MASTERS SWIMMERS' PERCEPTIONS OF COACHING

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Abstract

Athlete satisfaction is often a direct result of coaching behaviours (Iso-Ahola & Hatfield, 1986). Effective coaches adapt to various antecedents such as level of competition, age, gender, and ability of athletes; there is not a 'one size fits all' model of coaching (Cushion, 2010). Although coaching science research has focused on many different levels of competition, one area that has received scant attention is coaches' of masters swimmers. This is important since only 15% of Canadian adults meet the current Canadian exercise guidelines (Stats Canada, 2013) and 75% of seniors are physically inactive (Warburton, Ashe, Miller, Shi, & Marra, 2009). Although athlete motivation is determined largely by their own beliefs, thoughts, and values, coaches represent an important motivational factor (Deci & Ryan, 2002). The purpose of this study was to explore masters swimmers experiences of coaching. In particular, this study examined the journey of masters swimmers in sport and identified the various coaching characteristics and behaviours that they felt promoted ideal training and competition environments that led to improved social, health, and performance outcomes. Qualitative descriptive methodology was used to guide the current analysis and Braun and Clarke's (2006) guidelines of thematic analysis were used for identifying, analyzing, and reporting themes within the data. Results revealed three themes which were called *master athlete evolution, coaching knowledge and behaviours* and *outcomes.* Despite the differences in career progression and experience of all the swimmers, several common coaching preferences emerged. These coaches established environments where the skills and values taught from their sport were promoted and encouraged in both sport and in life. Creating these positive environments was not about *what* the coaches did, but rather *how* they did it. The current coaches fostered environments that provided their athletes with positive social, health, and performance outcomes. This was accomplished through the coaches' influence on their athletes' motivation through their communication, organization, and teaching. Overall, these findings have provided a greater understanding of the preferred coaching behaviours of masters swimmers. Future studies investigating the influence of coaching on masters athletes or the coaching preferences of masters athletes may use these findings to advance research in this domain.

Résumé

La satisfaction des athlètes, est souvent directement liée, aux actions et comportements des entraîneurs (Iso-Ahola & Hatfield, 1986). Les entraîneurs qui ont un impact positif, savent s'adapter aux antécédents de chaque athlète tels que : le niveau de compétition, l'âge, le sexe et les habilités de leur athlète. C'est pourquoi, il n'y a pas qu'un seul modèle d'entraînement qui convienne à tous (Cushion, 2010). Même si, ces dernières années, beaucoup de recherches scientifiques sur l'entraînement ont porté sur l'impact des différents niveaux de compétitions, un domaine qui a été grandement négligé est l'entraînement des athlètes maîtres. Ceci est primordial, puisque seulement 15% des adultes canadiens répondent aux critères canadiens d'exercices (Stats Canada, 2013) et 75% des personnes de l'âge d'or sont physiquement inactives (Warburton, Ashe, Miller, Shi, & Marra, 2009). Même si la motivation de l'athlète est grandement déterminée par ses propres valeurs et croyances, les entraîneurs jouent aussi un rôle important en tant que motivateur (Deci & Ryan, 2002). C'est pour cette raison que le but de cette recherche est d'identifier et d'expliquer les caractéristiques et les actions que les athlètes maîtres préfèrent de leur entraineur, basé sur les descriptions de maîtres-nageurs. La méthode qualitative descriptive a été utilisée pour guider la présente analyse. Six athlètes, maîtres nageurs décrivent individuellement leur style d'entraînement préféré et les caractéristiques recherchées chez leur entraîneur dans ce sport. Les critères d'analyse thématiques de Braun et Clarke (2006) ont été utilisées pour identifier, analyser et mettre en place des thèmes à travers les informations recueillies. Les résultats ont dévoilé trois thèmes : *l'évolution de l'athlète maître, les connaissances et comportements de l'entraîneur et les résultats*. Malgré les différences dans la progression de carrière et dans l'expérience de tous les nageurs, plusieurs préférences communes de style d'entraînement sont ressorties. Ces entraîneurs ont mis en place des environnements dans lesquels les habilités et les valeurs enseignées à travers leur sport ont été promues et encouragées dans le sport et dans la vie. Pour créer ces environnements positifs, l'importance n'était pas dans ce que les entraîneurs ont fait, mais plutôt comment ils l'ont fait. Donc, l'importance n'est pas dans le *quoi*, mais bien dans le *comment*. Les entraîneurs concernés ont développé des conditions où l'athlète bénéficie de plusieurs aspects positifs sur sa santé, sa performance et sa vie sociale. Ces réalisations ont été obtenues grâce à l'influence que les entraîneurs ont eu sur la motivation des athlètes, à leurs styles de communication, d'organisation et d'enseignement. Dans l'ensemble, les résultats de cette étude aide à mieux comprendre les comportements que les maîtres nageurs préfèrent de leurs entraîneurs. Les résultats de cette recherche, à propos de l'influence des entraîneurs sur les athlètes maîtres et de leur type d'entrainement préféré, vont pouvoir servir de base pour d'autres recherches dans ce domaine.

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CHAPTER 1

Introduction

By 2026, one in five Canadians will have reached age 65 (Public Health Agency of Canada, 2009). According to recent statistics, only 15% of Canadian adults meet the current Canadian exercise guidelines (Stats Canada, 2013) and 75% of seniors are physically inactive (Warburton, Ashe, Miller, Shi, & Marra, 2009). Examining the costs associated with physical inactivity among seniors, researchers found those who were physically inactive had more hospitalizations and healthcare visits (Warburton et al., 2009). Clearly Canadians have a vested interest in getting the adult population active and involved in physical activity and sport.

Understanding the motivation and stereotypes surrounding aging and involvement in sport and physical activity helps understand and explain adult participation levels. Cerin, Leslie, Sugiyama, and Owen (2010) reported that lack of motivation, poor health, and lack of facilities were associated with nonparticipation in leisure-time physical activity among older adults. These factors are more of a concern when combined with negative North American attitudes toward aging (Baker & Horton, 2011; O'Brien Cousins, 2000). Despite these barriers, there is a group of adult athletes promoting a new ideal of athletic involvement - masters athletes.

The history of masters athletics dates back to the 1960s in Europe, where veteran long distance runners held marathons for older athletes (Kusy & Zielinski, 2006). Interest in these competitions quickly imported to North America, leading to the formation of the USA masters Track and Field Team in 1965 (World Masters Athletics, 2012) and the Metro Toronto Fitness Club in 1964 (Canadian Masters Athetics, 2010). As popularity and enthusiasm in masters athletics continued to grow, so too did the level of competition. By 1975, the first World Championships for masters athletes were held in Toronto, Canada in which 1,427 athletes

competed from 32 countries across the globe (CMA, 2010). Since that time, international competitions have continued to be held at various locations around the world providing athletes 35 years of age and older with the opportunity to participate in sport at a highly competitive level.

The masters' sport of swimming has continued to grow in popularity since its inception in the 1970s. After its first official event in Texas, the United States Swimming organization was created, followed closely by the first Canadian masters swim club in 1971 (Weir, Baker, & Horton, 2010). Today, swimmers belong to regional clubs and may choose participation as a competitive venture or simply as a social activity. The competitive stream involves competitions that give participants the opportunity to compete against members from other clubs. There are also provincial swim meets, National swim meets, and international swim meets. Currently in Canada, masters swimming operates under the umbrella organization of Masters Swimming Canada (MSC), an incorporated body parallel to Swim/Natation Canada, which currently provides the link to FINA, the body responsible for International Events. Registration is through the Provincial masters Organization, which is responsible for local and provincial competition and club development.

The first World Masters Games (WMG) were held in Toronto in 1985. Swimming is currently considered an *option sport* at the WMG. The Games, and all competitions, are open to anyone. Beyond the age requirement and membership in that sport's governing body, there are no competition qualification requirements. In addition, participants pay their own travel, expenses, and registration fees. Masters competition is typically organized into five- or ten-year age groupings (40-44, 45-49, etc.) starting from 30-35 years of age, although this can vary by sport and competition.

Coaching research has grown tremendously over the past few decades with a documented 976 coaching articles published from 1970-2009 (Gilbert & Rangeon, 2011). Recently, Gilbert and Rangeon isolated coaching effectiveness and coach development as the two most dominant themes in coaching research. Despite the increase of coach research, masters coaching is a highly underrepresented topic (Gilbert & Rangeon, 2011). To date, research on masters athletes has focused on the relationship between various physiological aspects and performance (Darr, Bassett, Morgan, & Thomas, 1988; Fell & Williams, 2010; Maharam, Bauman, Kalman, Skolnik, & Perle, 1999; Tarpenning, Hamilton-Wessler, Wiswell, & Hawkins, 2004) and the relationship between sport performance and age-related decline (Baker & Schorer, 2010; Charness, 1981; Krampe & Ericsson, 1996; Salthouse, 1984). Specifically, some of the physiological aspects that have been researched include recovery from training and competition (Darr et al., 1988; Fell & Williams, 2010), age related loss of VO_2 max (Hawkins, 2010; Trappe, Costill, Vukovich, Jones, & Melham, 1996), and the age-associated decline in peak muscular power (Anton, Spirduso, & Tanaka, 2004; Pearson et al., 2002). Specific to sport performance and age-related decline, research has examined the general rate of performance decline (Bortz & Bortz, 1996; Krampe & Ericsson, 1996) and the performance decline of cognitive skill related to sport (Baker & Schorer, 2010).

Psychologically, the focus of research on masters athletes has examined understanding their motives for sport (Dionigi, 2002; Hastings, Kurth, Schloder, & Cyr, 1995; Newton & Fry, 1998; Stevenson, 2002) and how masters sport aids in coping with the aging process (Dionigi, 2010; Grant, 2001; Hodge, Allen, & Smellie, 2008; Horton, 2010). More specifically, research has suggested that masters athletes competed for a variety of personal reasons, including enjoyment, desire for personal achievement and winning, social networking, and health and

fitness reasons (Dionigi, 2002; Hastings et al., 1995; Newton & Fry, 1998; Stevenson, 2002). From a coping perspective, research has revealed that participation in masters sport assisted in challenging some of the negative stereotypes of aging in society (Dionigi, 2010; Grant, 2001) and in navigating through the aging process (Dionigi, 2010; Grant, 2001; Hodge et al., 2008; Horton, 2010).

Player satisfaction is often a direct result of coaching behaviours (Iso-Ahola & Hatfield, 1986). Effective coaches adapt to various antecedents such as level of competition, age, gender, and ability of athletes; there is not a 'one size fits all' model of coaching (Cushion, 2010). Several theories have emerged that postulated how various antecedents and coaching behaviours affected athlete satisfaction. For example, Smoll and Smith's (1989) Mediational Model of Leadership looks at the interplay between coach behaviours, athlete perception and recall, and athletes' evaluative reactions on coaching effectiveness. Knowledge about athletes' preferences improves coaches' awareness about how to successfully foster positive psychological development for them. Another important model in the coaching literature is Chelladurai's Multidimensional Model of Leadership (1978). According to this model, effective leadership is dependent on the relationship between athletes' interpretation of actual coach behaviour, preferred coach behaviour, and situational contexts. This means that a coach who does not acknowledge the unique contextual factors of masters swimmers (age, time restraints, expectations, etc.,) and adjust their behaviours accordingly, might not facilitate successful outcomes from the view of their athletes. Both of these models recognize that the athletes' perceptions of their coaches' behaviours and characteristics affect their performance and satisfaction with their coach. In addition, they identify the importance of contextual variables (e.g., age, gender, etc.) affecting the athletes' experience. Research indicates athletes' preferences

of coaching behaviours change as they grow and mature (Chelladurai & Carron, 1983). By situating this study within the frameworks of the Mediational Model of Leadership (Smoll & Smith, 1989) and the Multidimensional Model of Leadership (Chelladurai, 1978), this study facilitated a better understanding of the coaching characteristics and behaviours masters swimmers preferred, and how they fostered a better athletic experience among these athletes.

Purpose of the Study

The purpose of this study was to explore masters swimmers experiences of coaching. In particular, this study examined the journey of masters swimmers in sport and identified the various coaching characteristics and behaviours that they felt promoted positive outcomes.

Research Questions

How does the athlete's background and individual characteristics influence their decision to participate in masters swimming? According to master athletes, what are the main roles and responsibilities of their coaches? Lastly, what coaching behaviours and characteristics lead to ideal training and competition environments?

Significance of the Study

Coaching science research has focused on many different levels of competition. One area that has not received a lot of attention is coaches' of masters swimmers. The findings from this study may provide masters coaches with a better awareness of their athletes' preferences. As a result, coaches now have an opportunity for a more in depth understanding of how to coach these athletes. Results from this study could also serve to strengthen the development of workshops designed by the National Coaching Certification Program to aid coaches in developing their competencies related to the specific needs of masters Athletes. This type of resource would be similar to the *Coaching Athletes with a Disability* module which was launched in 2005 and gave

coaches the resources to attend to the specific needs of athletes with a disability (Coaching Association of Canada, 2012). Given the importance of masters sports in assisting individuals to cope with the aging process (Dionigi, 2010; Langely & Knight, 1999; Roper, Molnar, & Wrisberg, 2003), and the growing interest and participation in masters sports (World Masters Games, 2012), research that can provide practical and theoretical knowledge in this domain is warranted.

Limitations

The following limitations were identified in this study:

1. Results may only be indicative of current masters athletes experiences.
2. Results may only be indicative of male athlete's perceptions of coaching.
3. The results may only have implications within the sport of swimming.
4. As this study pertained to masters sport in Canada, possible cultural differences may not emerge that may be present in masters sport in other countries.

Operational Definitions

For the purpose of this study, the following definitions were used:

Masters Athlete: An age designation; it does not denote a level of proficiency or a particular achievement. The International Federation of each sport imposes their own minimum age requirements. Participants are generally 35 years of age and above, although some sports will allow athletes even younger than 35 to participate.

Masters Swimmer: In Canada, any person 18 years of age or older, with no upper age limit, can participate in masters Swimming. There are more than 6,000 masters Swimmers in Canada with more than 2,700 in Ontario (Masters Swimming Ontario; MSO).

Swimming Canada: Swimming Canada (https://www.swimming.ca) serves as the national governing body of competitive swimming. masters Swimming Canada operates within the umbrella of Swimming Canada.

Masters Swimming Canada: Masters Swimming Canada (http://mymsc.ca/index.jsp) is a club based organization that maintains a list of all masters clubs in the country.

Masters Coach: In this study, masters coaches must have a minimum five years of coaching athletes at the masters level. These coaches must employ structured and rigorous training perspectives in order to prepare their athletes for competition.

CHAPTER 2

Literature Review

This chapter consists of three main sections. To begin, information on successful aging that includes both the psychological and physiological characteristics of masters athletes will be presented. The second section will examine the theoretical frameworks used in the current study. The third section will examine the empirical literature focusing on coaching science, including Gilbert and Trudel's (2004) analysis of coaching literature.

Masters Athletes

Successful Aging

Aiding in the process of reinventing perceptions about physical activity and sport have been some impressive Olympic performances by older athletes. One example is Dara Torres, who won three silver-medals in swimming at the 2008 Beijing Olympics after a brief stint competing as a masters athlete. Another example is kayaker David Ford. At age 37, Ford invested his own money and placed sixth in Beijing after being told that he was too old to receive funding in Canada. Finally, former NHL defenseman Chris Chelios played professional hockey until retiring at age 48. These athletes, and their achievements at the highest levels in athletics, demonstrate that elite performance is possible despite advancing age. Their performances challenge many stereotypes of aging.

Recently, the masters athlete has been identified as someone who represents successful aging (SA) (Copper, Powell, & Rasch, 2007; Hawkins, Wiswell, & Marcell, 2003). According to Rowe and Kahn (1998), SA involves low probability of disease and disease-related disability, high cognitive and physical functional capacity, and active engagement with life. Masters athletes maintain higher-than-average levels of physical activity throughout the lifespan

(Hawkins et al., 2003), and this population generally represents some of the healthiest older adults (Shephard, Kavanaugh, Mertens, Qureshi, & Clark, 1995). Understanding these athletes from a psychological and physiological perspective could offer insights into how to motivate and stimulate older adults to be more physically active.

Psychological Factors

Personality can be defined as the underlying, relatively stable psychological structures and processes that organize human experience and shape a person's actions and reactions to the environment (Lox, Martin Ginis, & Petruzzello, 2010). Although some believe that personality is consistent in that it is relatively stable over time and across situations (Costa & McCrea, 1994; McCrea & Costa, 1999), others believe that traits are *multiply determined* meaning that factors, such as the individual's social environment, can alter personality (Haan, Millsap, & Hartka, 1986; Helson, Jones, & Kwan, 2002). The latter theory suggests that there is the potential for personality changes as people age. Research looking at the Big Five personality trait dimensions (Conscientiousness, Agreeableness, Neuroticism, Openness, and Extraversion) have concluded that Conscientiousness and Agreeableness tend to go up during adulthood, Neuroticism tends to go down, Openess showed mixed results, and Extraversion shows no general pattern of change at the factor level (Roberts, Robins, Trzesniewski, & Caspi, 2003). These results are an important consideration for masters coaches because if indeed these characteristics of personality change as people age, they could affect the preferences of masters swimmers regarding coaching behaviours and characteristics.

The number of masters athletes around the globe continues to increase (Baker, Meisner, Logan, Kungl, & Weir, 2009). Since its debut in 1985, participation at the WMG has increased from 8,305 to 28,676 participants at the most recent WMG in 2009 (WMG, 2012). In an attempt

to understand why participation in masters athletics continues to increase, researchers have investigated the sources of motivation reported among this cohort. Deci and Ryan's (2002) self-determination theory is a prominent framework for understanding motivation. This theory postulates that intrinsic motivation, extrinsic motivation, and amotivation are needed to make sense of a full range of motivational processes (Vallerand, 2007). Intrinsic motivation refers to performing an activity for itself and the pleasure and satisfaction derived from participation (Deci, 1971). Extrinsic motivation refers to doing an activity as a means to an end and not for its own sake (Vallerand, 2007). Amotivation is the absence of any intrinsic or extrinsic motivation.

