Challenge during rehabilitation. Participant 001's interview resembled the data collected quantitatively.

Athletic Trainer Social Support

Prior to injury occurring, the participant did not perceive the athletic trainer as giving any type of support. However, during rehabilitation the athletic trainer provided Listening Support, Task Appreciation, Task Challenge, and Reality Confirmation across all four times. Receiving Listening Support was most important at Time 1 and most satisfied with at Time 2 and Time 3. Participant 001 perceived receiving Task Appreciation as most important at Time 2, and Time 4. Task Challenge was perceived to be satisfactory and important from the athletic trainer, with Time 4 receiving moderate levels of both. The importance of receiving Reality Confirmation was greater than the participant's satisfaction only at Time 2. Emotional Support received high levels of satisfaction and importance equally at Times 1, 2, and 4. Emotional Challenge was perceived to have been provided at Time 2, Time 3, and Time 4. However, the importance of receiving this support was greater than the level of satisfaction at Time 3. The participant expressed these findings during the exit interview as well. He felt that the athletic trainer provided the most amount of support during rehabilitation and was mainly informative. He also felt, "while injured social support is 10 times more important than any other time."

Transition into Play.

Participant 001 did not experience fear or anxiety when he returned to play. He said, “I was worried but...I did not want to injure it again. Consciously I was not [hesitating], but I might have favored my right side.” He further explained that although the thought was in his mind, it did not affect his play and that fear or anxiety was not present.

Relationship Between Social Support and Transition into Play.

There may be a positive relationship between being moderately to highly satisfied with the social support given and not experiencing fear or anxiety when returning to play. Another positive relationship that was noticed was receiving most of the support from the Athletic trainer during rehabilitation, being highly satisfied with it, and not experiencing fear when returning to play.

Relationship Between Social Support and Self-Confidence.

There may be a positive relationship between receiving and being satisfied with the social support needed, and sustaining prior levels, or increasing the levels of self-confidence. The participant demonstrated both high levels of self-confidence when he returned to play and satisfaction with the social support perceived to have received.

Participant 002

Initial contact had been made with Participant 002 several weeks prior to starting the intervention with him. He had fractured his left radius while diving for a baseball and was in a cast for approximately 6 weeks, while not practicing or participating in therapy. Once removal of the cast approached, contact was made again. Participant 002's left wrist was then put into a soft splint and he began strengthening exercises. From this

point rehabilitation was estimated to last 2 weeks.

Sport Imagery Evaluation.

During the exit interview, Participant 002 mentioned he had very little previous experience with relaxation and imagery. Nonetheless, Participant 002's imagery skills, as measured by the SIE, were moderate to high and remained fairly stable across time and all four situations. Situation 4, recalling a peak performance, consistently scored the highest among all four situations. The other three situations, practicing alone, practicing with others, and playing in a contest, respectively, were very similar in imagery abilities. During the last administration, after completion of rehabilitation (Time 5), situation 1 slightly decreased with a score of 26 while situations 2 and 3 remained fairly stable.

Participant 002 felt the intervention helped him return to full play status. “...During the time when I couldn't do anything it helped to kind of think about what I was going to do when I got back out on the field. Prepare me a little better than just going out there...the imagery was one of the main things I thought worked.” He mentioned the imagery sessions were easier to follow with the audiocassette tape or the researcher, than if he were to do it on his own. Also, the imagery that helped him the most were the four situations measured by the SIE, “...because I was specifically thinking about what I was doing, fielding or hitting.”

Trait and State Sport-Confidence.

The participant's trait sport-confidence was measured at the initial meeting (Time 1) with a high score of 102 out of a possible 117, as well as one week post completion of rehabilitation (Time 4) with a score of 113. The average of the two administrations ($M =$

107.5, SD = 5.5) was used as a baseline for Participant 002's trait sport-confidence. During the exit interview, Participant 002 rated his confidence prior to injury as an eight or nine on a scale of 1 to 10. However, during rehabilitation, his confidence did not lower until he began practicing more with the team. "...it did not affect my confidence until right now [when the cast came off and physical activity increased]. I got to kind of build myself back up. I am coming back into it; I got to build my confidence back up." He rated his confidence as a six or seven in this situation. This is reflected in the quantitative data, measured by the M-TSCI and M-SSCI, due to the intervention beginning once the cast was removed.

