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Role Transitioning for Athletes Coping with Injury and Occupational Loss

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Role Transitioning For Athletes Coping with Injury and Occupational Loss

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This Scholarly Project Paper, submitted by Steven L. Huft and Izaak P. Schafer, in partial fulfillment of the requirement for the Degree of Master's of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.

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Abstract

Purpose: The purpose of this scholarly project was to develop an occupational therapy based intervention program for persons who are experiencing changes in their role as athletes. These transitions may include return to sport following an injury, unanticipated retirement from sport, or anticipated retirement from sport.

Methods: A thorough literature search and review was conducted using the following research databases: CINAHL, Google Scholar, PubMed, and PsycINFO. Evidence from the occupational therapy, physical therapy, athletic training and psychology professions was reviewed regarding the prevalence of injury in varying sports contexts, athletes' ability to transition during role changes or interruption, injury rehabilitation, career termination and programs available to address the aforementioned factors. Research findings have indicated a need for programming that targets promotion of an athletes' healthy adjustment to life within and out of athletics. For example, following an injury, athletes may be physically ready to return to competitive sports but not mentally/psychologically prepared. This lack of readiness has also been documented in those transitioning out of sports. There is a lack of published programming available to address athletes' psychological and physical needs for role transitioning, transitioning out of sport, transitioning to a different level of sport, injury intervention, and prevention of unhealthy lifestyles that may accompany retirement from sport.

Results: Based on available evidence and theoretical literature, a program was created to address athletes' psychological and physical needs during periods of transition and injury. The Occupational Adaptation model and Self-Determination Theory were utilized as the foundation for the development of this program. The product includes a number of assessments, which are the Athletic Identity Measurement Scale (AIMS), Canadian Occupational Performance Measure (COPM), Brief COPE, Life Roles Inventory, and Disabilities of the Arm, Shoulder, and Hand (DASH). These assessments will be used to measure and understand the athlete's perspective of readiness to return back to sport or transition out of sport, ability to cope, and self-identification of life roles. The goal of this program is to ensure the athletes' transition is a healthy process, that the athlete is physically and mentally ready to return to his or her sport, or to facilitate a healthy transition out of competitive athletics. The final product of this project is a program, in the form of a manual, that occupational therapists can use during the rehabilitation process to guide the physical and psychological rehabilitation of the athlete. Interventions may include the athlete's development of coping skills, promotion of healthy social supports, setting realistic expectations and goals, maintenance of open lines of communication between coaches, family, rehabilitation team members and teammates, and recognition of components of identity outside of sport.

Conclusion: This program is intended for implementation in sports medicine facilities, outpatient clinics, hospitals, high school, collegiate, and professional athletic teams. The program is anticipated to promote healthy transition both physically and psychologically following injury, career termination from sports, and developing healthy lifestyle habits after participation in competitive athletics.

Chapter I

Introduction

In the United States, there are many individuals participating in different athletic competitions. There are several levels of athletic competition ranging from recreational to professional. Some individuals who engage in athletic competition play sports at the collegiate or professional level. Participation in sport at any level holds a risk for injury. In 2006 there were over 9 million emergency department visits that were the result of injuries among football, baseball and wrestling (National Safety Council, 2008). Individuals who experience injuries at the collegiate or professional levels may experience deficits in their occupations outside of sport. Many athletes who sustain injury find themselves experiencing psychological problems such as withdrawal from friends and occupations. Others may feel depressed or lose confidence in their ability to play their sport the way they did prior to being injury.

After researching high school, collegiate, and professional athletics, it is evident that there is no evidence supporting or showing the role of occupational therapy in the rehabilitation process. This program was designed to guide occupational therapists in the treatment of athletes going through the transition process and the psychological stressors that may occur following and injury. Furthermore this program was developed to also advocate the importance of occupational therapists involvement in the treatment of the psychological injuries as well as the physical injuries an athlete may face. Due to the occupational therapy scope of practice, occupational therapists are skillfully trained to provide positive outcomes in athletic rehabilitation. Following a thorough literature review, a manual was developed for occupational therapy practitioners to be used when

treating athletes. The manual consists of interventions for areas of occupations that are affected when an athlete experiences an injury.