Research has revealed that extrinsic factors played an important role influencing participation among masters athletes (Dodd & Spink, 1995; Ogles & Masters, 2000; Summers, Machin, & Sargent, 1983). For example, Summers and colleagues found that older marathon runners (41 to 61 years) were more concerned with weight control and cardiovascular endurance than younger marathon runners. Dodd and Spinks found that older masters athletes competing in swimming and track and field (60 years and older) were more extrinsically motivated and had higher need for social approval than younger groups. Ogles and Masters found that older runners (aged 50 years and older) were mainly motivated by health reasons, weight concerns, life meaning, and need for affiliation with other runners, whereas younger runners (aged 20 years and less) were mainly motivated by goal achievement and competition. Taken together, these results demonstrate that masters athletes have a unique motivational profile in comparison to non-masters athletes, something which might influence their preferred coaching behaviours and characteristics.

In terms of masters swimming research, several trends have emerged regarding athletes' sources of motivation. Tantrum and Hodge (1993) surveyed 40 masters swimmers ranging in age

from 22 to 70 years old from Australia and found that staying in shape, having fun, being fit, and improving skills were reported as the most important motives. In a qualitative study, Stevenson (2002) looked at 29 masters swimmers (17 men and 12 female) aging from 21 to 57 years of age from eastern Canada (recreational and competitive), and found that participants sought out participation for the activity itself, for structured workouts, and for the new social relationships. Another qualitative study that interviewed 28 masters athletes (15 women and 13 men) aged 60-69, revealed four main trends explaining why older adults competed in sports (Dionigi, 2002). The first two themes centered around competition. Despite the fact that many participants were friendly and social off the field, they were seriously competitive on the field. The third and fourth themes dealt with health and enjoying the benefits of physical activity, while maintaining their aging bodies.

Although there is evidence that the image people have of seniors is changing (Ory, Hoffman, Hawkins, Sanner, & Mockenhaupt, 2003), seniors themselves tend to believe negative stereotypes about themselves (Montepare & Zebrowitz, 2002). As a result of internalizing these beliefs, 'disidentification' can occur among many athletes as they get older. Disidentification involves removing domains that can harm one's self-identity (Steele, 1997). Aging athletes, when faced with negative stereotyping regarding their physical and cognitive functioning, may start to avoid certain activities that challenge these skills and be less motivated to participate in them (Horton, 2010). These stereotypes can also manifest into 'negative interactions' between masters athletes and their peers because their sporting achievements deviate from social and cultural values about how older persons should behave (Stevenson, 2002). Challenging negative stereotypes with positive role models can potentially play an important role changing societal perceptions of aging (Levy & Banaji, 2002). Those with a more positive expectation of the aging

process are more likely to engage in other behaviour related to good health, including eating a balanced diet, and making regular visits to the doctor (Levy & Myers, 2004). Masters athletes not only challenge current views about aging and sport activity, but they have the ability to inspire younger athletes that participation in physical activity is realistic and desirable.

Masters sport participation represents a strategy for coping with the aging process (Dionigi, 2010; Langely & Knight, 1999; Roper et al., 2003). Coping refers to the "cognitive and behavioral efforts to manage specific external or internal demands (and conflicts between them) that are appraised as taxing or exceeding the resources of the person" (Lazarus, 1991, p. 112). Sport participation involves physical exertion, control and use of the body, competition, and socialization. Competing in masters sport provides participants with confirmation that they are coping with the aging process through the sense of pride, achievement, and empowerment it instills (Dionigi, 2010). Taking on some responsibility for the way in which one ages can be an empowering experience (Rowe & Kahn, 1998). Through competition, masters athletes realize that they have not lost their physical ability to compete in sport, and are still capable of competing despite their advancing age (Dionigi, 2002). Grant (2001) noted that despite significant changes in their physical competence and body function, physical activity was viewed as an important way to curb these changes in those aged 70 years and older. In addition, sport was a means of coping with the fear of losing independence as well as their health and well-being (Grant, 2001). Taken together, masters sport encompasses a positive psychosocial domain where participation is motivated by a desire to stay healthy, active, social, and to delay dependence and ill health.

Physiological Factors

Generally, examinations of athletic performance have demonstrated inevitable and increasingly greater physiological age-related declines as athletes advance from the age of peak function into middle and old-aged years (e.g., Baker, Tang, & Turner, 2003; Bortz & Bortz, 1996; Hartley & Hartley, 1984). More recently, however, researchers have postulated that declining involvement in physical activity in aging was responsible for much of the physiological decline rather than simply aging itself (Maharam et al., 1999). Determining biological aging on physiological functional capacity is difficult because of the confounding factors that often change simultaneously with aging (e.g., decline in physical activity, increase in chronic degenerative disease) (Tanaka, 2010). Because masters athletes represent an active population they offer the best opportunity to measure inherent aging (Bortz & Bortz, 1996; Lazarus & Harridge, 2007).

VO_2 max has been examined extensively among masters athletes. VO_2 max refers to the functional limit of the body's ability to deliver and extract oxygen to meet the metabolic demands of vigourous physical activity and is recognized as the international reference standard for physical fitness (Shephard et al., 1968). Early studies using masters athletes to test declines in VO_2 max suggested between a five to seven percent decline per year (Fuchi, Iwaoka, Higuchi, & Kobayashi, 1989; Health, Hagberg, Ehsani, & Holloszy, 1981; Meredith, Zachin, Frontera, & Evans, 1987). More recent research by Pollock and colleagues (1997) reported a nonsignificant decline in VO_2 max over a 10-year period in masters athletes aged 50 to 60. By the 20-year follow-up, the decline rate accelerated to approximated 1% per year. These results indicate that the rate of loss in VO_2 max rates is not linear as it declines slowly from young adulthood, accelerating through middle age until a fairly dramatic loss in old age (70 and over)(Hawkins, 2010; Wiswell et al., 2001). There are two important implications of these findings. Firstly, older

adults commonly demonstrate VO_2 max values that are lower than required for many common activities of daily living (Durstine & Moore, 2003). Thus, masters athletes at any age are able to enjoy greater cardiovascular health than their sedentary counterparts (Hawkins, 2010). Secondly, the results suggest that because of the small declines in VO_2 max scores, masters athletes are able to meet high international reference standards for physical fitness (Hawkins & Wiswell, 2003).

Another important physiological issue is whether recovery from a given stimulus is the same for athletes of all ages. The common belief is that recovery is slowed with age (Fell & Williams, 2010). Although muscle recovery can be measured, or described in many ways, recovery refers to the process by which skeletal muscle tissue can continue to generate high forces or to maintain moderate intensity contractions for prolonged periods (Fell & Williams, 2010). This is important because coaches and athletes adopt a wide variety of approaches to manipulate training programs with the goal of improvements in performance. If training sessions are too frequent, then recovery cannot occur and optimal gains in performance are not achieved. Alternatively, if training sessions are too long, the opportunity for gaining from the training adaptation may be missed. Although aging has been reported to result in reductions in the ability of the skeletal muscle to produce force (Frontera et al., 2000; Prochniewicz, Thomas, & Thompson, 2005), the age at which this process commences is uncertain, with some beginning in the third decade of life (Inokuchi, Ishikawa, Iwamoto, & Kimura, 1975) while others report it in the eighth or ninth decade of life (Lexell, Henriksson-Larsen, Winbald, & Sjostrom 1983; Lexell, Taylor, & Sjorstrom, 1988). Because of the discrepancy, it is suggested that masters athletes should follow the same careful considerations for fatigue and recovery in training as other age groups (Fell & Williams, 2010).

The human aging process is associated with a significant decline in neuromuscular function and performance (Doherty, Vandervoort, & Brown, 1993; Roos, Rice, & Vandervoort, 1997; Vandervoort, 2002). The primary mechanism underlying this decrease in muscle strength is referred to as sarcopenia and is associated with a decline in muscle mass and muscle strength (Volpi, Nazemi, & Fujita, 2004). Research has begun assessing the multiple factors that lead to its development, and the most effective interventions to prevent or partially reverse sarcopenia (Doherty, 2003). In relation to sarcopenia and masters swimmers, resistance training interventions can partially reverse losses of strength (Frontera, Meredith, O'Reilly, Knuttgen, & Evans, 1988; Porter, Vandervoort, & Lexell, 1995; Vandervoort, 2002). This evidence suggests that coaches of masters swimmers should encourage athletes to follow strength training regimens in order to circumvent sarcopenia and maintain muscle mass for optimal swimming performance.

The purpose of this section was to outline some psychological and physiological features of masters athletes. Together, some of these features could dishearten, deter or discourage sport participation among older athletes (Wilson, Sullivan, Myers, & Feltz, 2004). Because coaches can positively affect athletes' performance, behaviour, and psychological and emotional well-being (Horn, 2008), they provide a very important aspect of masters athletes' experience, and continued participation in sport. A further understanding of several coaching models will present a more comprehensive picture of how coaches' behaviour and characteristics have the potential to elicit positive outcomes in masters athletes.

Theoretical Models

Multidimensional Model of Leadership

According to Chelladurai and Carron (1978) sport performance is positively affected when coaches adapt their behaviours to comply with athletes' preferences. In accordance with

this belief, Chelladurai (1978) proposed the Multidimensional Model of Leadership (MML)(Appendix A). This model incorporates three states of leader behaviours: required, preferred, and actual. According to the model, situational characteristics (e.g., the goals of the group or the individual), and the social and cultural context of the group set the parameters for required behaviour. Preferred behaviours refers to the preferences of the athletes in terms of the support the coach gives them, the type of instruction they expect, and the feedback they require. These behaviours are largely influenced by the member characteristics (e.g., gender, ability, age). Therefore, the preferences for specific forms of behaviour from the leader will be partly shaped by context of the group. Finally, the actual behaviour of the leader is dependent on the leader's characteristics, including personality, expertise, and experience. In addition, the multidimensional model states that the actual behaviour will also be shaped by the required behaviour and the preferred behaviour. This means that through trial and error, and through athlete feedback, the coach will modify his/her behaviour to suit a particular group.

In order to test the constructs of the model, Chelladurai and Saleh (1978) developed the Leadership Scale for Sport (LSS). The LSS consists of 40 items representing five dimensions of leadership behaviour: Training and instruction, democratic behaviour, autocratic behaviour, social support, and positive feedback. The LSS can be modified to gather information on the athletes' preferences for specific coaching behaviors, the athletes' perceptions of their coaches' leadership behaviours, and the coaches' perceptions of their own behaviours (Bloom, 2002).

To date, the majority of quantitative studies examining leadership in sport have used the LSS (e.g., Chelladurai, 1984; Chelladurai, Malloy, Imamura, & Yamaguchi, 1988; Dwyer & Fischer, 1990; Wright & Côté, 2003). Much of the research using the LSS has been descriptive, and can be divided into two categories: studies dealing with the influence of selected antecedent

variables on perceived and preferred leadership, and the influence of the congruence between the perceived and preferred leadership in relation to leader consequences (Chelladurai & Riemer, 1998). Although little empirical research has looked at this model in relation to masters athletes, research indicates that athletes' preferences of coaching behaviours change as well (Chelladurai & Carron, 1983). Player satisfaction in sport is often a direct result of coaching behaviour (Murray, 2006). A better understanding of masters athletes' preferences for coaching behaviours and characteristics will allow coaches to more positively influence these athletes.

Mediational Model of Leadership

The Mediational Model of Leadership was established from an interactional perspective (Smoll & Smith, 1989). In essence, coach behaviours do not occur in a vacuum where a coach exhibits a behaviour, and every athlete reacts in the same way. Rather, this model suggests that individual difference variables (i.e. self-esteem), and situational factors (i.e. age, gender) and cognitive processes mediate overt coaching behaviours and athletes' reactions to them. The Mediational Model of Leadership (Appendix B) is based upon three categories: coach behaviours, athlete perception and recall, and athletes' evaluative reactions (Smoll & Smith, 1989).

The model emphasizes the influence of various antecedents on these three categories, including situational factors and the individual difference variables of coaches and athletes. Examples of these antecedents include the nature of the sport and the level of competition, coaching goals and behavioural intentions, the age of the athletes, and player sport-specific self-esteem (Smoll & Smith, 1989). Of note, only studies on youth sport athletes have been used in research with this model (Chelladurai, 2007). However, the constructs of the model appear pertinent to any coach-athlete relationship. Smith and Smoll stated that "the manner in which

coaches structure the athletic situation, the goal priorities they establish, the attitudes and values they transmit, and the behaviours they engage in can markedly influence the likelihood that the outcome of sport participation will be favorable for children" (1989, p. 1526). However, subsequent research into the affects of coaches and adolescent and adult populations has proven that coaches still effect the same outcomes in adults with their behaviours (Chelladurai, 2007).

In addition to this model, Smith, Smoll, and Hunt (1977) developed the Coaching Behavior Assessment System (CBAS) to examine youth coaching behaviours and their effect on young athletes. The CBAS is an observational tool used to directly observe and code coaching behaviours in practice and game situations. Research based on the CBAS established relationships between coach behaviours and athlete variables specified in the Mediational Model of Leadership (e.g., Barnett, Smoll, & Smith, 1992; Smith, Smoll, & Barnett, 1995; Smoll, Smith, Barnett, & Everett, 1993).

Following the first study, Smith, Smoll, and Curtis (1978) collected data on coaches' perceptions of their own behaviors during games and practices, and on player attitudes, via interviews, to determine their relationship with their coach and teammates, their general self-esteem, and the degree of enjoyment they experienced during the season. Results from this study revealed the dimensions of supportiveness and instructiveness were positively related to players' attitudes toward the coach, their teammates, and the sport. Hence, players responded most favourably to coaches who engaged in higher percentages of supportive and instructive behaviours (Smith et al., 1978). These results influenced the third step of Smith and Smoll's research program, The Coach Effectiveness Training Program (CET).

The CET program consists of five core positive approach principles for youth sport coaches (Smith, Smoll, & Curtis, 1979). The first and most important principle, winning, was

defined as giving maximal effort instead of emphasizing a team's win-loss record. Player self-worth was separated from game outcome; hence, the explicit and primary focus of sport involvement for children was having fun, increasing self-esteem, and decreasing player anxiety. The second principle emphasized a positive approach to coaching by encouraging the use of liberal reinforcement and encouragement to strengthen team climate. Punitive behaviors were strongly discouraged. The third principle relates to establishing norms that obligated players to help and support one another to increase team cohesion and commitment. The fourth principle encouraged athlete involvement in team decisions regarding the creation, adherence, and reinforcement of team rules. Finally, the fifth principle involves coach initiated behavioural feedback and self-monitoring. This was intended to increase awareness of one's own behaviors and to encourage compliance with the positive approach guidelines.

In an attempt to test the CET program, Smith, Smoll, and Curtis (1979), randomly assigned 31 little league baseball coaches to either a training (experimental) or a no-treatment (control) group. The training group was monitored during the pre-season until they increased their positive behaviours and decreased their negative behaviours by 25%. At the conclusion of the intervention, findings revealed that coaches in the intervention group gave more positive reinforcement after good performance and effort, more encouragement and technical instruction, and fewer punitive responses. In addition, results from the athletes demonstrated that children who played for coaches from the intervention group enjoyed their coaches more, rated them as better teachers, and had a more positive sport experience than children in the control group. Similarly, it was also discovered that athletes of trained coaches exhibited significant increases in self-esteem compared to the previous season. More recently, Smith, Smoll, and Cumming (2007) modified the program and renamed it the mastery Approach to Coaching (MAC). The philosophy

of the program remained the same, as well as the goal of the program. Among the changes, the 5 principles in the CET were reduced to two themes: Emphasizing reinforcement in positive ways and measuring success based on maximum effort. Other differences included the length of the course and the delivery of material.

An important parallel can be drawn between the Mediational Model of Leadership and its progression into a training program that supported the positive development of youth athletes, to the current climate faced by masters athletes and coaches. Presently, masters coaches receive no formal training about the needs of their athletes. As demonstrated through the CET, trained coaches modified their behaviors which, in turn, positively influenced children's self-perceptions, anxiety, and adherence levels, as well as the psychosocial and affective responses to their athletic involvement (Smith et al., 1979). The establishment of a similar program designed specifically for Coaches of masters Athletes could potentially yield similar benefits to the masters athlete community as it in the youth sport community.

In summary, the Mediational Model of Leadership and the Multidimensional Model of leadership attest to many important variables that can positively impact the coach-athlete relationship. Underlying both models is the degree to which coaches are attuned to both the contextual factors, and the unique personal variables that make up the masters swimmers and its effects of coaching effectiveness and athlete satisfaction.

Coaching and Aging

Although athletes' motivation for sport is determined largely by their own beliefs, thoughts, and values, coaches represent an important motivational factor (Deci & Ryan, 2002). According to Jones (2006), the role of coaches is to engage in the deliberate process of manipulating the environment by a variety of means in order to influence, modify, and improve

athletes holistically. Research exploring how coaches acquire the knowledge that underpins their professional practice has uncovered several important findings. Research has suggested that formal, non-formal and informal learning are the foundation of coach knowledge (Nelson, Cushion, & Potrac, 2006; Werthner & Trudel, 2006). Formal learning refers takes place in a structured educational system and might include large-scale coach certification programs developed by national sport governing bodies. Non-formal learning refers to any organized systematic educational activity that takes place outside the framework of the formal system to provide select types of learning to particular subgroups in the population (e.g., seminars, coaching conferences, workshops, etc.). Finally, informal learning occurs through daily experiences and exposure to the environment. Examples include interactions with players and other coaches, informal mentoring, previous experience as an athlete.

Formal learning enhances the perceived efficacy of coaches towards influencing the learning and performance of their athletes (Malete & Feltz, 2000). In addition, formal learning has been found to aid coaches in facilitating a better environment for social development and growth of athletes (Conroy & Coatsworth, 2006). In Canada, the Coaching Association of Canada (CAC) governs the coaching education system. Through the CAC, coaches are educated through a coursed-based program – the National Coaching Certificate Program. Currently, the NCCP is in the process of developing the *Coaching Masters Athletes Handbook* as an educational tool to help support coaches on how to best coach this cohort of athletes. The aim of this program is similar to the *Coaching Athletes with a Disability* module which was launched in 2005 and gave coaches the resources to attend to the specific needs of athletes with a disability (Coaching Association of Canada, 2012). Approximately one-third of coaches reported NCCP as a top actual source of knowledge informing their practice (Erickson, Bruner, Macdonald, & Côté,

2009). Without a masters athlete training module, masters coaches must rely solely on informal and non-formal modes of learning to inform their coaching behaviours and characteristics, something which could impact athlete satisfaction and performance.