Participant 002's state sport-confidence was measured across four times throughout rehabilitation and revealed scores that were slightly lower than the averaged trait sport-confidence score at Time 1 and Time 2. Participant 002's state sport confidence scores increased through Time 3, then slightly decreased at Time 4, however, is still higher than the averaged trait sport-confidence score.

Head Coach Social Support.

Prior to the onset of Participant 002's injury, the head coach was not perceived as providing all of the different types of social support, except Emotional Challenge and Reality Confirmation, equally. Throughout rehabilitation, the head coach provided Listening Support across time and was perceived to be very satisfactory and important. Task Appreciation was perceived to be provided by the head coach as more satisfying at Time 1 and Time 2. Task Challenge was highly satisfactory and important during both Time 1, and Time 3. Participant 002 perceived receiving very satisfactory and important Emotional Support from the head

coach throughout rehabilitation, however, the lowest satisfaction occurred at Time 3. Participant 002 did not perceive the head coach to be providing Emotional Challenge, or Reality Confirmation during rehabilitation. During the exit interview, the participant expressed receiving Listening and Emotional Support from the head coach the most during rehabilitation, "My head coach really did...provide me with support. Basically him, he was the main guy."

Assistant Coach Social Support.

The assistant coach was perceived as providing Participant 002 with Listening Support, Task Appreciation and Task Challenge prior to the onset of injury. Listening Support was most satisfactory (M = 4) while the other two types of support were equally satisfactory (M = 3.5). During the entire rehabilitation from the injury, Participant 002 perceived receiving Listening Support from the assistant coach across time, with Time 3 showing the lowest satisfaction. Task Appreciation was highly satisfactory and important during Time 1, and Time 2, with the highest satisfaction found at Time 1. Emotional Support was perceived as being provided at Time 1 and Time 2 only. Participant 002 perceived this type of support to be very important at Time 2, and highly satisfactory during both administrations. The assistant coach was not perceived as providing Task Challenge, Emotional Challenge, or Reality Confirmation during rehabilitation. The qualitative interview supported the M-SSS findings for the assistant coach as it did for the head coach.

Athletic Trainer Social Support.

Prior to injury occurring, the participant perceived the athletic trainer as only giving Listening Support - however, he was highly satisfied. During rehabilitation the athletic trainer was perceived as providing very sat-

isfactory Listening Support across all four times with scores of 5. Participant 002 perceived receiving Task Appreciation was very satisfactory and important at Time 1, and Time 3, however, was not as high at Time 2. Task Challenge was deemed very satisfactory and important from the athletic trainer equally at Time 3, and Time 4. The participant perceived to receive Emotional Support from the athletic trainer at Time 1, Time 2, and Time 3, which had the lowest satisfaction and importance. The athletic trainer did not provide Emotional Challenge or Reality Confirmation. The participant expressed these findings during the exit interview. The athletic trainer "...kept me going and told me, if I thought it was taking forever, to just stick with it. He just helped me get through it..." Participant 002 also perceived receiving Listening Support from his family members and friends. The participant also mentioned that receiving social support was more important during the injury than it was prior to becoming injured.

Transition into Play.

Participant 002 did not express having fear or anxiety returning to play during the exit interview. He stated, "No, I wasn't really afraid. Cause I knew...I have done the necessary things in rehabilitation...I did not hold back." He continued to say that when the cast was first removed, there was a little bit of concern, however, he was confident and did not hold back or hesitate.

Relationship Between Social Support and Transition into Play.

During the exit interview he mentioned that his athletic trainer and head coach were providing him with the support he needed, which resembled the data gathered through the M-SSS. There may be a positive relationship between being moderately to highly satisfied with the perceived social support

and not experiencing fear or anxiety when returning to play. Another positive relationship, similar to that of Participant 001, was perceiving the athletic trainer as providing most of the support during rehabilitation, being highly satisfied with it, and not experiencing fear when returning to play.