There are two theories that guide the interventions throughout the manual, which include Occupational Adaptation (OA) (Schkade & Schultz, 1992), and Self-Determination Theory (SDT) (Podlog & Eklund, 2010). These theories were chosen because they can be adapted and modified to meet the unique needs of the client, or in this situation, the athlete. The manual provides examples of interventions that will assist an occupational therapist when treating athletes. The interventions can also be modified to better suit the affected areas of occupation as the therapist deems necessary. The manual has been divided into three sections: *Returning to Sport, Anticipated Termination from Sport,* and *Unanticipated Termination from Sport*. In each section there are different interventions provided for the audience to follow. The interventions in each section are divided into three responses based on the OA theory and include the primitive response, transitional response, and mature response. There are different interventions for each type of response. The three responses demonstrate the progression of the intervention process and appreciate the changes or adaptations that the athletes acquire throughout therapy. SDT was chosen because it includes the motivating factor behind the client's engagement in his or her sport. Understanding if the client is motivated for intrinsic reasons or if he or she is motivated by variables on the extrinsic continuum, will allow the client and/or therapist to better understand and deal with possible stressors. When individuals are motivated intrinsically, it is the purest form or motivation, engaging in the sport out of sheer enjoyment, not guilt, anxiety, financial support, or acceptance (Podlog & Eklund, 2010). We found this to be an important aspect when treating the client holistically and

felt including SDT with OA would enhance the program further. A synopsis of the literature review, on which the program was based, can be found in chapter II.

Chapter II

Review of Literature

Chapter II is comprised of a review of available literature regarding athletic injuries statistics, the effects an injury may have on an athlete physically and psychologically, issues athletes may face transitioning out of sport or back into sport, the role occupational therapy can play in the transition process, and a brief description of the theories and models used. There is a lack of literature available describing the transition process athlete's face when faced with injury, retirement, and de-selection, and athletes make up a large population in the United States.

Statistics

Across the United States, millions of individuals of all ages engage in many different types of athletic competition. Many of which participate as a hobby with friends and family, other participate in organized sporting competitions in their communities, state, or across the United States. There are many different levels of competition and many young athletes strive to one day reach the highest level competition. Only a small percent of young athletes who start out playing may ever realize their dreams. Many obstacles such as de-selection, and injury stand in the way of these young.

Population stats.

According to National Collegiate Athletic Association (NCAA), in 2009-2010

there were 430,301 student athletes competed in 3 divisions at more than 1,000 colleges and universities within the NCAA (National Collegiate Athletic Association, 2010). In 2009-2010, the Center for Injury and Research Policy estimated 7.4 million high school students participated in sports (Comstock, Collins & McIlvain, 2011). According to the Bureau of Labor and Statistics, more than 16,500 professional athletes competed in the United States in 2008 (United States Department of Labor and Statistic, 2009). The aforementioned statistics do not include student athletes from junior colleges or the National Association of Intercollegiate Athletics (NAIA) in the United States. It is not surprising, given the number of people participating in athletic occupations in the U.S., that many experience injuries.

Injury stats.

An injury has been defined by Green and Weinberg (2001) as a traumatic event in which emotional and psychological reactions are produced. These reactions are interpreted differently by each athlete and affect the athlete individually. According to the Center for Injury Research and Policy (Comstock, Collins & McIlvain, 2011), in 2010-2011 there were 1,195,815 sport related injuries at the high school level alone. In the U.S. in 2006, there were more than half a million emergency department visits due to basketball injuries (National Safety Council, 2008). Other injuries that resulted in emergency department visits included 8,200,000 football injuries, 163, 834 baseball injuries, and 36,943 wrestling injuries (National Safety Council, 2008). These numbers are likely to increase due to increased interest and participation in health, wellness, and physical fitness by people in the U.S (Green & Weinberg, 2001). In addition to the physical symptoms that an athlete may experience with an injury, he or she may also

experience psychological repercussions.

Psychological Injury

Injuries that interrupt or end one's participation in sport may have psychological implications for the athlete. An injury can result in psychological reactions such as anxiety, depression, fear, and loss of self-esteem (Green & Weinberg, 2001). Most injured athletes return to sport following a variety of rehabilitation processes that focused on the physical aspect of the injury, but often neglect the psychological factors that may be occurring. Athletes returning to sport, as well as athletes not returning to sport, may experience psychological factors that could possible hinder their engagement in athletic or non-athletic occupations. The athlete returning to sport could have confidence issues related to performance whereas the athlete not returning to sport may feel unsure about what to do with his or time in the absence of athletics. Ballilie and Danish (1992) found that following an injury, many athletes expressed a sense of loss over their present lack of opportunity to participate further in college sports. Those athletes indicated a sense of loss of identity, friends or teammates, or a regret missed opportunities.