Sport coaches fulfill leadership roles as characterized by goals based on improved sports performance (Lyle, 2002) and guide improvement at identifiable stages of athlete development (Duffy, 2010). Currently in masters swimming, 28% of international-level swimmers reported not having a coach (Young & Medic, 2011). This is important because of the relationship between sport performance and age-related decline in masters athletes. According to work by Krampe and Ericsson (1996), age decline for performance can be moderated if individuals engage in large amounts of domain-specific "maintenance practice." Their theory is called the selective maintenance account and posits that individuals must practice continuously over the course of their lives in specific practices that are most relevant for improving performance. Krampe and Ericsson (1996) reported that the degree of maintenance of pianist skills for older expert pianists was predicted by the amount of deliberate practice during later adulthood. Ericsson, Krampe and Tesch-Rymer (1993) defined *deliberate practice* as a very specific activity designed for an individual by a skilled teacher explicitly to improve performance. This is a significant finding for masters athletes because it suggests that a skilled coach is a very important aspect of maintaining and improving performance.

To test the selective maintenance account theory Young, Weir, Starkes, & Medic (2008) looked at masters runners. They found that masters runners acquired their performance capabilities by training intently and without interruption for many years and their results demonstrated the important role of practice in explaining elite running performance into the middle years of life. Young and colleagues suggested that the challenge for these athletes was to

continually navigate the effort and motivational constraints to train in order to maintain their high level of performance. Although many factors may impact athletes' motivation, the coach-athlete relationship is one of the most important influences on athletes' motivation and subsequent performance (Mageau & Vallerand, 2003). Trained and effective coaches could help keep these athletes on track, while maintaining a fun and challenging practice environment.

Evidence suggests that although masters athletes have attained more sport experience, many are still affected by the behaviours of their coaches (Medic, Young, Starkes, & Weir, 2012). Research has shown coaches to be an influential source of efficacy information for athletes (Feltz & Lirgg, 2001; Vargas-Tonsing & Bartholomew, 2006), and in particular female masters athletes (Medic et al., 2012). Many articles on masters athletes point to a decrease in confidence due to their prolonged absence from sport, a decrease in their perceived ability as athletes as well as a host of other factors influencing their participation (Dionigi, 2002; Grant, 2001; Stevenson, 2002). These athletes are facing more challenges at the personal and societal level including it would be easy to 'give up' (Grant, 2001). Older adults who believe that physical and cognitive decline is an inevitable part of growing older may disengage from activities that challenge these abilities in order to preserve their self-image (Baker & Horton, 2011). Having a coach who understands the physiological, psychological, and performance potential of masters athletes may facilitate a more positive experience for them (Horn, 2008).

Although there are very few full-time masters coaches, many athletes report that having a coach is one strategy masters athletes use to motivate themselves to train (Medic, 2010). For example, a qualitative study done by Stevenson (2002) found that coaching is something that attracts athletes to join masters athletic clubs. Athletes reported that they wanted a coach to "provide more variety and 'more fun' in their swimming" and wanted someone "telling you what

to do" (Stevenson, 2002). Masters athletes crave a coach because they provide more structure and more discipline (Medic, 2010; Stevenson, 2002). This desire for coaching and instruction may not be surprising when considering the goal orientation of masters athletes. Research looking at the goal orientation of masters athletes has found them to be highly task-motivated individuals (Hodge et al., 2008; Newton & Fry, 1998). Task-oriented athletes are those who seek to improve his/her ability and the criteria for success are self-referenced (Nicholls, 1992). In contrast, an ego-oriented person seeks to demonstrate his/her ability by being the best and out-performing others, and the criteria employed to define success are other-referenced (Nicholls, 1992). High task orientation is consistent with the prediction that a focus on skill development is associated with greater intrinsic motivation, enjoyment, and commitment (Hodges et al., 2008). Coaching is highly relevant with this type of motivational makeup. Without coaches' instructions and structure, athletes lack the necessary information and experience to progress in their sport (Mageau & Vallerand, 2003). This is particularly important to masters athletes because one's perceived physical adeptness and the biopsychosocial conception of aging may be the most important sources of information on which to base athletic efficacy (Bandura, 1997). As masters athletes age they must continue to view themselves as successful in sport to remain involved. Qualified knowledgeable masters coaches would be able to fulfill that necessity.

Coaching Science

Coaches are considered influential individuals in athletes' lives that not only affect their performance, but also affect behaviour, psychological and emotional well-being (Horn, 2008). Coaches are responsible for developing athletes' mental, physical, technical, and tactical abilities in a wide range of both individual and team sports and at varying levels of participation and competition (Becker, 2009; Horn, 2008; Smoll & Smith, 1989). *Coaching science* refers to

research on the coaching, learning, and instructional processes as directed by coaches (Gilbert & Trudel, 2004). Since the 1970s, the study of coaches has resulted in a steady increase of empirical coaching literature (Gilbert & Trudel, 2004; Gilbert & Rangeon, 2011). In their work, Gilbert and Trudel compiled, organized, and analyzed a database of 610 studies on coaching science published in English-language journals between 1970 and 2001. Through their synthesis of the literature they devised four categories relating to the processes of coaching: behaviour, thoughts, characteristics, career development. Their efforts helped researchers situate their work within the larger context of coaching science, but also present some of the best coaching practices.

Most recently, Gilbert and Rangeon (2011) expanded on the previous database with a focus on coaching effectiveness and coach development. Among their findings, they noted that two of the most influential and cited models in coaching literature were the Multidimensional Model of Leadership (Chelladurai, 1978) and the Mediational Model of Leadership (Smoll & Smith, 1989). Their analysis of these two models revealed several themes that were important for this study. Firstly, both models focus on athlete development as the primary goal – or outcome – of coaching effectiveness. Coaching effectiveness refers to "[t]he consistent application of integrated professional, interpersonal, and intrapersonal knowledge to improve athletes' competence, confidence, connection, and character in specific coaching contexts" (Côté & Gilbert, 2009, p. 316). Both the Mediational Model of Leadership and the Multidimensional Model of Leadership note that coaches who are able to apply and align their coaching expertise with particular athletes and situations which maximize athlete learning outcomes are the ones who demonstrate coaching effectiveness (Côté & Gilbert, 2009). Thus, research exploring coaching behaviours provides valuable information regarding leadership styles, feedback

patterns, and expectancy effects (Becker & Wrisberg, 2008; Bloom, Crumpton, & Anderson, 1999), but it does not provide insights into the athletes' experience of being coached (Becker, 2009). Considering that athletes are the ones who are most impacted by coaches on a daily basis, it is reasonable to assume that understanding their experiences from their perspective would serve to provide a more complete picture of the coaching process.

Second, both models postulate that coaching effectiveness is demonstrated through the overt coaching behaviours that are directly influenced by a range of antecedents, namely coaching values and beliefs (Gilbert & Rangeon, 2011). Effective coaches exert their positive influence on their athletes through their behaviours (Bloom et al., 1999; Horn, 2008; Smith et al.,, 1979; Smoll & Smith, 1989). An important variable that mediates the relationship between coaching behaviours and athlete outcomes such as motivation, performance, behaviour, beliefs, attitudes, and evaluative reactions is athletes' *perceptions* of these behaviours (Horn, 2008; Smoll & Smith, 1989). These perceptions may be affected by athletes' personal characteristics or individual difference variables (Horn, 2008; Smoll & Smith, 1989). For example, one variable that might influence athletes' perceptions of coaches' behaviour is athletes' sport experience (Kavussanu, Boardley, Jutkiewicz, Vincent, & Ring, 2008). It is possible that masters athletes, who have participated in their sport for many years and have been exposed to different coaches and different coaching behaviours, may evaluate their coach's effectiveness differently (Kavussanu et al., 2008). Thus, looking at coaching effectiveness from the athletes' perspective is important to understand what behaviours and characteristics are preferred by this age group.

Thirdly, these models recognize that behaviour is context-dependent (Gilbert & Rangeon, 2011). This means that behaviours must be adapted to meet the specific needs of athletes in specific coaching contexts. While commonalities of practice have emerged as a result of

consistent findings throughout coaching science research, the inability to prescribe appropriate behaviour lies in the complex and dynamic nature of coaching (Horn, 2008). One factor complicating this issue is the discrepancies between athletes' perceptions and their coaches' reports (Kenow & Williams, 1992; Short & Short, 2004; Stein, Bloom, & Sabiston, 2012; Vargas-Tonsing, Myers, & Feltz, 2004). Kenow and Williams (1992) examined female college basketball players' and their coach's views of effective coaching behaviours that might occur when playing against a top team in their league and found that the coach rated some of his behaviours more positively than his athletes. Kavussanu and colleagues (2008) suggested that coaches needed to be aware that more experienced athletes might have higher demands and expectations from them and coaches needed to try to meet those expectations by improving their coaching knowledge and skills. High-quality coaching education programs might assist coaches' in learning the discrepancies that make masters athletes unique from other cohorts.

Athletes' perception of coach behaviour makes up the foundation of their evaluation of their athletic environment (Newton & Duda, 1999). The more positively athletes perceived their coaches' behaviours, the more positively they reported their athletic experiences (Stewart & Owen, 2011). Many elite-level coaches have established an environment where the skills and values taught from their sport were promoted and encouraged in both sport and in life (Becker, 2009; Duchesne, Bloom, & Sabiston, 2011; Mallett, 2005; Vallée & Bloom, 2005). Creating these positive environments was not about *what* the coaches did, but rather *how* they did it. For example, Becker found that when coaches integrated athletes in various decision-making processes it gave the athletes a sense of empowerment. This helped the athletes' buy into their coach's system and the team concept (Becker, 2009). Vallée and Bloom found that expert coaches emphasized athlete empowerment by imparting as much knowledge as possible to every

athlete. Through this empowerment, the coaches' fostered their players' individual growth, which was a key element in building successful University programs (Vallée & Bloom, 2005). These coaches were not solely concentrated on the performance outcomes of their athletes but rather on the holistic development of their players. In light of research that suggests that prolonged sport participation is a successful avenue for the promotion of successful aging and a host of psycho-social outcomes (Buchner, 1997; Fontane, 1996), the use of a holistic approach to coaching might elicit the greatest effect.

Mageau and Vallerand (2003) have proposed that coaches' influence on their athletes' motivation takes place mainly through the coaches' behaviour with them. Such behaviours can convey varying degrees of autonomy support, structure, involvement and caring toward the athletes facilitating their self-determined motivation (Mageau & Vallerand, 2003). Autonomy-supportive coaching approaches promote an adaptive environment in which athletes can both enjoy their participation as well as seek optimal performance (Banack, Bloom, & Sabiston, 2011; Mallett, 2005). However, the effectiveness of the motivational climate created and fostered by coaches depends on how athletes interpret these behaviours (Stein et al., 2012). Masters athletes need to perceive that their coach allows them to be competent, connected with others, and autonomous if they are to experience heightened intrinsic motivation (Mageau & Vallerand, 2003). We cannot simply expect the same motivational trends among middle-aged and older masters athletes as in younger cohorts (Medic et al., 2012). Understanding these athletes' preference is crucial to better account for the nuances and needs among the masters athletes' community.

Summary

On a global level, public health should continue to address the outcomes of physical, cognitive, and social health through encouraging older adults to participate in physical activity. Much of the influence to participate and remain involved either recreationally or competitively in sport starts with an effective coach (Feltz, Chase, Moritz, & Sullivan, 1999; Horn, 2008). As exemplified through the Mediational Model of Sport and the Multidimensional Model of Sport, through learning and aligning their behaviours with the preferences of athletes, masters coaches will be more successful at fostering positive psychological development for them, which might ultimately improve performance as well.

CHAPTER 3

Methods

This chapter presents the qualitative methodology used in the current study. The participants, procedures, data gathering, and validity elements will be explained, with particular focus on Braun and Clarke's (2006) guidelines for conducting thematic analysis.

Qualitative Descriptive Studies

Qualitative descriptive studies seek to accurately account for the meaning that participants attribute to a phenomenon (Maxwell, 1992). Qualitative descriptive studies consist of a well-considered combination of sampling, data collection, analysis, and re-presentational techniques (Sandelowski, 2000). In contrast to phenomenology, grounded theory, ethnographic, or narrative studies, which are based on specific methodological frameworks, qualitative descriptive studies tend use techniques that allow the participants to reveal themselves with the least amount of inference from the researcher (Sandelowski, 2000). This technique is most appropriate when a description of a phenomenon is desired (Neergaard, Olesen, Andersen, & Sondergaard, 2009).

Participants

According to Marshall (1996), an appropriate sample size in qualitative research adequately answers the research question through data saturation. Data saturation is the point at which no new information or themes are observed. Seeing nothing new in interviews or feeling comfortable that a theoretical category has been saturated are functions involving the recognition of what information is recorded and what can be made out of the data already collected, and then deciding whether it is sufficient to create an intended product (Sandelowski, 1995). Patton (1990) suggested that participants should be purposely selected because qualitative research

seeks to study in depth cases that are rich in information. The ultimate goal of purposeful sampling is to obtain cases deemed information-rich for the purposes of study (Sandelowski, 2000). Six male masters swimmers from two swim clubs located in the suburbs of Toronto were recruited for the present study. Guest, Bunce, and Johnson (2006) noted that 6-12 participants were typically sufficient for acquiring data saturation. Both clubs were chosen because of their positive reputations in masters swimming, which included promoting fitness through swimming, having a large clientele, and having swimmers who are recognized as among the best in Canada. Both clubs employ full-time coaches and have several members that rank in the top 5 in their age group.

Elite male masters swimmers aged 49-64 years old were purposely chosen because this age group represents the greatest participation numbers within masters swimming (http://mymsc.ca/ShowMeet.jsp?id=480). Females were omitted because gender can impact athletes' perceptions of coaching behaviours (e.g., Horn, 2002; Kavussanu, Boardley, Jutkiewicz, Vincent, & Ring, 2008; Vargas-Tonsing, Myers, & Feltz, 2004). All athletes had a top 10 ranking in the province within their age group. More detailed biographical information on the athletes is presented in Table 1.

Procedures

Once approval was granted from the McGill Research Ethics Board, the research team contacted eligible participants by phone or email with a recruitment script (Appendix C). Participants are contacted by referral frequently in qualitative research, (Creswell, 2007). Two "*gatekeepers*" (Creswell, 2007, pg. 125) initiated contact with the participants. These *"gatekeepers"* were chosen because of their "insider status" in masters swimming, and were helpful in identifying the best candidates for study (Creswell, 2007).

The participants were sent a consent form (Appendix D) and asked to complete a demographic questionnaire (Appendix E) to be completed and filled out prior to the interview. The athletes were interviewed for a period of 1 to 2 hours at a location and time of their choosing.

Data Gathering

Data were collected using a qualitative interview technique. The types of interviews range from structured (e.g., pre-established questions and limited response categories) to unstructured formats (open discussion of a topic with few questions in mind) (Fontana & Frey, 1994). The current study used a semi-structured open-ended interview format. This type of interview technique has been employed by many sport psychology researchers (e.g., Bloom, Durand-Bush, Schinke, & Salmela, 1998; Côté, Samela, & Russell, 1995; Vallée & Bloom, 2005), because they are similar in style to an ordinary conversation with the interviewee doing most of the talking (Lincoln & Guba, 1985). This allowed the interviewer to focus the topic of discussion but allowed the interviewee the freedom to answer openly without restrictions (Rubin & Rubin, 1995). It was advantageous for interviewees to answer without restriction because it allowed them to dictate the subject matter that was most important to them.

Interviews

Interviews have been a prominent method of data collection in qualitative sport psychology / coaching studies (Biddle, Markland, Gilbourne, Chatzisarantis, & Sparkes, 2001; Culver, Gilbert, & Sparkes, 2012). Prior to the start of the interviews, the interviewer received training from an individual who has extensive experience with qualitative interviewing techniques. The training involved having the interviewer conduct three pilot tests which provided the interviewer with an opportunity to practice her interviewing techniques and to ensure the

appropriateness of the interview guide. Each pilot interview was video recorded so that the interviewer could receive feedback on body language as well as voice tone or prompting that could impact the nature of the answers from the participants. Once training was complete, each participant of the current study was interviewed face-to-face. Interviews explore an athlete's interpretations and understanding of their experiences (Kvale & Brinkmann, 2008; Rubin & Rubin, 2012). Interviews go beyond every day conversation and are conducted to gain a complex and detailed understanding of an issue by listening to the participants' lived experience (Creswell, 2007; Kvale & Brinkmann, 2008). The goal of the interview is to provide rich and detailed information (Rubin & Rubin, 2012). According to open ended interview guidelines, the interviewee can respond any way he or she chooses, elaborating upon answers, disagreeing with the questions, or raising new issues. In addition, the questions were not fixed. The interviewer did not have to stick to a given set of questions or ask them in a given order; she could change wording or skip questions depending on the situation (Rubin & Rubin, 2012). For the present study, the researcher assumed the role of fellow athlete by mentioning that she competed at the Olympics . This background signaled that the interviewer understood the "culture" of elite sport.