Relationship Between Social Support and Self-Confidence

A positive relationship may have occurred between perceiving to receive and being satisfied with the social support needed, and sustaining prior levels, or increasing levels of self-confidence. The participant demonstrated, and mentioned through the exit interview, having high levels of self-confidence when he returned to play and satisfaction with the support he received.

Discussion

The research questions examined by this study were supported by the results obtained quantitatively, qualitatively as well as through the completion of the daily imagery logs. The information from these logs contributed to triangulation of the data. The purpose of this study was to assess if a mental training program could affect the post-injury recovery process, perceived social support as measured by the Modified Social Support Survey, and self-confidence as measured by the Modified Trait and State Sport-Confidence Inventory as well as qualitative questions.

Adequate training in the use of relaxation and imagery may help to improve the benefits received from the intervention. The participants in this study had different imagery experiences; however, with the imagery practice sessions this did not seem to be a factor. The participants' imagery skills were relatively similar in that by the end of the mental skills training program, their imagery

skills remained stable or improved when compared to the beginning of the program. Both participants showed higher imagery skills when recalling a peak performance in comparison to the other three situations. Participant 001's imagery skills varied from Time 2 through Time 4. However, by providing the participant with Listening Support during the intervention and through the qualitative questions, there was a factor that may have influenced his imagery scores. At the time Participant 001 completed the SIE, Participant 001 stated, he had been dealing with conflict between other team members and he had trouble concentrating on imagery those times. Had he not been mentally distracted with other thoughts, his SIE scores may have resembled Time 1 and Time 5, thus more stable scores across time.

Both participants attributed 30 - 40 % of their recovery from the injury to the mental training program. This supported Carroll (1993) with the intervention group attributing 26% of rehabilitation to the imagery intervention and is in agreement with previous research that found imagery to positively contribute to the injury rehabilitation process (Durso-Cupal, 1998; Williams, Rotella & Scherzer, 2001; Zinsser et al., 2001). One of the participants stated, "It helped my recovery...I don't know how it works...I just feel tingly and I just know that something is going on that was not going on before I started imagery." Both participants expressed an interest in using these techniques again in the event of another injury.

Both participants expressed being concerned, but not having a fear to return to play. Participant 001 had played in his first pre-season game a few days prior to the exit interview and was not hesitant or experienced fear of any kind. A difference between the two participants was the timing of

the injury. Participant 001's injury occurred during the pre-season, while Participant 002's injury occurred at the beginning of the regular season. Injury onset for both participants occurred at a time where there was typically less pressure on the athlete to recover quickly. As Crossman (2001) mentioned, the timing of the injury may influence the injury coping process and the athlete may experience more psychological effects the longer rehabilitation takes (Wiese-Bjornstal et al., 1998).

Other factors may have contributed to the results of this study, thus warranting further exploration. First, Participant 001 was a senior in college, while Participant 002 was a freshman. This could have been a motivating factor for Participant 001 to recover fully and quickly. Whereas for Participant 002, this could help to explain his lower level of concern while he was in the cast. The number of previous injuries may also have affected the results. While the injury experience for Participant 001 was new and at times "tedious", he had experienced more than six previous injuries. Thus possibly having a greater understanding of what it takes to recover successfully. Participant 002 also knew what to expect from the rehabilitation process having gone through it once before with a similar injury.

If an athlete returns to competition, without being psychologically prepared or ready to do so, fear of re-injury may result in anxiety and negative cognitive appraisals, which may increase the chances of re-injury (Williams & Andersen, 1998). Flint (1998) stated that effective recovery might be hindered by the dual role of the mind/body relationship and by not having trust or confidence in individual capabilities. The influence of cognitive appraisals has been documented as having an affect on the physical outcome of

rehabilitation. Future research may focus attention on how injured athletes may enhance the rehabilitation process through the systematic use of mental skills training. Future studies should also include a more diverse sample by including both male and female athletes from team and individual sports. Also, the timing of the injury and the severity levels should be further explored to better understand the effects on the injury rehabilitation experiences.