Loss of identity.

Another type of loss that an injured athlete may experience is a loss of a sense of identity. Individuals who engaged in sport defined themselves as, at least in part, as athletes (Tasiemski & Brewer, 2011). The term athletic identity comes from the extent to which one identifies with the athlete role. As described by Ballie and Danish (1992), in the U.S., many people are exposed to athletics at a young age and may associate being an athlete with fame or glory. Young children view athletes as heroes and role models, from the small town sports hero to the most famous athletes playing professional sports. The

label of athlete is engrained into the identity of many young children from the first time they ever play their first competitive sport. It is this label that children associate with at a young age and this becomes deeply rooted into their identity (Ballie & Danish, 1992).

Brewer, Van Raalte and Linder (1993) found that people who show greater participation in sports have higher athletic identity than those who do not. The individuals who experience events that threaten their athletic roles may affect their personal identities negatively (Brewer, Van Raalte, & Linder, 1993). If an individual is focused on his role as an athlete and becomes injured, his identity may be threatened. This may occur because in a sports-oriented life the injury can interrupt focus and lead to emotional and psychological reactions that are negative such as loss of self-esteem, fear, depression, and anxiety (Green & Weinberg, 2001). Life events outside of sport can also influence an athlete's reaction to an injury (Wises-Bjornstal et al., 1998). Brewer and Petitpas (2005) estimated 5-24% of athletes who experienced an injury had a clinically significant level of distress due to the injury, which ultimately affected other aspects of an athlete's life. Due to the distress caused by the injury, if an athlete's psychological issues are not addressed, they will negatively affect the physical rehabilitation process.

Despite the importance of addressing the psychological issues an injured athlete may experience, many sports medicine facilities do not have sports psychologist on staff to work with athletes. Subsequently, the athlete must be referred to other clinics in order to receive the appropriate treatment required (Brewer & Petitpas, 2005). Evidence of the frequency in which referrals are completed was not found in available literature. The absence of appropriate psychological intervention for injured athletes may contribute to delayed physical recovery or healthy transitions to return to sport or retire from sport.

Addressing psychological issues.

Brewer and Petitpas (2005) identified a four-phase outline that medical professionals can utilize for addressing psychological issues while working with athletes recovering from a sports injury. The phases include rapport building, education, skill development and practice and evaluations (2005). In the rapport phase, it is important to develop a trusting relationship based on mutual respect and confidence. This phase allows the medical professional to understand and identify with the athlete. An injury causes overwhelming stress and uncertainty, which can lead to the athlete acting out or taking his frustrations out on people around him (2005). These behaviors can ultimately affect the athlete's rehabilitation progress (2005). The medical professional needs to build rapport in order to counteract these stressors and aid the athletes' rehabilitation process. In the education phase, the medical professional should ensure the athlete understands his diagnosis and the limitations of his injury as well as his prognosis. This allows the athlete to set realistic goals and may also prepare the athlete for the possibility of not returning to sport. The skill development phase consists of introducing coping strategies to the athlete and ensuring the athlete knows how and when to use those (2005). Finally, the practice and evaluation phase is the culmination of what the athlete has learned in the skill development phase applied to his rehabilitation sessions as well as other stress causing events (Brewer & Petitpas 2005).

Occupational Therapy

Occupational therapy encompasses a broad scope of practice and occurs in many different contexts. Occupational therapy was founded by many different professionals with many different backgrounds including psychiatry, nursing, music, and

architecture all with the same goal in mind, to use every day meaningful occupations as a therapeutic tool.

Occupational therapy defined.

Occupational therapy is an allied health profession whose aim is to restore health and wellness with consideration of occupational engagement. The American Occupational Therapy Association (AOTA) defined occupational therapy as:

> The therapeutic use of occupations, including everyday life activities with individuals, groups, populations, or organizations to support participation, performance, and function in roles and situations in home, school, workplace, community, and other settings. Occupational therapy services are provided for habilitation, rehabilitation, and the promotion of health and wellness to those who have or are at risk for developing an illness, injury, disease, disorder, condition, impairment, disability, activity limitation, or participation restriction. Occupational therapy addresses the physical, cognitive, psychosocial, sensory-perceptual, and other aspects of performance in a variety of contexts and environments to support engagement in occupations that affect physical and mental health, well-being, and quality of life (2011 ¶ 1).