Interview Guide

The aim of semi-structured interviews is to elicit detailed stories, thoughts, and feelings from each participant. An interview guide (Appendix F) was created by the research team based on their extensive knowledge of leadership and coaching. This guide was used for each participant in order to ensure consistency and each athlete was asked to respond based solely on their experiences as a masters swimmer. The interview began with a general background on the athletes and their involvement in masters swimming (e.g., How did you get involved in masters swimming?). Both the Multidimensional Model of Leadership (Chelladurai, 1978) and the

Mediational Model of Leadership (Smoll & Smith, 1989) postulate that athletes' perception of coaching behaviours is affected by athletes' personal characteristics. Thus, gaining an understanding of the participants background is important in establishing if similarities exist within the group which may alter the behaviours and characteristics preferred by this age group. After the opening questions, the interviewer moved to the main questions of the study. These main questions related to what coaching characteristics and behaviours they had experienced (e.g., Describe the role of the coach for a masters swimmer? Describe how your coach structures your training sessions?). When using an interview guide it is important that the questions reflect areas of interest to the study in an open and direct way and must try to avoid imposing their own interests on the experiences of the participants (Seidman, 2006). As such, asking participants of their preferred coaching behaviours and characteristics would be suggesting that they had preferences. Interviewing is not designed to test hypotheses, gather answers to questions, or corroborate opinions (Seidman, 2006). Rather, other open-ended questions allow participants to reconstruct their experience and to explore their meaning and in the case of this study, the interviews provided a better understanding of the situation and the experiences of the participants as masters swimmers. Finally, the third section contained concluding questions that allowed participants the opportunity to include any information they believed was relevant. Main, probe, and follow up questions were asked (Rubin & Rubin, 1995). Main questions allowed participants to describe and elaborate on their knowledge pertaining to the topics of interest in the study (Patton, 2002). Probe questions increased the richness and depth of responses by allowing the participants to further develop the areas considered relevant. Finally, follow up questions provided the researcher the ability to clarify areas of the participant's knowledge and experience

Table 1

Athletes' Demographic Profiles

Name	A1	A2	A3	A4	A5	A6
Age	50	50	49	64	56	49
Marital Status	Married	Married	Married	Married	Married	Divorced
Number of children and their ages	3 (26,16,12)	None	4 (18,16,14,11)	1 (33)	2 (16,13)	1 (12)
Occupation	VP Marketing	Finance Manager	Business Owner	Swim coach (Youth to masters athlete)	Currently Unemployed	Air Traffic Controller
Hours of work in a day and week	7.5 hrs daily 38 hrs weekly	7.5-8 hrs daily 40-45 hrs weekly	8 hrs daily 40 hrs weekly	14 hrs weekly	10 hrs weekly	8.5 hr shifts 6 days on 4 off
Highest level of competition prior to masters Swimming	Age group swimming, Division 2 Nationals	None	None	Can/Am Swim meet	1980 Olympic team member	University
Highest level of competition as a masters Swimmer	Nationals	Provincials	Nationals	World Masters Games	World Masters Games	Nationals

that may have been overlooked (Rubin & Rubin, 1995). All of the interviews were audio-recorded and transcribed verbatim.

Data Analysis

Sport narratives were written to describe the participants' experiences and lives. Sport narratives represent a powerful way of letting the participants' tell their own story without being buried beneath layers of analysis (Denison, 1996). A narrative is taken to mean "a complex genre that routinely contains a point and character along with a plot connecting events that unfold sequentially over time and in space to provide an overarching explanation or consequence. It is a constructed form or template which people rely on to tell stories" (Smith & Sparkes, 2009, p. 2). For the present study, the characters of the narratives were the swimmers. The events and experiences that unfolded over the course of their lives that they believed influenced their participation in masters swimming was what each narrative highlighted. Once each of the six interviews was transcribed verbatim, a narrative was completed for each of the six participants in the study (Appendix G – L). Once each narrative was complete, each participant was sent the narrative and was given the opportunity to modify or delete any part of the narrative without penalty.

Descriptive qualitative studies are characterized by simultaneous collection and analysis of data whereby both mutually shape each other (Sandelowski, 2000). This was accomplished by thematically analyzing the open ended interviews. Thematic analysis is a method for identifying, analyzing, and reporting themes within data (Braun & Clarke, 2006). This approach will be explained following the guidelines outlined by Braun and Clarke (2006).

The data analysis procedure began with repeated readings of each interview (Braun & Clarke, 2006). Second, the interviews were transcribed verbatim making minor edits, and resulted in 48 pages of single-spaced text. Although qualitative data analysis software programs do exist which can allow basic "code and retrieval" of data, this process was conducted by hand to avoid the problem of decontextualisation or data fragmentation (Dey, 1993; Pope, Ziebland, & Mays, 2000). Names of participants were changed to ensure the confidentiality of each participant. Next, each interview was analyzed line by line and broken down into initial meaning units (Braun & Clarke, 2006). The six interviews resulted in a total of 369 meaning units. Meaning units identify a feature of the data that appears interesting to the analyst and is meaningful to the overall research question (Braun & Clarke, 2006). Next, the meaning units were sorted into sub-themes (Braum & Clarke, 2006). These sub-themes describe the surface or explicit meanings of the data which was then organized into larger themes (Braun & Clarke, 2006). From the 369 meaning units, 31 sub-themes emerged which eventually were organized into 3 larger themes. A theme captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set (Braun & Clarke, 2006). The importance of a theme is not necessarily dependent on quantifiable measures – but in terms of whether it captures something important in relation to the overall research question (Braun & Clarke, 2006). Finally, the researcher identified the 'essence' of each theme and determined what aspect of the data each theme captured (Braun & Clarke, 2006). This was accomplished by going back through the data extracts for each theme, and organizing them into a coherent and internally consistent account (Braun & Clarke, 2006). In this phase the goal was identify the 'story' that

each theme tells, and how this theme fits into the broader overall 'story' in relation to the research question (Braun & Clarke, 2006).

Validity

In order for research to be considered meaningful, the researcher needs to establish validity of data collection, analysis, and conclusions (Yardley, 2008). Applying methods of validity ensures a certain level of trustworthiness and diminishes the chances of misrepresentation or mishandling of the data (Yardley, 2008). Using published criteria is also an important method of disseminating best practice and improving standards of research (Yardley, 2008). This section will include five different techniques used by the research team to enhance the validity of the study.

Triangulation: Triangulation is important as a method of enriching one's understanding of a phenomenon (Yardley, 2008). Comparing the coding of two or more researchers triangulates perspectives and ensures that the analysis is not confined to one perspective (Yardley, 2008). In the current study, the primary researcher coded the data and discussed the emerging codes in eight meetings with other members of the research team who read the transcripts. These discussions helped to identify potential themes in the data that may not yet have been captured by the codes, and highlighted clarifications or modifications of codes that were be needed in order to increase the consistency and coherence of the analysis.

Sensitivity to Context: By using open-ended questions during the interview process, the researcher demonstrated sensitivity to participants' perspectives which encouraged them to talk freely and openly about what was important to them (Wilkinson, Joffe, & Yardley, 2004; Yardley, 2008). Sensitivity was also extended to the analysis stage of research

whereby sensitivity to the socio-cultural contexts of the participants was considered (Yardley, 2008). This means that the analysis did not simply impose researcher's categories or meanings, but was open to alternative interpretations. Before the peer analysis occurred, the research team coded the 6 interviews into individual meaning units along with a list of all the tags. Next, 25% of the meaning units were randomly generated by the research team and provided to a peer reviewer. Finally, the peer reviewer was instructed to label the 25% percent of meaning units presented to him using the tags to best of his knowledge.

Of the 93 meaning units, the peer evaluator matched 79 of the corresponding tags (85%) to those identified by the research team. The reasons behind the discrepancies were discussed. The majority of disputed tags resulted from a lack of clarification and description of the tags. For example, the peer reviewer felt the tag *Training- season plan* meant how swimmers train over the season, whereas the research team felt it was reserved for quotes speaking about how coaches establish and implement training sessions over the course of the season. After discussion, the peer reviewer agreed to change the tag to (*Goal setting - times*).

Following the tag clarifications, 8 of the 14 unmatched tags were agreed upon and remained unchanged. For the remaining 6 tags, a consensus between the primary researcher and the reviewer was reached and changes were made. The reviewer's experiential knowledge influenced the changes made by helping clarify the context of these 6 meaning units. The next step of the review process involved the research team creating sub-themes by grouping tags with similar meanings. Next, the peer reviewer was provided with a list of sub-themes and their definitions and was asked to place all 31 tags within each theme. The reviewer matched 29 of the 31 tags. The two discrepancies were quickly agreed upon.

The final step of the peer review process involved providing the peer reviewer with a list of themes with their associated definitions. The reviewer was instructed to place each of the themes to the definitions he deemed most appropriate. The peer reviewer matched all definitions of themes that corresponded with the research team's original choice. As a result the reviewer yielded an inter-rater reliability of 100% for the final step.

Participant feedback is a method used to establish the credibility of the findings and interpretations by involving the participants in the data analysis process (Yardley, 2008). Specifically, *participant feedback* allows participants to correct any errors and to challenge the interpretations of the researcher ensuring that their views are not misrepresented. It occurred in three ways for the current study. First, at the end of each interview the participant was allowed to add, modify, clarify, or exclude any comments or ideas made during the interview. Second, each participant was sent a narrative of themselves and was invited to add, modify, clarify, or exclude any comments or ideas contained in the document. Finally, each participant was sent a summary of the results and was asked to state any concerns, questions, or comments regarding the findings. *Participant feedback* allowed participants the ability to provide their voice in the research process (Yardley, 2008).

Commitment and Rigour: Commitment and rigour for the current study occurred through the use of several techniques. First, because the purpose of this study was to understand masters swimmers' experiences of their coach, it was important to select individuals that have particular relevance to that phenomena. Second, in-depth engagement with the topic based on the primary researcher's personal experience of playing for seven years on the Women's National Hockey Team, which often had members 35 years of age and older. In addition, the experience of aging while playing high performance sport provided the

researcher with applied experience regarding how aging affected her physiologically and psychologically. This experience allowed the primary researcher to understand the "culture" of elite sport, which may yield insights in masters athletics, and a more in-depth engagement with the topic.

Coherence and Transparency: Finally, this study aimed at achieving validity through the clarity and power of the argument made for the study and the way it was carried out. The clarity and power of the argument will depend on the fit between the theoretical approach adopted, the research question, the methods employed, and the interpretation of the data (Yardley, 2008). Having a solid grounding in the methods of qualitative descriptive study research as well as the theoretical frameworks for this study enabled the researcher to decide that the methodological approach chosen for this study was valid and most appropriate. In addition, clarity was achieved through transparency. Transparency refers to how well the reader can see exactly what was done and why (Yardley, 2008). Because qualitative research usually assumes that the researcher will influence the study, the current researcher was reflective throughout the process of researching. Reflexivity suggests the qualitative inquirer be attentive to and conscious of the cultural, political, social, linguistic, and ideological origins of one's own perspective and of the people one interviews (Patton, 2002; Lincoln & Guba, 1985; Yardley, 2008).

Another method that was used to ensure validity of the data was by keeping what is called a 'paper trail' (Yardley, 2008). A paper trail allows anyone wishing to link the raw data to the final report access to data of all the stages of analysis, based on a complete set of coded transcripts, together with a description of the development of the codes and interpretations (Yardley, 2008). Throughout the research process, the primary researcher kept

detailed notes which served to reassure others that the current study was completed and documented in a careful and professional manner.

Conclusion

Strean (1998) noted that sport psychology benefits from qualitative research because it provides a deep understanding of how people make sense of the world and context they live in. Through the use of thematic analysis and Yardley's (2008) guidelines for assessing the validity of a study, the current study carried out research that has practical implications for coaches, athletes, and coaching associations. Culver et al. (2012) claimed that qualitative methods could be used to better understand a phenomenon when little was known about a particular subject. This study broadened the coaching psychology research field by including the understudied topic of coaches of masters athletes.

Chapter 4

Results

This chapter will present the results of the six interviews conducted with the elite masters swimmers. A brief summary of the nature of the data will be provided including a description of the findings. The higher-order themes that resulted from the analysis will each be presented and explained. Quotes from the athletes will be used to illustrate their thoughts and opinions. The quotes will be followed by a label (e.g., A1 – A6) to credit the athlete that provided the quotation.

Data Overview

The six interviews resulted in a total of 369 meaning units. From these meaning units, 31 codes were created (see Table 2 for an alphabetized list of the codes). The number of meaning units discussed by each participant varied from 44(A2) to 75(A5). It is not unusual for the interviews to vary in the number of meaning units as a result of the semi-structured and open ended nature of the interviews. A higher number of meaning units does not necessarily imply that more or better information was provided by the participant. Some athletes may have expressed an idea more succinctly than others or some may have provided more examples or stories to support their ideas. For instance, A4 discussed the health benefits associated with masters swimming more than the other athletes. It may be that the other athletes did not value the health benefits as much as A4 or that other athletes did not focus as much on the health benefits as much as A4. Similarly, A2 spoke about the importance of open water swimming feedback whereas no other athlete mentioned this topic. In addition, not all themes were discussed by each athlete. Therefore, the frequency of each meaning unit from the total sample ranged from 1 to 10. This variation may account for the importance of

these topics to the particular athlete. For example, the code *coaching - motivation,* was frequently cited by the participants. This may reflect the importance of the motivation to the athletes or it may have been a direct response to a question asked (e.g., Describe the role of the coach). On the other hand, codes such as *coach attributes – respect* were rarely discussed by the athletes. Through an inductive approach, the 31 codes were organized into 9 sub-themes based on their similarity of content. These can be found in Table 3.

The final stage involved assembling the 9 sub-themes into three higher order themes following the same inductive procedure that was used in the previous level. The three themes that resulted from the data analysis were labeled as *masters athlete evolution, coaching knowledge and behavior* and *outcomes.* These three themes and the 9 sub-themes that comprise them are shown in Table 4.

Masters Athlete Evolution

This theme included 74 meaning units and represented 20% of the data. This category began by describing the athletes' early childhood sporting experiences. This section also examined the issues surrounding the athletes' decision to join their respective masters swimming clubs. Finally, upon joining their respective clubs, the swimmers discussed the age-related challenges they faced, and how these challenges affected their goals and experiences as masters swimmers.

Athletes' Sport Experiences. This sub-theme incorporated information about the people and experiences that influenced their athletic careers prior to becoming masters

Table 2

Meaning Units with Frequencies as Expressed by Each Participant

	A1	A2	A3	A4	A5	A6	Totals
Tags							
Aging - goal setting adjustments	6	0	1	0	1	3	**11**
Aging - training adjustments	4	0	0	0	7	1	**12**
Club characteristics	2	9	3	3	11	1	**29**
Coach attributes - friendship	1	1	0	0	0	0	**2**
Coach attributes - respect	2	0	1	0	0	1	**4**
Coach education	1	0	0	2	5	0	**8**
Coaching - competitions	1	0	4	6	1	3	**15**
Coaching - feedback	4	2	6	3	2	4	**21**
Coaching - goal setting	1	4	1	2	1	3	**12**
Coaching - motivation	6	3	3	7	7	1	**27**
Coaching - practice plans	1	2	5	3	1	2	**14**
Coaching - season planning	1	2	0	0	4	4	**11**
Coaching - team cohesion	0	0	0	2	1	1	**4**
Coaching - techniques	6	5	6	1	3	1	**22**
Competition - enjoyment	2	1	2	2	2	2	**11**
Competition - feedback	2	1	0	2	0	4	**9**
Competition - times	0	0	1	0	0	3	**4**
Previous swimming experiences	1	1	7	3	8	3	**23**
Financial Implications	0	1	1	0	0	0	**2**
Goal setting - times	1	3	3	0	2	3	**12**
Health benefits	4	1	3	11	4	1	**24**
Masters sport evolution	1	1	0	2	3	0	**7**
Other athletic experiences	2	2	3	0	0	0	**7**
Role of peers	0	0	0	3	1	4	**8**
Social benefits	3	1	1	6	4	4	**19**
Training - family and work commitments	2	1	4	0	2	3	**12**
Training - motivation	2	1	1	2	2	1	**9**
Training - scheduling	3	1	5	1	2	0	**12**
Training - season plan	2	1	3	2	1	1	**10**
Volunteer work	0	0	2	1	1	0	**4**
Volunteer work - coaching	0	0	0	3	0	1	**4**
Total	**61**	**44**	**66**	**67**	**76**	**55**	**369**

Table 3

Overview of Sub-themes and Meaning Units

	Total	%		Total	%
Communication	**82**	**22%**	**Teaching**	**34**	**9%**
Coaching - feedback	21		Coach education	8	
Coaching - motivation	27		Coaching - techniques	22	
Competition - feedback	9		Coaching attributes - respect	4	
Training - motivation	9				
Coaching - goal setting	12		**Performance**	**42**	**11%**
Coaching - team cohesion	4		Competition - times	4	
			Goal setting - times	12	
Organization	**76**	**21%**	Coaching - competition	15	
Coaching - season planning	11		Competition - enjoyment	11	
Coaching - practice plans	14				
Training - season planning	10		**Health Benefits**	**24**	**7%**
Club characteristics	29		Health Benefits	24	
Training - scheduling	12				
Age-related challenges	**37**	**10%**	**Social Benefits**	**37**	**10%**
Training - family and work commitments	12		Social Benefits	19	
Financial Implications	2		Role of peers	8	
Aging - goal setting adjustment	11		Coaching attributes - friendship	2	
Aging - training adjustments	12		Volunteer work	4	
			Volunteer work - coaching	4	
Athletes' Sport Experiences	**37**	**10%**			
Previous swimming experiences	23				
Masters sport evolution	7				
Other athletic experiences	7				
			GRAND TOTAL	**369**	**100%**

Table 4

Higher Order themes and Frequencies

Masters Athlete Evolution	**20%**	**Coaching Knowledge and Behaviours**	**52%**	**Outcomes**	**28%**
Athletes' Sport Experiences	10%	Communication	22%	Social Benefits	10%
Age-related challenges	10%	Organization	21%	Health Benefits	7%
		Teaching	9%	Performance	11%

athletes. Specifically, they briefly discussed their athletic careers from their youth to when they became masters swimmers. As children, 5 of the athletes participated in organized sports. None of the participants described sport as being the main focus of their childhood, including the participant who became an Olympic swimmer.