The results of this study may not be fully attributed to the intervention and must be taken with caution. These results indicated associations and similarities between the factors and participants, however, cause and effect cannot be determined. The inclusion of control groups may increase the understanding of the effects of mental skills training during rehabilitation from an injury. However, Flint (1998) recommended that severity levels and the manner in which severity is determined be consistent so that the results can be comparable between groups and studies.

Considering the number of athletes who become injured, this area of research provides possible psychological rehabilitation skills that athletes can implement to enhance the rehabilitation process. When dealing with injured athletes, imagery may help control pain, reduce anxiety levels, and develop positive attitudes as well as self-awareness, thus contributing to the healing process. Crossman (2001) stated the type of imagery most beneficial during the immediate post injury phase of rehabilitation is body rehearsal. This technique involves healing images, which allow athletes to have control by visualizing the healing process. This was exemplified with both participants in this study. Also, coping rehearsal and body rehearsal, that follows physical recovery, is

best suited for the early to progressive rehabilitation stages. During the last stage, advanced rehabilitation, mastery rehearsal that mimics physical recovery may help with the return to sport.

Athletic trainers may also benefit from this type of research and apply the psychological skills during physical therapy. For example the participants thought the most important support during injury came from the athletic trainers. The biggest variable lacking from Participant 001 in the training room was the lack of feedback on progression from the athletic trainer throughout therapy. More feedback during the week(s) might help the athletes feel more involved in the rehabilitation process. It may also help athletes to know specifically why they are still sitting on the bench even though they feel better. This may help prevent re-injury due to over exertion of activities prior to approval by the medical staff. The athletic training staff could help reduce or maintain pain, inflammation and swelling that typically accompanies injury through the systematic relaxation of muscle groups in all stages of rehabilitation.

The information in this study also provides coaches and other support providers with helpful information on providing social support during an injury. Both participants expressed receiving social support during an injury as more important than prior to becoming injured. Coaches, head and assistant, could enhance the injury process for athletes by knowing what kinds of support are needed and when to give it. For example one participant said it was important to know that his head coach was not mad at him. Confirmation from the coaching staff could lessen any guilt felt by the athlete or frustration felt because of mixed signals. The other participant expressed importance in receiv-

ing support from the coaching staff. “...Just to know that they cared and they weren’t forgetting about me because I was injured...to know that they still cared about my well being.” The injured athlete is already experiencing a wide range of emotions because he/she is not actively participating. The more stress that can be reduced through communication could benefit the overall rehabilitation process. Communicating prop-

erly is an effective method of showing care and support (Hardy, Burke, & Crace, 2004).

The results from this study are also socially valid, as both participants perceived the intervention as beneficial to the rehabilitation process by providing them with a skill they could control and perceived the intervention as improving their physical recovery.

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Appendix A
Exit Interview Guide

1. Please describe, in detail, the impact injury had on you personally. (i.e., confidence, relationships with non-teammate, etc.)
Probe: How did it make you feel?
2. Now describe the impact injury had on you as an athlete. (i.e., performance, confidence, relationships with teammates, etc.)
3. Think back prior to your injury, how would you describe your self-confidence in sport? If you had to rate it on a scale of 1 to 10, where would it be?
4. How do you think your self-confidence in sport was affected after the injury occurred?
5. Please describe the physical therapy experience in relation to this injury.
Probe: What was most difficult? What were good/bad days like?
6. Describe what kind of information your athletic trainer gave you as you went through physical therapy. Describe what information you would have liked to receive?
Probe: Information about the injury or rehabilitation exercises, and progression through rehabilitation, etc.?
7. Now let's talk about social support. What kind(s) of support do you think were most beneficial during your rehabilitation? Can you describe what made that type of support(s) useful for you?
Probe: tangible, listening, task, emotional?
8. Who do you feel was providing you with the social support you needed? Can you describe who was providing each type of support?
Probe: coaches, athletic trainers, teammates, family, or friends?
9. Can you describe if receiving social support was more important to you before the injury occurred, during rehabilitation, or both equally? Why?
Probe: Do certain people provide support at different times?
10. Looking at your responses on the social support survey, I noticed you did not receive _____ support from _____ pre-injury/during rehabilitation. Can you reflect on that?
11. Now let's switch to relaxation and imagery. Were you familiar with the relaxation and imagery techniques used before participating in this study?
Probe: Describe your experiences with the techniques.
12. Please describe your experience with the relaxation and imagery sessions used in this study.