Occupation is defined as a meaningful activity of everyday life (AOTA, 2008). Occupational therapists view meaningful activities in which people engage in categories known as *areas of occupation* (AOTA, 2008). Areas of occupation are *Activities of Daily Living* (ADL), *Instrumental Activities of Daily living* (IADL), *Rest and Sleep*, *Education*, *Work*, *Play*, *Leisure*, and *Social participation*. Engagement in sports may be classified as work, leisure, play, or social occupations (AOTA, 2008). In the 2008 AOTA

Occupational Therapy Practice Framework: Domain and Process 2nd edition, work has been defined as activities needed for engagement of volunteer or employment an activity, which is measured by employment interests, pursuits, seeking, acquisition, and job performance. Leisure is defined as an activity where engagement comes from being intrinsically motivated, and being nonobligatory, which is measured by leisure exploration and participation (AOTA, 2008). Social participation is defined as patterns of organized behavior and expected of an individual within a social system. Social participation is measured by engaging in activities within communities, families, and friends or peers (AOTA, 2008). Play is defined as any organized or spontaneous activity that provides entertainment and enjoyment. Play is measured by play participation and exploration (AOTA, 2008).

Occupational therapy in sport.

There are approximately 800 athletic trainers who work within professional sport leagues and teams including the National Basketball Association (NBA), National Football League (NFL), Major League Baseball (MLB), National Hockey League (NHL), professional tennis, Professional Golfer's Association (PGA), NASCAR, and rodeo (National Athletic Trainers Association [NATA], 2012). Physical therapists (PT) work within the sports medicine realm, alongside team medical doctors. Strength and conditioning coaches are considered to be a part of teams coaching staffs. However, there is no evidence of collegiate teams, high school teams, or professional sport teams using occupational therapists.

Occupational therapy provides services that address psychological and physical deficits. Aforementioned literary evidence has shown that athletes may experience mental

and physical difficulties that can prohibit the ability to engage in sport after the event of an injury, particularly when it is unlikely that they will recover their pre-injury physical ability. Podlog and Eklund (2006) found that athletes who are physically ready to return to sports may not be psychologically prepared to return to competition following a period of significant injury. The return to sports from injury transition has been shown to be difficult for the athlete (Podlog & Eklund, 2006).

The transition process of athletes has been overlooked in multiple professions, including occupational therapy, and limited research is available that supports interventions that may aid those athletes in need of support during his or her transition following an injury or career termination. There is little research available that highlights the roles occupational therapists assume in the care and treatment of athletes going through the rehabilitation process and role transition (Ballilie & Danish, 1992). Despite this lack of evidence regarding particular interventions, occupational therapists are keenly suited to address the needs of injured athletes or those transitioning to a non-athletic role.

Occupational therapy's role.

Despite the apparent congruence between problems an injured athlete may experience and occupational therapists' skills and knowledge in providing services to address physical and psychological deficits that may impede a return to occupation, a severe dearth of literature exists regarding an occupational therapist's role in working with injured athletes. In fact, there is an overall sparseness of programming and literature to address the athletes' coping with the psychological stressors, occupational loss, and role transitioning that may follow a sports injury. There is a need for program development and research to understand and aid in athletes' healthy role transition; role

transition that can assist injured athletes in returning to engagement in sports or (for athletes who are unable to return to their sports) adapt to life without engagement in sports. Green and Weinberg (2001) stated to better treat and understand the injured athletes, professionals must study the personal and situational factors that could possibly influence the individual post injury. An occupational therapist would identify these factors as *client factors* (AOTA, 2008). Client factors are defined in the 2008 AOTA *Occupational Therapy Practice Framework: Domain and Process 2nd edition* as "specific abilities, characteristics, or beliefs that reside within the client and may affect performance in the area of occupation" (AOTA, 2008, p. 630). According to the 2008 AOTA *Occupational Therapy Practice Framework: Domain and Process 2nd edition*, "Client factors include 1) values, beliefs and spirituality; 2) body functions; and 3) body structures" [AOTA, 2008]. Occupational therapy has a strong background in these areas of client factors (which are affected when an athlete experiences injury) and through the creation of a program for injured athletes, it will become evident that occupational therapists can play a significant role in the rehabilitation process for athletes experiencing a role transition and in need of services to return to healthy engagement in their life occupations.