As adolescents, three of the six participants reported swimming competitively. Two of them who did not swim were competitively involved in other sports at the club level and the other participant did not compete at any sport as a child or adolescent. As they aged into their twenties, influences such as school, jobs, injury, and increased family commitments impacted the amount of time the athletes dedicated to sport. As a result, they took time off from sport between their University years until they joined masters swimming. One participant noted, “I gave up sport once we started having kids because it was just too much time to drive and to play.” (A3) Another participant noted, “I retired in 1984 with a shoulder injury. When I didn’t make the ’84 Olympic team I basically quit.” (A5). Finally, A6 described a combination of factors that

influenced him to quit swimming, “I think things were going on in my life and in the club that changed my focus. I couldn’t pinpoint one thing but work was a major factor.” (A6)

The amount of time athletes reported taking off before starting masters swimming sport ranged from 30-40 years for two participants to as little as 1-5 years in the case of three athletes. For four participants, health concerns inspired them to become re-integrated into competitive sport. As one participant stated, “I got involved with my current masters swim club because of my health.” (A4) Another participant noted:

> I have three daughters and one of my personal objectives is that I want to stay fit enough to keep up with them. Once a year as a family we take a trip to Niagara Falls and the girls bike while my wife and I rollerblade. I want to make sure I stay fit enough to keep doing those sorts of things because I really enjoy them. (A1)

Age-related challenges. The previous sub-theme focused on the childhood experiences of masters athletes and the factors that affected their competitive sporting endeavours. It also highlighted how health concerns were the main influence leading the athletes to become re-integrated into sport. The current sub-theme reveals how the athletes’ crafted their own career path, including how they adjusted their goals as a result of the aging process. Three of the six athletes described adjusting their goals as they became masters swimmers:

> The older you get, the more important it becomes to hang on to what you have. Progress is measured by weight and muscle and it is more about how you compare to others in your age group but it is not so much around time but how you feel and how you compare to others and just a sense of accomplishment and well-being. (A5)

> I have had different focuses during my masters swimming career. At first, there was no excuse not to do things, but as I became a father, there was something else more important than this. But I managed to keep up doing both things but over time I have become a little more serious about it. Because it was such a social thing, and the friends I made I became more involved in the club. Now I’m more busy and concerned about the whole experience. (A6)

The athletes also described how their training methods adjusted as they aged:

> As I've gotten older, I've realized that I'm just not as strong as I used to be. To adjust to my change in strength this August, sort of as a pre-cursor to 2014 Worlds, I went and got a personal trainer. The idea is that I will go twice a week and try to build back some muscle mass and muscle strength. (A1)

> I think the older you get you just have to start taking better care of your body and what you eat. You are going to spend more time regulating the amount of time you sleep and you work out. Those that are more successful are disciplined and they maintain a certain level of fitness. For me, it hasn't been a big problem because I am pretty conscious with swimming and cycling which helps me to regulate how I treat my body. But the biggest thing for me as I got older was nutrition and really focusing on what I eat and recovery is big one. (A5)

Similarly, the participants emphasized that their family and work life influenced their ability to train. The athletes described how their families supported their involvement in sport:

> When I joined the masters swim club I was concerned about the time it would take away from my family. After my daughter turned nine, I had talked to my wife and we discussed whether if I trained 2 nights per week was she going to be okay. So part of being a masters swimmer was just having the family enter a proper stage so I could dedicate the amount of time I wanted to this stuff. (A1)

Athletes described how the atmosphere at their club was a key element of their swimming experience. One participant noted, "I was attracted to this club mostly for the camaraderie and for the environment." (A5) Another participant stated:

> When I was first getting back into swimming my lane mates were crucial in helping me get over the initial fear and apprehension I had. Many times I wanted to quit because I found it so difficult but they explained they had all gone through the same process. (A4)

Coaching Knowledge and Behaviours

This theme included 192 meaning units and represented 52% of the total data. The previous theme illustrated the evolution of masters swimmers starting from their childhood and examined the factors that inspired them to join their respective masters swimming clubs. This theme investigates the athletes' perceptions of their coaches' main roles and responsibilities, including how they communicate, organize, and teach.

Communication. This sub-theme describes the feedback and motivation they received from their coaches, including how their coach framed their goals and targets. In addition, the athletes reported how the coach helped keep them focused and motivated when their training got more challenging. All of the participants discussed the importance of their coach in setting their goals:

> My coach and I work together to establish my targets and goals. For example I know that the bilateral breathing is important because I've read it in articles that you need to do this and there are lots of pros to this type of breathing. Now that I'm sort of moving up to the next phase of competing, I need to do it and my coach is reinforcing that idea also. (A2)

> From a standpoint of what we are trying to achieve in this swim season in terms of provincials or nationals, he is very much a part of our goal setting process because there is a realistic component that is required. (A1)

The coaches spent a great deal of time motivating their athletes. In particular verbal encouragement was an important motivator:

> In terms of the way that my coach motivates, when your body is screaming that it doesn't want to go anymore and you want to stop, our coach will be there with a yell or verbal encouragement like "come on you can do it… go push!" (A1)

> My coach motivates me verbally. He lets me know that I can do it and he also tells me what elements I can improve on. For example, he is currently pushing me to do bilateral breathing, which I know eventually will help my swim mechanics. At the moment, it is tough switching. (A2)

In addition to verbal motivation, the athletes described other methods the coaches used to motivate them. As one athlete described, "for the majority of masters swimmers, having a coach is motivation because they give you something to focus on whether it be a time or a skill." (A5) Other athletes reported similar experiences:

> The role of the coach when I started was to keep me there. They did that by encouraging me and were sympathetic to the fact that it was a tough workout for me. They tried to get me to focus on enjoying the swimming and not worrying about competing. And that is what I try to encourage also as a coach. I try to make the swimmers I'm coaching understand that the pain and the struggle will go away and it won't be as hard when you stay with it. (A4)

Finally, the swimmers noted that the format of the practices and training that their coach's planned also provided motivation:

> The way our coach sets up the training schedule is also motivating. He starts out with September being easier and the he ramps it up and then he gets nasty with the mileage. Then he backs off again at the right time. I am a fairly motivated individual myself and he is more of a guide. I know the path, but he's there to make sure that I don't step off at the wrong time or if I get caught at a fork in the path and he can help me choose which way I need to go. (A1)

> Masters coaches' also need to be very good about team environments and they need to understand how to motivate teams of people. They need to have more skill in periodization in their training programs and our coach gets it but very few coaches do. (A5)

Feedback was another important form of communication that the swimmers all discussed. Whether at competitions or practice, all the participants reported the importance of feedback from their coach and how it impacted their experience in masters swimming. One participant noted, "I think the fact that our coach provides feedback is the key. I like him as a coach because of the kind of feedback that I get from him." (A3) According to A4, "another of our coach's roles is to monitor the workout and to give feedback. A big thing is to help out with stroke technique and to answer questions."

Organization. In addition to motivating their athletes, the participants reported that their coaches' organization in terms of practice preparation and season planning were paramount to their enjoyment of masters swimming. As one participant described, "the thing that I like the most about having a coach is that their role is to designate the workout in terms of intensity and length and that you will naturally stay fitter or get fitter by doing it." (A3) Another swimmer noted:

> Our current coach puts out a plan for the whole year. You start at the beginning of the year at the bottom and you work your way to peak physical condition for whatever you

> are training for. Whether it be distance events or short distance events depends on the person. (A6)

The swimmers acknowledged that planning practices at the masters swimming level was not an easy task for a coach:

> It is also the coach's role to ensure that everyone is getting a benefit from that workout as possible and part of this comes from realizing that not everybody is at the same level. At our club we have development folks right up to former Olympians so coaches have to recognize that a workout needs to be modified to match a lane. Lanes are matched by ability and by workout. (A4)

> The role of the coach depends on the experience of the masters swimmer. He creates the workout and it is tailored to the skill level of each lane. So there are fast lanes and there are the slower lanes. The fast lane may swim further during each repeat, or swim more repeats. (A1)

Beyond each practice, four of the six swimmers noted that their coach had a plan for the season:

> The core workout, like the swim and run on Tuesday, Wednesday and Sunday is designed by our head coach and the coaching team. They design a program that they believe will prepare the entire club for swim meet or the events in the upcoming season. (A2)

> In addition, the coach has a plan when you will do your distance work, your warm-up, your core set, your cooldown and when you do overdistance. People are attracted to some form of structure because with it they know they can come on a Tuesday night, they know there will be a core set, they know that there might be some stroke work that they might do. They are attracted to that structure. (A5)

Teaching. In addition to their organizational and communication skills, masters swimmers described the importance of their coach's ability to provide technical instruction:

> Our coach is also looking to make sure our stroke is efficient. If you are really pushing and you're tired, typically your stroke falls apart and our coach is there to make sure that things don't fall off and get sloppy. (A1)

> Different individuals will have individual consultations to learn what they need to work on. Like for me, my coach wants me to work on the bilateral breathing basically for the next month or so until I'm comfortable enough with this element and then we will work more on my form. That is part of his plan and I've been working with him on that one. (A2)

Although 4 of 6 of the Masters swimmers in the study had previous experiences in swimming prior to joining the club, all of the swimmers recognized that they required technical stroke training. One swimmer noted, "technique is about the same as with age group swimmers, but you need to spend more time doing stroke mechanics the older you get because it helps you move through the water quicker."(A5) Another swimmer remarked:

> Our current coach knows swimming mechanics really well. He can pick out little things that people are doing and noticing small things to help people improve on the things they are doing. (A6)

Despite the fact that all athletes appreciated their coaches ability to teach, four of the swimmers reported that masters swimming coaches' would benefit from specialized coach training:

> I'm not sure if there is a masters' coaching clinic but I can see that being beneficial especially for strength building and motivation. There are different motivators for adolescent versus masters swimmers. Each group has distinct training motivation, and physical capabilities that are different and a masters swim coach could benefit from understanding the differences between both groups. (A1)

> I follow sport, and I follow the trends and I think it would be important for masters swimming coaches to follow the trends and be current in how training aids and physiological knowledge can help. (A5)

Outcomes

This theme included 103 meaning units representing 28% of the data. The previous theme highlighted the athletes' perceptions of the roles and responsibilities of their coaches. This theme includes the benefits or outcomes the athletes felt resulted from participation at their swim clubs. Specifically, the social, health and performance aspects of their lives will be presented.

Social Benefits. The social relationships that masters athletes had with their coaches and teammates were discussed, including how these relationships affected their overall enjoyment and experience as masters swimmers. Four of the six swimmers noted that their relationships with their coach went further than technical and tactical training tips, and involved a personal

relationship that affected their overall well-being. As one athlete noted, “my coach’s total encouragement and reinforcement that there was something in me that I didn’t notice for myself helped me the most as a masters swimmer.” (A4) Two of the swimmers described their relationship with their coach as friends:

> I would describe my relationship with my coach as that of friends. Besides the workout element we can talk about other items too like aging (laughs). My coach is one year older than me and so there are some other elements in life that we can talk about. I know what he is going through. (A2)

In addition to the social relationship with their coaches, athletes also described the social relationships they formed with other members of the club. As one participant noted, “I have met a lot of friends and new and wonderful people that I never would have met had I not joined the club.” (A4) Another swimmer stated:

> This club is a very social club. I have made a lot of friends at the club. When I moved to this area and I didn’t know a lot of people and being part of the club introduced me to a lot of people which is great because we are about the same age and we have the same interests. It’s become a very social club and I meet people who are super nice and great people so the club has been good in that respect. (A6)

The swimmers also described the camaraderie at their club. As one participant noted:

> I would say that I joined the club mostly for the people and camaraderie. It gets lonely swimming by yourself and I am not sure if you have tried to swim during public swimming but it is next to impossible because you have people at different levels and they are not doing interval training so it gets frustrating. (A5)

Health Benefits. Athletes described the health benefits resulting from their participation. Health was described as weight loss, improvements in energy, and lowered stress levels. As noted earlier, health was the biggest influence motivating the participants to join their clubs. Health remained an important outcome for masters athletes once they began training with their clubs:

> The club has also been good in keeping me healthy. At one point I lost about 40 lbs and although I have put a lot of it back on again, I’m sure I’ll be able to lose it. Also, because

> I will be wearing a bathing suit on the deck, I will be motivated to lose the weight rather than having a gut hanging out. (A6)

> Swimming also contributed to me losing about 52-55 lbs. and I started to feel better about myself. I just really loved getting into the pool. Low impact, didn't hurt anything other than I developed a bit of a swimmer shoulder but that is pretty common. (A4)

> What I also enjoy about Masters swimming is the fact that it is healthy and there are very few injuries you can get if you swim. You can run and ruin your knees or you can cycle and crash but the worst thing you can do in swimming is smell like chlorine when you are finished. (A3)

The swimmers also described how their involvement in swimming encouraged them to adopt healthy habits away from the pool. As one swimmer noted, "swimming made me change my whole lifestyle in terms of what I ate and what I did. I got back into a gym and was working out again and I got hooked on working out." (A4) Another swimmer noted:

> Since I first became involved in Masters swimming in 2010, I've lost 2 inches around my waist and dropped from medium to small. I haven't lost any weight because basically it I've turned fat into muscles and I feel better so I would say this is part of the motivation… it makes me want to go out early and run and bike and go to the swim workout and I'm enjoying it. (A2)

Performance. This sub-theme described the importance of performance on the overall experience of the athletes. Competition was one way that athletes measured their performance. As one participant described, "for me the competition aspect of masters swimming is really important. Some people don't compete and they don't want to compete, but for me I have always liked the competitions and competing."(A6) Another swimmer noted:

> What I like about competing is pushing myself. I enjoy the feeling after you finish, when you know you've done something that you have never done before and that not everyone can do it, and do it reasonably well. (A3)

One of the ways that the swimmers measured performance was in terms of the improvements they made during the season. As one swimmer noted, "I want to improve in swimming. As long as I continue to see improvement, I will enjoy it." (A3) Another swimmer added:

> I measure my progress as a swimmer based on myself. People just like to improve their times. I prefer to be in the top 10, and maybe that doesn't sound like much but if there are 30 or 40 people that is where I like to fit in. I mean I would rather be in the top 1 but what can you do? But I like to go to a swim meet and win but if it doesn't happen it is okay.

The athletes said their coaches played a role in helping improve their performances. As one swimmer stated, "coaches are important in order to ensure that we were getting the proper workout for each component of a competition." (A4) Others noted:

> The goal of practice is about becoming more efficient. I have a weekly log and I track our total distance travelled but not specific workouts and times so it has been difficult to say if I was doing 10 fifties on this time a year ago. (A1)

> My coach's role is also to tell me how to prepare for the race before I get there. I never had any interest in doing the research for myself. You start with smaller distances and then you do some longer distance stuff and you build strength and speed in that but I would not have even been able to put it together and to make a plan to figure it out. (A3)

In addition, the swimmers reported that having their coach present at their competitions affected their performance. As one swimmer noted, "I would like my coach with me during the competitions. They help with the mental aspect of the competition and it is always nice to see familiar faces." (A2) Another swimmer described a similar situation:

> Having feedback, especially during competitions, is very important because I have some specific meet goals. If it was more of a general fitness I probably would not need the feedback right away, although it is still important to find out how your stroke is, and did you cut your stroke off and that kind of thing. (A1)

Summary

The purpose of this study was to explore masters swimmers experiences of coaching. In particular, this study examined the journey of masters swimmers in sport and identified the various coaching characteristics and behaviours that they felt promoted positive outcomes. Six elite masters swimmers were purposely selected based on their age, gender, and current swim club affiliation. Two clubs were chosen because of their reputations in masters swimming and

geographical convenience. Both clubs strive to promote fitness through swimming, have a large clientele, and have had swimmers who are recognized as among the best in Canada. Both clubs employ full-time coaches and have several members that rank in the top 5 in their cohort. Participants were individually interviewed and a thematic analysis of the data revealed three themes: *masters athlete evolution, coaching knowledge and behaviour* and *outcomes*.

According to the testimonials of the swimmers, their progression and evolution into masters swimming was heavily impacted by health concerns and their individual sporting experiences. Other than the one participant who did not compete in swimming during his youth, all the athletes transitioned into adulthood with increased family and work commitments that affected the amount of time they were able to dedicate to sport. For all the participants, increased health concerns and a desire to challenge themselves physically and mentally were the main factors that influenced their desire to become a masters swimmer. The ages at which they began swimming as masters athletes varied from mid-twenties to late forties.

The swimmers noted that their coaches significantly impacted their experiences as masters swimmers. They outlined the most important roles and responsibilities of their coaches. Communication was important, including helping them set challenging goals. The coaches' organizational skills were also an important coaching tool. The athletes enjoyed the structure of their club, including the daily practices set by their coach. All of the participants enjoyed having a coach to correct their technique and to help them reach success at competitions.

The swimmers reported several positive outcomes related to their involvement in masters swimming. All of the swimmers felt that the camaraderie of the club was one of the best aspects of being a masters swimmer. In addition, the health benefits they acquired, such as weight loss,

improved energy and quality of life were also important to them. In addition, they enjoyed pushing their own personal limits during competitions.

In conclusion, the findings of this study represent one of the first accounts illustrating the perceptions of masters swimmers in relation to their coaches. Furthermore, this study provided information on the characteristics and behaviours that masters swimmers looked for in their coaches. These results highlight masters athletes' perceptions of their coaches' main roles and responsibilities, including how they communicated, organized, and taught. Furthermore, these findings illustrate the reasons masters swimmers gravitated to their sport, and the benefits they accrued from it. With a greater understanding of the preferences of masters swimmers, coaches will be able to work effectively with these athletes and foster personal and athletic outcomes of this understudied population.

Chapter 5

Discussion

The purpose of this study was to explore masters swimmers experiences of coaching. In particular, this study examined the journey of masters swimmers in sport and identified the various coaching characteristics and behaviours that they felt promoted positive outcomes. Three higher-order themes emerged from this study: *masters athlete evolution, coaching knowledge and behaviours,* and *outcomes.* The following chapter will discuss these categories as they relate to previous research on masters athletes and coaching.

Masters Athlete Evolution

This category described the masters swimmers' journeys in sport, beginning with their childhood experiences in swimming and culminating with their current involvement in masters swimming. This section revealed the factors surrounding the participants' decision to join their respective masters swimming clubs and concluded by discussing their physiological challenges. According to both the Multidimensional Model of Leadership (Chelladurai, 1978) and the Mediational Model of Leadership (Smoll & Smith, 1989) the behaviours athletes prefer are largely influenced by the member characteristics (e.g., gender, ability, age). Therefore, the preferences for specific forms of behaviour from the coach will be partly shaped by context of the group and their evolution as athletes.