Probe: Were the relaxation and imagery sessions difficult/easy?
 What did you like best? What did you like least?
 Did the sessions help rehabilitation?
 Which parts of the sessions with me were most helpful?
 Can you think of any images used that were most helpful to you?

13. Did you use imagery on your own at all throughout rehabilitation?
 Probe: If so when or how often?
14. If given the opportunity to go back in time, would you use relaxation and imagery during rehabilitation, having had this experience? Why or why not?
15. Do you think you will continue to use relaxation and imagery in other aspects of sport?
 Probe: If so what aspects could benefit?
16. How do you think the relaxation and imagery interventions helped your recovery process?
 Probe: Can you estimate what percentage of your recovery is due to physical therapy and imagery?
17. On your first day back to play, were you afraid of re-injury?
 Probe: Rate the level of anxiety about re-injury on a scale of 0 (*having no worries*) to 10 (*having great amounts of worries*).
 Describe any thoughts or worries you had.
18. Presently, are you concerned or afraid of re-injury at this point?
 Probe: Rate the level of anxiety about re-injury on a scale of 0 (*having no worries*) to 10 (*having great amounts of worries*).
 Describe any thoughts or worries you had.
19. Is there anything else you would like to add that I have not covered regarding any of the topics we spoke about today?

Appendix B
Relaxation and Imagery Rehearsal Script

[This script will be modified for each participant's individual needs. Type of injury, recovery status and imagery ability will be the factors contributing to changes of the script. As rehabilitation progresses, the script will also progress accordingly.]

Please sit or lie down comfortably with your legs and arms unfolded, and your eyes closed. Start to become aware of your breathing and how your body feels at this moment. Inhale through your nose and exhale through your mouth, taking slow, deep breaths. Let any distracting thoughts or sounds enter and exit your mind freely, do not try to force any thoughts. I am going to guide you through your next breath, inhaling slowly for a count of four, hold for a count of two and finally release for a count of four. Ok, Inhale **[count in seconds]** 1, 2, 3, 4, hold 1, 2, and release 4, 3, 2, 1. **[repeat]** For the next couple of minutes I want you to continue this type of breathing we just practiced on your own. This time as you inhale say the word "healing" to yourself, and as you exhale say the word "relax" to yourself. **[pause 2 minutes]**

Good, continue that process of breathing, and with each exhalation feel your muscles become more relaxed as any tension is being released. Scan your body for any tension or discomfort. As you exhale, picture any tension, pain, conflict escaping through your mouth. Allow your muscles to become warm and relaxed.

Focus your attention now on your **[say injured part]**, notice how it feels while you continue to breathe slowly repeating the words "healing" on the inhale and "relax" on the exhale. Imagine the **[specific injury of ligaments or muscles, etc.]** that comprise(s) your **[say injured part]**. Focus on this area in particular and become aware of how it feels right now. You may or may not experience tingling around the area or some discomfort, and that is OK. It is natural to feel sensations while doing imagery. Imagine oxygen and blood flowing to the injury area, taking away any damaged cells or tissue. Take this image and refocus on your breathing. As you inhale deeply, oxygen and blood are surrounding your **[say injured part]**, and as you exhale any damaged cells or tissues are being removed. Continue this process on your own for the next couple of minutes, enabling your body's ability to heal itself. **[pause 5 minutes]**

Good, focus again on your breathing. Inhaling for a count of four, holding for a count of 2 and then exhaling for a count of four. This time, I would like for you to say the word "revitalize" as you inhale and the word "calm" as you exhale to yourself. Refocus your attention back to your whole body and the way it feels right now. You are taking an active part in your recovery and will heal a little more each time you use imagery. **[pause 10 sec.]** I am going to count back from the number five, and with each step closer to the number one, I want you to become more aware of your surroundings and the noises around you. 5 **[4 sec.]**, 4 become more alert, 3 wiggle your fingers and toes, 2 when you are ready you can open your eyes, 1.