The current study provides insights into the various athletic paths of masters swimmers. It can be speculated that their diverse athletic experiences influenced why they joined their masters swimming clubs and affected the behaviours and characteristics they preferred from their coaches. The current findings are consistent with previous literature on the career paths of masters swimmers (Grant, 2001; Stevenson, 2002). For instance, when Stevenson interviewed 29

masters swimmers with ages ranging from 21 – 57, with the goal of understanding how their involvement in masters swimming began, he found that 18 of the 29 participants in his study joined their masters swimming club with little or no previous experience in swimming. In addition, when Grant interviewed 15 masters athletes over the age of 70 who had recently participated in the South Pacific Masters Games, he found that most of them had not competed in their chosen sport for periods ranging up to 60 years. Moreover, they had varied backgrounds in sport and many had never competed in their chosen sport before becoming masters athletes. Thus, research suggests that there is no common career progression pattern in masters swimming. In the current study, 3 participants competed in elite swimming in their youth and adolescence, 2 participants had limited experiences in swimming in their youth and adolescence, while 1 participant had no experience in sport during his childhood. In addition, while one participant was new to swimming, others experienced varied periods away from swimming ranging from 5 to 40 years. Based on these results and previous literature, it can be inferred that the level of athletic experience masters swimmers incurred in their youth, and the duration of their absence from sport, varied among masters swimmers. Since masters swimmers have such diverse backgrounds in swimming, having a coach that is able to tailor their coaching style based on each individual swimmer's needs would be an important attribute.

Although the athletes reported diverse athletic paths leading them to masters swimming, all participants reported that health concerns were their major motivating factor. Health concerns included being overweight and a desire for greater physical fitness. The human aging process is associated with a significant decline in neuromuscular function and performance (Doherty, Vandervoort, & Brown, 1993; Roos, Rice, & Vandervoort, 1997; Vandervoort, 2002). The primary mechanism underlying this decrease in muscle strength is referred to as sarcopenia and

is associated with a decline in muscle mass and muscle strength (Volpi, Nazemi, & Fujita, 2004). Research has begun assessing the multiple factors that lead to its development and formulating interventions to prevent or partially reverse it (Doherty, 2003). In relation to sarcopenia and masters swimmers, resistance training interventions can partially reverse losses of strength (Frontera, Meredith, O'Reilly, Knuttgen, & Evans, 1988; Porter, Vandervoort, & Lexell, 1995; Vandervoort, 2002). The literature on the physiological aspects influencing masters athletes states that despite significant changes in their physical competence and body function, masters athletes still view physical activity as an important way to curb these changes (e.g., Dionigi, 2002; Grant, 2001; Langely & Knight, 1999). For example, Grant reported that all participants acknowledged changes in their physical competence and body functioning over the previous 20 years. Similarly, participants in the current study reported that changes in the physical body caused frustrations and they viewed regular physical activity as an important way to help negate the impact of these ailments. According to the health belief model, the likelihood of an individual's engagement in preventative health behaviours (such as exercise) depends on the person's perception of the severity of the potential illness as well as their appraisal of the costs and benefits of taking action (Becker & Maiman, 1975). As such, this model is applicable to master athletes because it suggests that the athletes in the current study joined their club because they believed that the benefits they would gain from participation outweighed the cost of time and effort they were investing. In addition, all the participants described periods of declined involvement in physical activity prior to joining their swim clubs. This prolonged absence in sport has been postulated to be as responsible for much of the physiological decline rather than simply aging itself (Maharam et al., 1999). Nevertheless, the end result was that all the athletes had experienced a change in their perception of their physiological capabilities. Thus, part of the

role of masters coaches is to understand the physiological changes that masters athletes undergo as they age.

Results from this study also suggested that the participants reported psychological adjustments associated with the physiological changes they observed. Research suggests that masters sport participation represents a strategy for coping with the aging process (Dionigi, 2002; Langely & Knight, 1999; Roper, Molnar, & Wrisberg, 2003). In her study with 110 competitors ranging in age from 55-94 years old from the 8th Australian Masters Games, Dionigi explored the role competitive sport participation played in identity management. Among the conclusions, continued participation in sport and keeping fit were strategies to adapt to the aging process, similar to other research as well on the aging process (Frey & Ruble, 1990; Langley & Knight, 1999). In the current study, coping with these physiological changes occurred through modifying one's technique, strategy, goals, or definitions of success. Similar to the masters athletes in Langley and Knight's study, the participants of the current study described coping with the aging process as the first step of their masters swimming evolution because it helped them set attainable performance goals and training goals that would result in prolonged participation in swimming. Finally, these results also have implications for both the Multidimensional Model of Leadership and the Mediational Model of Leadership. According to these models, the more coaches are attuned to both the contextual factors and the unique personal variables of masters swimmers, the more successful they will be adjusting their behaviours to their athletes' needs, which may ultimately lead to better performance outcomes and athlete satisfaction.

Coaching Knowledge and Behaviours

This theme described the participants' perceptions of their coaches' main roles and responsibilities. The main medium through which coaches exerted their influence on sport

participation was their own behaviours (Horn, 2002; Smith, Smoll, & Curtis, 1979; Smoll & Smith, 1989). These behaviours are informed by the knowledge a coach possesses (Côté, Salmela, Trudel, Baria, & Russell, 1995). More precisely, the coach's knowledge and understanding of different demands from the environment impacts his/her coaching behaviours, which directly impacts the success of his/her team. Thus, a coach's success relies on his/her ability to display specific leader behaviours in response to an amalgamation of demands from the environment (Challedurai, 1978). Also, the importance of athletes' perceptions of their coach's behaviours for athlete-related outcomes has been recognized in the coaching-efficacy literature (e.g., Myers, Feltz, Maier, Wolfe, & Reckase, 2006). In the current study, communication, organization, and teaching emerged as important qualities that masters swimmers looked for in their coaches.

All of the athletes in this study discussed how important and valued their regular communications were with their coaches. These took place through one-on-one verbal dialogues which occurred either at the pool or outside the pool during individual meetings. During one-on-one meetings the participants described how their coaches' discussed setting athletic goals with them, always taking into the athletes' family and job commitments. Consistent with research from Philippe and Seiler (2006), although the athletes had the final say in setting their seasonal goals, the swimmers felt it was important to reach an agreement with their coach on their goals. An interesting distinction with the current study was the contextual factors that surround masters athletes, such as their age, family, and work commitments. According to the Multidimensional Model of Leadership, situational characteristics (e.g., the goals of the group or the individual), and the social and cultural context of the group set the parameters for *required behaviour* (Chelladurai, 1978). *Preferred behaviours* refers to the preferences of the athletes in terms of the

support the coach gives them, the type of instruction they expect, and the feedback they require (Chelladurai, 1978). Therefore, the preferences for specific forms of behaviour from the leader will be partly shaped by context of the group. For example, 5 of the 6 participants had children, 4 of the 6 worked 38 hours or more a week at their job, and 5 of the 6 were married. These contextual factors can create stress for the swimmers in terms of the amount of time they spend away from their families and work, which could affect their training sessions. As such, the swimmers preferred that their coaches helped them set realistic goals for the season that accounted for their contextual factors. The contextual factors facing the masters swimmers in the current study differ from those athletes competing at other levels of sport (e.g., Davies, Bloom, & Salmela, 2005; Draper, 1996; Newin, Bloom, & Loughead, 2008; Wilson, Bloom, & Harvey, 2010). For example, Newin and colleagues found that parental involvement placed unnecessary pressure on both the players and coach in youth sport hockey. In a study with high school coaches, the physical environment such as limited space and equipment affected how coaches set goals and worked with their teams (Wilson, Bloom, & Harvey, 2010). In sum, the results of the current study emphasize the importance of coaches of masters athletes having one-on-one meetings where they learn about their athletes' family and work constraints and use this information to help their athletes set performance goals for sport.

The athletes in the current study also described coach motivation as an important aspect of their communication skills. Specifically, whether at competitions or practices, all the participants reported that verbal encouragement from their coach was a key factor influencing both their enjoyment and athletic performance. The athletes felt their coaches' encouragement helped them stay focused on their goals and pushed them to improve their current skills and performances. These results are consistent with previous literature which found that athlete

motivation was affected by their coaches' behaviours (Mageau & Vallerand, 2003). Moreover, research has also revealed that the effectiveness of the motivational climate depended on the athletes' interpretations of their coaches' behaviours (Stein, Bloom, & Sabiston, 2012). Stein and colleagues found that coaches needed to spend time understanding their athletes' needs and preferences to properly set motivational targets for them. With respect to masters athletes, research by Medic and colleagues (2012) suggested that the motivational trends among middle-aged and older masters athletes were different than with younger cohorts. Research by Ogles and Masters (2000) found that older runners (aged 50 years and older) were mainly motivated by health reasons, weight concerns, life meaning, and the need for affiliation with other runners, whereas younger runners (aged 20 years and less) were mainly motivated by goal achievement and competition. In sum, the current findings contribute to the literature on the impact of coaches on athlete motivation. More precisely, coaches of masters athletes need to understand the motivational desires and preferences of their athletes so that they can adjust their communication style and comments to suits their needs.

In addition to communication, the athletes in the current study described organization as a key coaching role. Specifically, all six athletes noted the importance of receiving a seasonal plan from their coaches. Athletes described how their season was broken down into smaller training blocks and that training sessions were purposeful and deliberate. Having a detailed seasonal plan allowed the athletes to block off time in their calendars so that they could make arrangements in both their personal and professional lives that would not interfere with their training and competitions. Research has suggested that organization is a crucial coaching quality that can lead to both individual and team success, and is often overlooked and misunderstood by inexperienced coaches (Bloom, 2011; Côté & Salmela, 1996; Desjardins, 1996; Vallée & Bloom,

2005). Moreover, Bloom (2002) noted that effectively organizing a season can allow the coach to create a solid foundation for the season that is likely to lead to a positive learning environment for athletes by creating innovative and enjoyable training sessions. Thus, the results from the current study are similar to previous research in that the athletes acknowledged organization as a key coaching attribute that affected their experience in masters sport. A unique finding from the current study was the amount of flexibility and creativity that masters swimming coaches must have in order to keep their athletes motivated and successful. Masters swimming clubs often have participants from varied backgrounds and with varied levels of competence, ranging from previous Olympic swimmers to those with no previous competitive swimming experiences. Furthermore, not all masters swimmers seek to compete at provincial or National competitions; some wish to train in a non-competitive structured recreational environment. Overall, the current findings contribute to the existing literature which highlights the importance of organization as a preferred coaching component while adding that masters coaches need to adapt to meet the needs of a potentially diverse group of participants.

Finally, results of the current study highlighted that masters athletes felt the teaching of technical skills was an important coaching attribute. Although 4 of the masters swimmers in the current study had previous high level competitive experiences in swimming prior to joining their club, all six of them recognized and wanted technical stroke training form their coach. This varied from bilateral breathing techniques to techniques for improved stroke efficiency to basic stroke mechanics. Interestingly, Tharp and Gallimore (2004) found that legendary UCLA basketball coach John Wooden predominantly used technical cues and taught fundamental basketball during his training sessions. This was necessary, according to Wooden, because he believed each player learned differently and had a different skill set. Similarly, both the

Multidimensional Model of Leadership (Chelladurai, 1978)and the Mediational Model of Leadership (Smoll & Smith, 1989) models postulate that coaching effectiveness is demonstrated through the overt coaching behaviours that are directly influenced by a range of antecedents, namely coaching values and beliefs Coaching effectiveness refers to "[t]he consistent application of integrated professional, interpersonal, and intrapersonal knowledge to improve athletes' competence, confidence, connection, and character in specific coaching contexts" (Côté & Gilbert, 2009, p. 316). Overall, the current findings contribute to the existing literature by highlighting the importance of coaching expertise as a preferred behaviour among elite masters athletes.

As previously mentioned, masters swimmers varied in their backgrounds from no swimming experiences to those who swam at the University and Olympic levels. In addition, the amount of time athletes reported taking off before starting masters swimming sport ranged from 30-40 years for two participants to as little as 1-5 years in the case of three athletes. As a result of taking time away from this sport, the athletes may have felt they lost some of their technical skills. Many articles on masters athletes point to a decrease in confidence and competence due to their prolonged absence from sport (Dionigi, 2002; Grant, 2001; Stevenson, 2002). Since research has shown coaches to be an influential source of efficacy information for athletes (Feltz & Lirgg, 2001; Vargas-Tonsing & Bartholomew, 2006), it is reasonable to conclude that their importance for masters athletes is far greater than at other levels of competition given the prolonged absences that they likely have experienced. One manner of improving masters athletes' competence and confidence is by delivering sound technical instruction during training sessions. This unique learning discrepancy of masters athletes is one of a number of factors that

would benefit from high-quality coaching education specifically geared for this athletic population.

Outcomes

This theme discusses the benefits or outcomes that resulted from their participation as masters swimmers. Specifically, their responses focused on the social, health, and performance aspects of their experiences. Their responses were crafted around the behaviours of their coaches (Murray, 2006). Both the Mediational Model of Leadership (Chelladurai, 1978) and the Multidimensional Model of Leadership (Smoll & Smith, 1989) note that coaches who are able to apply and align their coaching expertise with particular athletes and situations which maximize athlete learning outcomes are the ones who demonstrate coaching effectiveness (Côté & Gilbert, 2009). This section will examine these three outcomes from the athletes' perspectives and explore what role their coaches played in fostering them.

In the current study, the athletes were generally surprised and pleased with the social benefits that arose from participating in their swim clubs. Although making friends and socializing did not initially motivate the participants to join their clubs, they all felt that it was an outcome that improved their experience as a masters swimmer. The current participants swam at two clubs which had unique methods of promoting the social benefits among their members. At one of the clubs the participants described how the coach planned social events outside of the club setting which strengthened club members' bonds of friendship. These monthly social events were held at a local restaurant where the coach named the club athletes of the month and informed the members of upcoming events and competitions. According to the athletes, these social events helped build camaraderie among the competitive and recreational swimmers and generated a greater sense of belonging among all team members. As a result, members felt closer

to each and were better able to motivate each other through difficult workouts. These results are similar to Becker (2009) who researched elite university athletes' experiences of great coaching. According to Becker, athletes reported that coaches established a family-like environment by taking an interest in them and engaging with them on and off the field which fostered a positive team environment that included support, caring, and mutual trust. Similarly, Steward and Owens (2011) asked University athletes to list the behavioural characteristics of their favourite coaches and they found that social support emerged as the most important dimension of coaching. The term was characterized as a coach providing a positive group atmosphere. Although coaches take on multiple roles such as teacher, mentor, and character builder (Gould, 1987), they also play an important role in the development of task and social cohesion (Bloom, Stevens, & Wickwire, 2003; Murray, 2006; Newin, Bloom, & Loughead, 2008; Ryska & Cooley, 1999; Turman, 2003; Westre & Weiss, 1991; Yukelson, 1997). Furthermore, Murray revealed that coaches who demonstrated leadership behaviours such as social support had teams that were more task and socially cohesive. Taken together, it is conceivable that if cohesion develops within a team, it begins with the behaviours of the coach.

The participants at the other swim club did not have the same coach-organized social events outside of club training, although they still felt that the interactions which took place during training and competitions provided them with social benefits. Specifically, the participants often joked around or chatted with other members during coach allocated rest periods between sets. Whether intentional or not, it appears that the coach from that swim club helped strengthen the bonds between members by giving them common rest breaks where they had opportunities to socialize with other team members. These findings complement those of Bloom and colleagues (2003) who revealed that elite coaches carefully planned a number of different team building

activities into their training regiments with the goal of increasing social cohesion within the group. Social cohesion refers to the orientation toward developing and maintaining social relationships among team members (Carron 1985). In fact, Bloom and colleagues (2003) and Loughead and Bloom (2013) noted that building social cohesion was one of the most pivotal roles of the coach. In the current study, the importance of social cohesion rested in its ability to create a positive social atmosphere for masters athletes to train and compete. By incorporating team bonding activities such as planned social events or periodic breaks during training, coaches of both clubs were able to foster social cohesion among members resulting in a positive social outcome for their members.

The current results also mirror the findings of the self-determination theory, a prominent framework for understanding motivation (Deci & Ryan, 2000). This theory postulates that intrinsic motivation, extrinsic motivation, and amotivation are needed to make sense of a full range of motivational processes (Vallerand, 2007). Intrinsic motivation refers to performing an activity for itself and the pleasure and satisfaction derived from participation (Deci, 1971). Extrinsic motivation refers to doing an activity as a means to an end and not for its own sake (Vallerand, 2007). Amotivation is the absence of any intrinsic or extrinsic motivation. According to the theory, certain environmental factors can hinder or undermine self-determination and some can help promote it (Deci & Ryan, 2002). One of the main tenets of this theory is that of relatedness. Relatedness is categorized as the need to feel belongingness and connectedness with others and is one factor which promotes motivation. This is important for coaches of masters swimmers because although athletes may not outwardly express a desire to socialize with members at their clubs, having members that feel a connection to one another helps motivate them to remain with the club and participating in swimming.

The coach-athlete relationship also revealed interesting social benefits for the masters swimmers. More than half the participants noted that their relationship with their coach went further than technical and tactical training tips, and involved a personal relationship that affected their overall well-being. Half the participants even considered their coach a personal friend. According to the swimmers, the close age proximity between themselves and their coach influenced their relationship because "there are some other elements in life that we can talk about. I know what he is going through." These findings were consistent with previous findings that revealed the importance of the "human side of coaching" (i.e., Bloom & Salmela, 2000; Jowett & Cockerill, 2003; Lyle, 2002; Vallée & Bloom, 2005). Specifically, Vallée and Bloom found that the success of university basketball teams was partly attributed to the relationships coaches formed with their athletes. According to the Mediational Model of Leadership, an important variable that mediates the relationship between coaching behaviours and athlete outcomes such as motivation, performance, behaviour, beliefs, attitudes, and evaluative reactions is athletes' *perceptions* of these behaviours (Smoll & Smith, 1989). This was demonstrated in a study by Becker (2009) where athletes ranked their close relationship with their coach as one of the most significant aspects of their athletic experience. Previous research also suggests that when coaches display a genuine interest in their players, not only as athletes but also as individuals, they establish relationships that often extend beyond the sport environment (Bloom, Falcao, & Caron, in press; Durand-Bush & Salmela, 2002; Gould et al., 1999). The findings of the current study add to the current literature by including the previously understudied topic of masters athletes. Given the age proximity between the athletes and their coaches, it was interesting to learn that the masters athletes' also preferred a coach who took an interest in their life outside of sport.

Health benefits were another important outcome resulting from participation in masters swimming. These benefits were described as weight loss and improvements in energy for some, while others described health benefits as delaying the aging process by preserving their current physique or as way to get their body back to its previous shape. Previous research on masters athletes has indicated that health benefits were a common motivator influencing involvement in masters sport (Dionigi, 2002; Grant 2001; Ogles & Masters, 2000; Stevenson, 2002; Summers, Machin, & Sargent, 1983). Specifically, research by Grant revealed that despite significant changes in their physical competence and body function, physical activity among masters athletes was viewed as an important way to curb these changes. This is important because research has found that adults who believe that physical and cognitive decline is an inevitable part of growing older may disengage from activities that challenge these abilities in order to preserve their self-image (Baker & Horton, 2011). Therefore, emphasizing the health benefits that masters swimming participation provides is an important consideration for masters coaches. Promoting this outcome to adults from a coaching perspective would entice greater participation from this demographic.

All of the athletes in the current study described how their involvement in swimming led to the adoption of healthier habits outside the pool. These habits included eating healthier, joining a gym, and adopting better sleeping patterns. For the majority of athletes, these behavioural changes came from recognizing they were an elite athlete. As one athlete said, “your body is your temple and you will learn this, and the older that you get the more careful you need to be with your body.” Research by Levy and Myers (2004) has suggested that those with a more positive expectation of the aging process were more likely to engage in other health related behaviours, such as eating a balanced diet and making regular visits to the doctor. In addition,

research has found that masters athletes maintain higher-than-average levels of physical activity throughout the lifespan (Hawkins, Wisewell, & Marcell, 2003), and this population generally represents some of the healthiest older adults (Shephard, Kavanaugh, Mertens, Qureshi, & Clark, 1995). The athletes in the current study all reported developing a more positive expectation of aging as a result of their participation as a masters athlete compared to before they joined their masters swim club. As such, these athletes changed their perceptions on aging and adopted healthier habits outside the pool to enhance the performance benefits that they were seeing in the pool.

All six athletes reported that performance was an important outcome influencing their masters swimming experience. Of particular importance was the need to detect improvement in their technique combined with obtaining faster swimming times as opposed to winning competitions. As one athlete stated, "I really enjoy the competition part of masters swimming, not against people but against myself and the clock." Only one athlete in the study reported that winning competitions was the most important aspect of competition for him. As he stated, "I train hard and hit the gym every day. If I don't win I feel like I have nothing to show for all the hard work I put in." Regardless of their viewpoint, all the athletes viewed competition positively and enjoyed the challenge it presented them with. This finding aligns with research by Hodge, Allen, and Smellie (2009) who looked at the achievement goal orientations of 393 masters athletes from six different sports competing at the New Zealand Masters Games. According to achievement goal theory, a task-oriented person seeks to improve his/her ability and the criteria for judging their success are self-referenced and are based on personal best times during competitions (Nicholls, 1998). In contrast, an ego-oriented person seeks to demonstrate his/her ability by being the best and out-performing others and winning competitions, and the criteria

employed to define success are other-referenced (Nicholls, 1998). In their study, Hodge and colleagues found that masters athletes were primarily task oriented and tended to have longer commitment, enjoyment, and participation in sport. The current results mirror these findings by revealing the participants primarily adopted a task oriented approach to competition whereby they focused more on their times and technique rather than their placing. This finding is significant for several reasons. First, Frey and Ruble (1990) studied masters athletes and found that older athletes relied more on peer comparisons for their sense of competence. This would suggest that masters athletes were more ego oriented than the athletes reported in the current study. Second, this finding is important because past research suggested that elite athletes tended to have high scores on both task and ego orientation (Hardy, 1997; Pensgaard & Roberts, 2000; Roberts & Ommundsen,1996). This suggests that elite masters athletes' differ from their younger elite athlete counterparts. Finally, past research suggests that the coach is the main creator and maintainer of the motivational climate on their team (Ames, 1992). Thus, if masters coaches were to overemphasize outcome criteria and the results of competition, many masters athletes could find that pressure to be extremely distressing, especially those with high task orientation (Pensgaard & Roberts, 2002). This is important for coaches of masters athletes because it suggests that they should emphasize the personal growth opportunities that competition provides rather than focusing on making the podium or winning the competition.

The athletes in the current study all reported the importance of coaching in achieving improved performance outcomes. Through their coach's technical knowledge and instruction at practices, the athletes all felt that the coaches helped them achieve greater results than if they had trained alone. As one athlete stated, "I think that masters swimming is more than just swimming lengths. There has to be some interval training and there has to be some technical skill training

otherwise it is kind of like an open swim with a lifeguard." Examinations of athletic performance have demonstrated inevitable and increasingly greater physiological age-related declines as athletes advanced from the age of peak function into middle and old-age (e.g., Baker, Tang, & Turner, 2003; Bortz & Bortz, 1996; Hartley & Hartley, 1984). Despite this, Krampe and Ericsson (1996) noted that performance decline can be moderated if individuals engage in large amounts of domain-specific "maintenance practice." Their theory is called the selective maintenance account and posits that individuals must practice continuously over the course of their lives in specific practices that are most relevant for improving performance (Krampe & Ericsson, 1996). The concept of maintenance practice is significant for masters athletes because it suggests that a skilled coach can help them maintain and improve their performances (Young, Medic, Weir, & Starkes, 2008). Research by Young and colleagues supported the theory of maintenance practice among masters athletes. Among their conclusions, age related decline became less pronounced for masters runners aged 40-59 when the athletes' engaged in intensive and highly specific practice. Without coaches' instructions and structure, athletes lack the necessary information and experience to progress in their sport (Mageau & Vallerand, 2003). The current results suggest that although masters athletes have attained more sport experience, many are still affected by the behaviours of their coaches (Medic, Young, Starkes, & Weir, 2012). Regardless of the level of competition the athletes competed in during their youth, having structured practices and detailed instruction from their coach was an important aspect of maintaining their performance and enjoyment of sport.

Summary

Athletes' perceptions of coach behaviours makes up the foundation of their evaluation of their athletic environment (Newton & Duda, 1999). The more positively athletes' perceive their

coaches' behaviours, the more positively they report their athletic experiences (Stewart & Owen, 2011). Many elite-level coaches have established an environment where the skills and values taught from their sport were promoted and encouraged in both sport and in life (Becker, 2009; Duchesne, Bloom, & Sabiston, 2011; Mallett, 2005; Vallée & Bloom, 2005). Creating these positive environments was not about *what* the coaches did, but rather *how* they did it. Both the Mediational Model of Leadership (Chelladurai, 1978) and the Multidimensional Model of Leadership (Smoll & Smith, 1989) postulate that coaching behaviour is context dependent. This means that paying particular attention to master athletes' evolutions in sport is an important step for coaches because they reveal the unique contextual factors of masters swimmers (age, time restraints, expectations, etc.,) which impact the behaviours they prefer from their coaches. In the case of this study, the athletes revealed how their coaches were able to foster environments that provided their athletes with positive social, health, and performance outcomes. This was accomplished through the coaches' execution of the preferred behaviours and characteristics of their athletes' in areas such as communication, organization, and teaching.

Chapter 6

Summary

Since its inception in the 1960s, masters athletics has continued to grow and flourish in Canada and around the world. While the first World Masters Games (WMG) made its debut in Toronto in 1985 with approximately 8,300 participants, the WMG held in Torino in 2013 hosted over 50,0000 participants (http://www.torino2013wmg.org/torino2013?lang=en). Of all masters sports, swimming has continually grown in popularity since its inception in the 1970s. Today, swimmers belong to regional clubs and may choose participation as a competitive venture or simply as a social activity. Those competing in the competitive stream can choose to swim in provincial swim meets, National swim meets, and international swim meets. Despite the large number of participants swimming both at the competitive and recreational streams, masters coaching remains a highly underrepresented topic (Gilbert & Rangeon, 2011). Thus, the purpose of this study was to explore masters swimmers experiences of coaching. In particular, this study examined the journey of masters swimmers in sport and identified the various coaching characteristics and behaviours that they felt promoted ideal training and competition environments that led to improved social, health, and performance outcomes and identified the various coaching characteristics and behaviours that they felt promoted ideal training and competition environments that led to improved social, health, and performance outcomes..

Participants were six male masters swimmers aged 50 to 65 who competed both provincially and nationally. Participants were contacted through email, informed of the content of this study, and asked to participate. This study collected data using a qualitative interview technique. Each athlete was interviewed individually for a period of one to two hours in various locations in southern Ontario. Thematic analysis was used in this study (Braun & Clarke, 2006).

A total of 369 meaning units emerged from 48 pages of single-spaced text. One category examined the athletes' early childhood experiences in sport, how and why they transitioned from sport, and why they joined their respective masters swimming clubs. The category also described how masters athletes dealt with age-related challenges that they encountered and how they managed their time between work and family commitments. Another category described the way the coaches' communicated with their athletes, the way they organized the season, and the way they taught swimming and fostered skill development with their athletes. Finally, participants described the outcomes resulting from their participation in masters swimming, including in the areas of social, physical, and competitive contexts.

Conclusions

Within the confines and limitations of the current study, the following conclusions were shared by the participants and appear warranted:

- All the participants discussed the importance of having a coach that fostered their development of swimming skills.
- The career progression among masters athletes is varied from those who never competed in sports in their youth, to those who competed at the international level.
- All the participants described the importance and value of having highly-structured practices.
- All the athletes were motivated to stay healthy.
- All the participants discussed the importance of the feedback they received from their coach, and how it motivated them and taught them how to become a better swimmer.

- All participants were guided by their coach to set realistic goals.
- Competition was enjoyed by all the athletes, although one athlete put more importance on his outcome compared to the other five.
- All participants discussed the importance of camaraderie and the social relationships that resulted from their swimming clubs.
- Four of the six participants reported making adjustments to their training or goal setting techniques by shifting their focus from outcome goals to process goals.

Practical Implications

The current study is of interest to the masters athlete community, as well as to the broader coaching community. Currently, there are very few resources available worldwide regarding coaching masters athletes. Specifically, Australia and the United Kingdom who have extensive coaching development programs do not include masters athletes in their coach education programs. In Canada, the results can be utilized by the Coaching Association of Canada (CAC) who oversees the development of formal coach training in masters athletics. As the masters athletics coach certification program is in its early stages of development (http://www.coach.ca/coaching-masters-athletes-p153315), this study could provide information on coaching practices that could assist with curriculum development of the National Coaching Certification Program (NCCP) for masters athletics. The current resource developed by the NCCP is titled "Coaching Masters Athletes" and this resource was designed to help new masters coaches' become acquainted with some general coaching guidelines related to masters athletes (http://www.coach.ca/files/Coaching_Master_Athletes_FINAL_EN.pdf). In particular, this resource focuses on non-competitive masters athletes and highlighted the importance of developing proactive plans for training and competition, creating stimulating and challenging

training environments, as well as considering that these athletes have other commitments in their life that affect the amount of time and energy that they can dedicate to sport. Although the results from the current study strengthen the resources' claims regarding teaching skills effectively, facilitating goal-setting, and planning proactively for the season (Coaching Association of Canada, 2012), it adds to this resource by distinguishing recreational from elite swimmers and the implications that competition has on those processes. All the participants in the current study were elite masters swimmers who enjoyed challenging themselves and competing at the highest levels. Currently, the NCCP differentiates *community coaches* from *competition coaches* in their coaching streams (Coaching Association of Canada, 2013). *Community coaches* are those who are looking to get involved with participants who are new to a sport. *Competition coaches* are defined as those looking to work with athletes over the long term to improve performance. Both streams realize that the needs of the athletes within those domains differ and as such, the coaches need to be aware of different nuances and employ different coaching techniques. Thus, the current study helps the NCCP resource cater to the *competition coaches* within masters swimming.

Many of the athletes in the current study who had previous experience in sport commented how challenging it was to adjust their goals and training techniques to accommodate the age-related changes in their bodies. Interestingly, 5 of the 6 athletes reported that they now judged their performance based on their swim times rather than their placing at competitions. This is important for coaches of masters athletes because it suggests that they should emphasize the personal growth opportunities that competition provides rather than focusing on making the podium or winning the competition.

The athletes in the current study also alluded to the importance of coaching in achieving improved performance outcomes. All six athletes recognized and wanted technical stroke training form their coach. This training varied from bilateral breathing techniques to techniques for improved stroke efficiency to basic stroke mechanics. The athletes felt that this technical training was important to attain better swim times and stay motivated to participate. This suggests that masters swim coaches play a prominent role in enhancing the quality of the athletic experience of their athletes. Presently, masters coaches receive no formal training about the needs of their elite athletes. As demonstrated through the Coach Effectiveness Training Program (CET), trained coaches can modify their behaviors which, in turn, positively influence athlete's self-perceptions, anxiety, and adherence levels, as well as the psychosocial development (Smith, Smoll, & Curtis, 1979). Therefore, the findings from the current study can be disseminated to key stakeholders (e.g., MSC, and Sport Canada) who play an influential role in the training and education of these coaches.

Limitations and Recommendations

The objective of the current study was to address the limited research examining coaches of masters swimmers. These findings may only be indicative of male swimmers aged 50-65 and their coaching experiences. Moreover, these findings were gathered from North American athletes' perspectives and may not be applicable to other masters sport settings around the world. Finally, as the study pertained to elite masters swimmers with a minimum of 5 years experience in masters swimming, one must be cautious not to generalize these results to recreational masters swimmers.

There are several future directions researchers can consider. For instance, it may be interesting to replicate this study with female masters swimmers. Research has found that gender

impacts athletes' perceptions of coaching behaviours (Kavussanu, Boardley, Jutkiewicz, Vincent, & Ring, 2008; Vargas-Tonsing, Myers, & Feltz, 2004) but research has not looked at whether these differences exist in masters female athletes and their coaches. Also, it would be worthwhile for research to look at different age cohorts within master sport. Current research found a noticeable decline in physical abilities at age 70 so these athletes might face unique challenges regarding their participation in sport (http://www.coach.ca/files/Coaching_Master_Athletes_FINAL_EN.pdf). In addition, it would be worthwhile to examine masters coaching from the coaches' perspective to see how they formulate their notions of effective coaching at the masters athletic level. The current study can also be replicated with other sports including track and field as well as team sports including hockey, baseball, or soccer to investigate the potential differences as the nature of each of these sports is different (i.e., duration of the season, individual vs. team sport).

While the results of the current study provided information regarding the thoughts and perceptions of athletes on coaching behaviours and characteristics, many questions about coaching masters athletes still can be explored. For instance, are masters coaches informed about the most effective ways to coach their athletes? How do masters coaches specialize and develop? This study represents an introductory step in the growing field of coaching in masters athletics. Future studies investigating the influence of coaching on masters athletes or the coaching preferences of masters athletes may use these findings to advance research in this domain.

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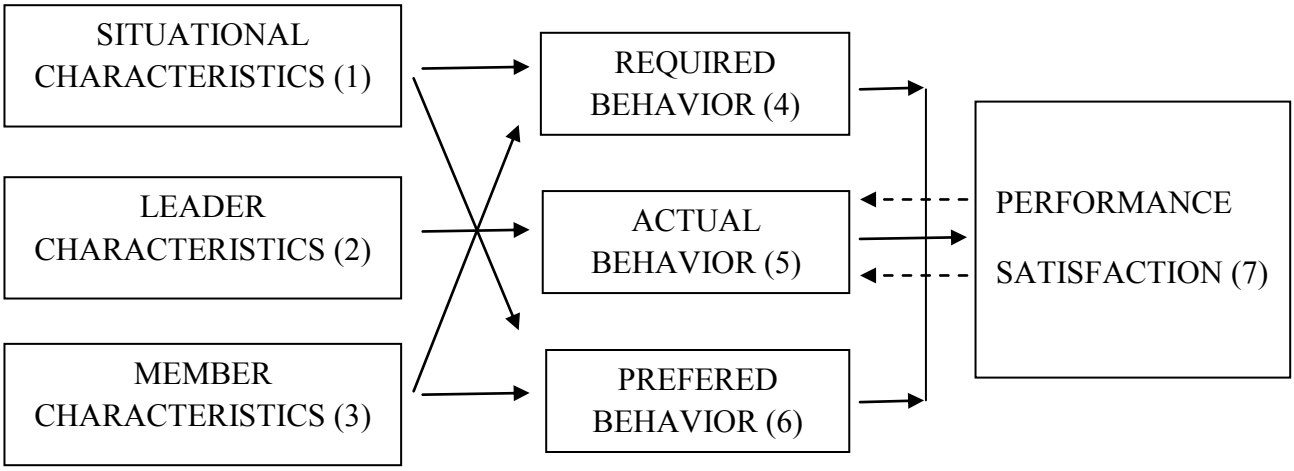
Appendix A

Multidimensional Model of Leadership (MML)

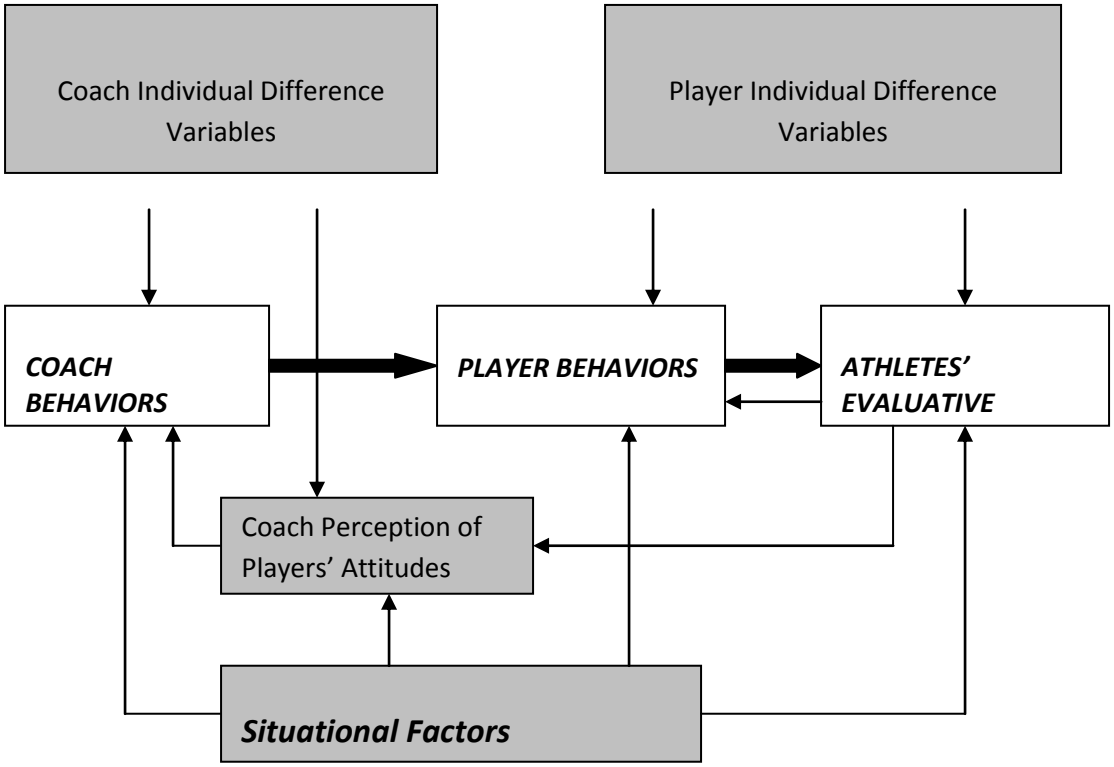


Adapted from:

Chelladurai, P. (1978). *A contingency model of leadership in athletics* (Unpublished doctoral dissertation).University of Waterloo, Waterloo, Canada.

Appendix B

Mediational Model of Leadership



Adapted from:

Smoll, F. L., & Smith, R. E. (1989). Leadership behaviors in sport: A theoretical model and research paradigm. *Journal of Applied Social Psychology, 19*, 1522-1551.

Appendix C

Recruitment Script

Dear _____,

My name is Gillian Ferrari and I am completing a Masters's degree in sport psychology under the supervision of Dr. Gordon A. Bloom who works in the department of Kinesiology and Physical Education at McGill University. We are inviting you to participate in our research study because you were identified as an eligible participant. Through your participation, I hope to examine masters swimmers' perceptions of their coaches behaviours and characteristics.

This study has been reviewed for its adherence to ethical guidelines by a McGill University Research Ethics Board. Any information you provide during this study will remain confidential. If you choose to participate, I will conduct a 1-2 hour interview with you in the location of your choosing. If more information is required, then a follow up telephone conversation will occur.

Should you have any questions concerning this study, please contact myself or my supervisor using the information provided at the bottom of the page. The McGill sport psychology laboratory has a history of producing influential research on coaching and leadership. If you would like to learn more about the research accomplished at the sport psychology lab, then please visit: http://sportpsychology.mcgill.ca/index.html.

Thank you, I look forward to hearing from you shortly.

Sincerely,
Gillian Ferrari

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Appendix D

Informed Consent Form

The purpose of this study is to examine masters swimmers' preferences of coaching behaviours and characteristics. If you participate in this study you will be requested, without payment, to partake in a 60-90 minute interview where you will be asked to recall specific episodes, situations, or events that you experienced participating in masters swimming with your coaches. If more information is necessary, then a follow-up telephone interview may occur. It is common practice that research interviews are audio recorded in order to produce a transcript of the session.

Once the interview is complete, you will obtain a typed transcript, which may be edited at your discretion. Prior to publishing, you will also receive copies of the results and conclusions of the study. The information you provide here will **remain confidential.** All data, audio recordings, and paper copies of questionnaires and consent forms will be securely stored in a password protected computer and locked cabinet for a period of 5 years. The data, audio recordings, and all paper copies will be destroyed 5 years after the study ends. The information disclosed during the interview will remain confidential and will be used for publication purposes and scholarly journals or for presentations at conferences. The researchers will not disclose names or identify the study participants at any time. This study has been reviewed by the McGill Research Ethics Board.

Your participation in this study is voluntary and not mandatory. You are free to refuse to answer any questions or withdraw from participation at any time, for any reason, without penalty or prejudice.

After reading the above statement and having had the directions verbally explained, it is now possible for you to freely consent and voluntarily agree to participate in this research project based on the terms outlined in this consent form. You may refuse to continue participation at any time, without penalty, and all information gathered will remain confidential. Please contact the Research Ethics Officer at 514-398-6831 if you have any questions or concerns regarding your rights and welfare as a participant in this research study. Please sign below if you agree to participate in this study.

_____ _____

Signature Date

I agree to the audio-taping of the interviews with the understanding that these recordings will be used solely for the purpose of transcribing these sessions. Yes□ No□ _____

Initials

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Appendix E

Demographic Questionnaire

1. Name:

2. Age:

3. E-mail:

4. Phone Numbers (home, work, cell).

5. Marital Status? (married, single, divorced, widowed)

6. Do you have children? What are their ages?

_____

_____

7. What is your occupation? Please provide a brief description along with the typical hours you work in a day and a week?

_____

_____

_____

8. What was the highest competitive level you achieved in swimming prior to masters swimming?

_____

_____

9. What is the highest level you have achieved as a masters swimmer?

_____

_____

_____

_____

_____

10. Please list the clubs that you have belonged to since becoming a masters swimmer and your duration at each club?

_____

_____

_____

_____

_____

11. Please list the coaches' you have had since becoming a masters swimmer and indicate whether they were paid for coaching or whether they were volunteers. If you do not know, please indicate that as well.

_____

_____

_____

_____

Appendix F

Semi Structured Interview Guide

Opening Questions

1. Describe your swimming experiences before you became a masters swimmer?
   - Did you compete at a high level in other sports?

2. Briefly describe your progression into masters swimming?
   - Why did you get involved with your current club?

Key Questions

3. Describe what you enjoy about masters swimming?
   - Socialization with peers
   - Health/fitness
   - Physical challenges

4. Describe your goals or aspirations as a masters swimmer?
   - Competitively
   - Socialization/Fun
   - Health/wellness

5. Describe your training regimen?
   - What is the intensity level
   - Frequency
   - Role of coach

6. Describe your competitive season?
   - Frequencies
   - Role of coach

7. Describe the role of the coach for a masters swimmer?
   - Enjoyment
   - Empowerment
   - Teacher
   - Tactician
   - Creating an environment
   - Time commitment

8. Tell me about the barriers to being a masters swimmer?
   - Financial
   - Ageism
   - Lack of recognition that it's a "real" sport?

Concluding Questions

9. Would you like to add anything else related to our interview?

10. Do you have any final comments or questions?

Appendix G

Sport Narrative – A1

A1 has always enjoyed an active lifestyle. Although he stopped competing in swimming at the University level because of increasing course loads, he has always remained active partaking in various triathlons as well as a multitude of sports with his family. A committed husband and father of 3, although A1 might have desired a return to masters swimming earlier, it wasn't until three years ago that his family responsibilities lessened which gave him the time to do so. In addition, A1 also has a very demanding work schedule as the Vice President of a Marketing firm. Despite his other commitments, A1 believes that swimming adds balance to his life and he enjoys pushing himself physically.

Since his return to competitive swimming, A1 has made several mental and physical adjustments, which he credits to his club and coach. With their help, he has realized that focusing on times is not the most effective benchmark to determine his performance. With the help of his coach, he now understands his times will continue to get slower, and he now focuses more on his technique and placing in competitions. In addition, A1 really enjoys his swim club because of the structure it provides to his daily schedule. He likes the planned workouts from his coach, which he finds challenging and stimulating. He credits these factors as helping to retain his competitive motivation in swimming.

A1 has respect for his coach's accomplishments, feedback, and strategies. Furthermore, he appreciates that his coach understands his other commitments in his life, and views their relationship as similar to a friend. This relationship has helped foster trust which has been crucial in the planning and implementation of A1's short term and long term goals. A1 believes that his coach is like a guide to him. "I know the path, but he's there to make sure that I don't step off at the wrong time or if I get caught at a fork in the path and he can help me choose which way I need to go."

A1 believes he will be a lifelong member of his club. Although his more immediate goal is to challenge for the podium at the 2014 FIFA World Masters Swimming Championship in Montreal, he does not wish to pursue that goal to the point that he might "burn out" from swimming. The most important to him aspect to A1 is his desire to remain motivated to swim while enjoying his participation with the club.

Appendix H

Sport Narrative – A2

A2 began competitive sports in his late thirties. A2 started in cycling 12 years ago, which eventually transferred into triathlons. In addition, he also enjoys skiing and cross-training. His desire to improve in the swimming component of triathlon coupled with his wish to stay healthy inspired him to join his first masters swimming club in 2010. The first club he joined did not have the coaching and intensity that he believed would make him a better swimmer, so he switched to his current club in 2012. Though he has no children, A2 has other constraints on his time such as work and family, and acknowledges that the schedule at his current club also played an important role in his decision to switch clubs. He believes his current coach will help him become a better swimmer by devising the most efficient strategy to get him reach his long-term goals.

A2 believes that swimming is the weakest element of his triathlon. He appreciates his coach's technical knowledge in specific swim skills such as bilateral breathing. Although he knows that he needs to adopt, and perfect this skill to improve his swim times, A2 believes that without his coach's persistence and "tough love" he would probably not push himself as hard. A2 discusses his sporting goals with his coach, and seeks his vision and feedback to make those goals possible. They work together to formulate what A2 calls a "realistic" plan to make his goals a reality. He believes that his coach knows what is best for him, and also knows how to push him to achieve those goals. He acknowledges that sometimes he doesn't feel like pushing himself, and credits the verbal motivation and support of his coach in pushing him through the harder training days. He also credits the club environment in pushing him because he enjoys the social element of being part of the group. A2 describes his coach as his friend. Being that they are very close in age, this allows them to talk about similar issues in their lives. They can joke around at each other's expense but at the same time, A2 has a great deal of respect for his coach's technical knowledge.

The environment of his current masters swim club is also an important aspect to A2. He enjoys the intensity of the workouts as well as the way that they are structured. He enjoys long workouts the club provides and believes they provide him with a greater learning opportunity. Although he acknowledges that the schedule can be tough, he is motivated by the changes he has noticed in his health and in his physical appearance. He loves the personal challenge, and his overall goal is to still be completing triathlons well into his seventies.

Appendix I

Sport Narrative – A3

A3 was a competitive tennis player as a child who stopped playing tennis in his thirties (20 years ago) due to increased family obligations. A father of four children, A3 felt it became too time consuming to drive to tennis practices and competitions, especially while averaging 40 hours a week at his job. A3 decided to choose a different sport that would allow him to spend more time with his family. His wife had been a competitive swimmer in her youth, and had decided to join the local swimming club seven years previously. Thus, A3 decided to join his wife at the club, and he started swimming there too. Although he learned how to swim during his childhood, he never belonged to a swimming club since his parents believed it would be too time consuming So, although A3 had some basic skills in swimming when he joined his current club, he never had received any formal technical training from a swim coach. Since joining the club, A3 has seen a noticeable improvement in his swimming as well as his overall health.

A3 loves being physically active. Thus, aside from swimming with his current club he also takes part in triathlon competitions. Although he receives separate coaching for the running and cycling components of a triathlon, A3 believes having an experienced swim coach is crucial to his success not only as a swimmer, but also as a triathlete. At his last triathlon competition A3 ranked in the top 20 in his age group and in the top 20 in his age group in his last swim meet also.

A3 credits his coach with improving the stroke efficiency and his endurance in the pool. Despite the fact that the swim club does not focus solely on triathlon training, A3 feels that his coach is able to cater to his specific training goals through the personal feedback he gets in the pool. In addition, A3's coach helps motivate him through his verbal feedback and enthusiasm. A3 also credits his coach with creating an environment that pushes him to excel, while maintaining camaraderie among the members. The respect that A3 has for his coach's technical knowledge also helped build a trusting relationship. Although the club has several assistant coaches that run workouts during the weekly schedule, A3 prefers when his coach his on deck due to the feedback he provides and the mutual understanding they have of one another.

In terms of long term goals, A3 wants to remain active in swimming well into his seventies. Presently, he is improving his times in swimming and this motivates him to keep pushing himself in the sport. His desire to remain with the club has even motivated him to volunteer as the club manager. A3 hopes that by volunteering with the club, he can help grow participation numbers, the sport, and prolong the life of the club.

Appendix J

Sport Narrative – A4

A4 was a highly competitive and successful swimmer until his teens. At that time, A4 quit swimming because the stress of competition became exhaustive. After he quit swimming, A4 remained fairly inactive until his fifties. After receiving poor results in a cardiac test, A4 decided he needed to make changes in his lifestyle and became highly motivated to improve his fitness. As a husband and father, A4 used these poor results to evaluate his current physical conditioning and decided changes were needed. Although A4 was reluctant to get back into the pool since he had become self-conscious of his body and of his fitness level, A4 put his apprehensions aside in order to improve his health.

A4 credits swimming with saving his life. Without the help of his coach and of other members of the club, A4 does not believe he would have been able to experience such a physical turnaround. When he first joined the club his intent was to lose weight and become healthier. However, the enjoyment and camaraderie of the club, combined with the confidence his coach was able to instill in him, motivated him to get involved in masters competitions. He has now been competing for 14 years, and has ranked as high as 17th at the international level. A4 credits his coach for helping him achieve success at the international level and for reigniting his competitive side. Through his coach's ongoing support, A4 was able to overcome his childhood fear of competitions, something that had deterred him from being involved in sport during his teens. A4 tributes his coach's positivity, ability to bring people together, and the way she cares about the members as being the characteristics that influenced him the most.

Although he believes that swimming and being a member of the club is fundamentally about fun and fitness, he enjoys competing. He believes the competitive component motivates him to train harder and lead a healthy lifestyle. He believes that masters swimming has made him more fit, but also has given him the most self-confidence he has ever had. His experience in masters swimming has also inspired him to get involved in coaching several hours each week in order to give back to the sport.

In the short term, A4 looks forward to competing at the World Championships in Montreal in 2014. Although he is very motivated to remain active and to compete for the club, he is also very excited about continuing his development as a coach for both youth and masters swimmers. He believes his experiences in swimming help make him a better masters coach because he is constantly learning new perspectives and techniques that allow him to cater to the diverse needs of his athletes. Overall, A4 could not imagine his life without swimming. He hopes that through competing and coaching he can endow his love of swimming onto others and that he will remain active in sport for the rest of his life.

Appendix K

Sport Narrative – A5

Although A5 did not start competing in swimming until 16 years of age, he quickly progressed to becoming a top swimmer in Canada in less than a year. By the time he retired from swimming at age 24, A5 competed in two Commonwealth games, two World Championships, and was a member of the 1980 Canadian Olympic team. After taking 4 years off from the sport, A5 initially got back into swimming to stay fit, however, in his forties he decided to join his first masters swim club and get back into competing. A5 is a father of two girls and volunteers 40 hours on various community projects. He credits the club's flexible swim schedule with allowing him to balance swimming, work, and family commitments.

Since turning to competitive masters swimming, A5's focus has changed and he is now less focused on results and more on staying fit and healthy. A5 has several injuries from his competitive swimming days and appreciates that swimming is less of a strain on his joints. He has also noticed that as he got older, his body is more impacted by nutrition, rest and recovery than it once was. Despite the fact that he has a great deal of experience and knowledge in swimming, he still values having a coach on deck. A5 believes the coach plays a very important role in motivating him and creating a club environment that is fun for the members. He also believes that the personality of the coach and his ability to communicate with the members are key elements in a masters coach.

In addition, A5 believes that the structure put in place by the coach, meaning the schedule and swimming expectations, is a fundamental part in athletes' development and involvement. More precisely, A5 likes that his coach has a vision for the season, breaks training into separate components and sets clear goals for each workout. Due to A5's technical knowledge of swimming, he does not think that the biggest challenge of a coach is to give technical feedback. He believes that a masters coach needs to be able to manage the wide variety of skill levels of its members and their different goals. Without this understanding, A5 thinks that the coach is not able to produce a workout that is meaningful to all the members.

Although A5 doesn't have defined goals, he would like to compete at the World Masters Championships in Montreal in 2014. For him, the overarching goal of his involvement is fitness but he values the camaraderie of his club, which is an important factor for him. He is also actively involved on numerous National sporting committees in order to share is experience and knowledge. A5 believes that giving back to sport is really important, since sport has played such a significant role in his life.

Appendix L

Sport Narrative – A6

A6 comes from a family of swimmers. His grandfather grew up in Zimbabwe (formally known as Rhodesia), and was such a successful swimmer that they named a pool after him. A6's dad captained the Zimbabwe National water polo team. Swimming was an important part of his family life and thus it is not surprising that A6 competed at the club level in swimming, although he switched his to water polo in University. Once he graduated from university, A6 stopped playing water polo and started swimming again, although initially his work and family commitments were too demanding. At the time, A6 had a wife and son to take care of and combined with his busy schedule as an air traffic controller, it was hard to find time to swim at the club. When his son got older and A6 had more time for himself, he decided to join his first masters swim club in the 1980s. He then became more committed, swimming several times a week. A6 enjoyed joining a club since he believes the club environment gives him the structure he needs to stay healthy. He also values the social aspect that his involvement provides.

Since taking up swimming again, A6 has been part of three different clubs, joining his current club in 2001. Thus, he has had several different maters coaches during his masters career. A6 credits two masters coaches, with different coaching approaches, as helping him the most. Although he appreciated one coach's ability to foster cohesion among the members, he values his current coach's vision and the way he breaks down the season into training chunks. He enjoys the intensity that his current coach brings to each practice, and, coupled with his careful scheduling of the workout schedule, feels that his current coach helps him be the best-prepared possible for competitions. Overall, A6 believes the main role of any masters coach is organization and vision. He likes open lines of communication between the coach and himself, and he respects his coach's knowledge of swimming and training.

For A6 the competitive element of masters swimming is important. He uses competitions as a measuring stick to gauge his progress, but also to motivate him to train harder and live healthier. A6 competes in swimming competitions with the goal of winning. His best results as a Masters Swimmer include being a National Champion in both 2010 and 2011. A6 credits his peers as being the inspiration behind his long term swimming goals. Competitors well into their 70s, 80s, and sometimes 90s have motivated A6 to want to stay involved in swimming and remain a lifelong competitor in the sport. His other goal in swimming, once his shoulder heals up, is to swim across Lake Ontario.