Theoretical Foundation

Occupational Therapy is guided by theoretical foundation it is what directs the development of programs and interventions. Occupational Therapy uses a wide variety of theories, models, and frame of references that drives the practice in many different settings and environments. Typically individuals including athletes who are recovery from a physical injury will be treated using the Biomechanical Frame of reference in

order to address the physical limitations the injury may have caused. However in this program the focus is not the physical injury but the psychological injury and in order to address this aspect Occupational Adaptation and the Self-Determination Theory will be utilized in order to better address the unique needs of the clients.

Biomechanical frame of reference.

Traditionally, most therapists use the biomechanical frame of reference (FOR) when treating clients with physical disabilities. The Biomechanical FOR uses principals of physics to posture, and human movement correlating with the forces of gravity (Cole & Tufano, 2008). When occupational therapists use the Biomechanical FOR, they address range of motion (ROM), strength, endurance, principals of movement, and the effects of pain (Cole & Tufano, 2008). These areas are addressed within the client's context of occupation. Occupational therapy intervention focuses on functional skills and increasing occupational performance. While doing so, Occupational therapists use intervention techniques such as restore or establish a client's functional skills, and modify a client's environment or task to increase independence levels. Traditionally, the biomechanical FOR localizes treatment on physical disabilities. However, Occupational therapists consider both mental and physical features when addressing a client's occupational performance. Occupational therapists refer to the Biomechanical FOR when a client's deficits are noted in ROM, strength and endurance these are referred to as body functions in the Occupational Therapy Practice Framework (Cole & Tufano, 2008). However, using the Biomechanical FOR can limit outcomes if the therapist does not utilize occupation-based interventions that the client finds meaningful; occasionally the client may not meet desired levels of occupational performance in a particular area of

occupation.

To illustrate the importance of using more than just the Biomechanical FOR in therapy, Jack and Estes (2010) wrote a case study titled *Documenting Progress: Hand Therapy Treatment Shift from Biomechanical to Occupational Adaptation*. The case study focused on the treatment of a woman with lupus-related arthritis who was seen in an orthopedic outpatient clinic for a total of 15 weeks. The occupational therapist used the Biomechanical FOR during the first five weeks after surgery that emphasized gaining and maintaining active range of motion (AROM) and passive range of motion (PROM), reducing edema, promote wound healing, and scar management (Jack & Estes 2010). After five weeks post-surgery the client found that the healing scar tissue was limiting mobility at the incision sites at the wrist, and the client was unable to make a fist, which prevented her from meeting her short term goals. The therapist decided to use functional electrical stimulation and aggress scar tissue massage to reduce adhesions. The therapist provided a home exercise program and splinting for another five weeks. After 10 weeks of treatment, minimal progress was documented. The client was unable to hold objects in the palm of her hand and could not use a knife to cut food or hold a mug with her left hand. The therapist chose to shift from the biomechanical approach to an approach that is more client-centered. The therapists selected the Occupational Adaptation (OA) model to incorporate client engagement in meaningful occupations and occupation-based approach (Cole & Tufano, 2008).

Occupational adaptation.

For the purposes of this scholarly project, our goal was to determine and outline the occupational therapist's role in the rehabilitation process utilizing the (OA) model.

Thus, research findings reviewed in this literature review will be viewed through the lens of an occupational therapist and, more specifically, with consideration for the assumptions of the OA Model. The focus of the OA Model is the interaction between the individual and his or her environment (Cole & Tufano, 2008). The model identifies four areas of emphasis: 1) occupations, 2) adaptive capacity, 3) relative mastery, and 4) occupational adaptation process (Cole & Tufano, 2008). The *occupation* includes the activity, the meaning of the activity to the individual, and the process and a product in which the activity is accomplished. In this scholarly project, the occupation is the sport in which the individual participates in along with the intrinsic and extrinsic motivators and activity demands (Cole & Tufano, 2008). The individual's ability to recognize the need for change in order to achieve the desired outcome is known as *adaptive capacity* (Cole & Tufano, 2008). An example of adaptive capacity is the athlete recognizing, after an injury, that he or she is not capable of meeting the activity demands prior to the injury; therefore, the athlete recognizes he or she must modify the way a task is accomplished in order to recover and return back to sport. *Relative mastery* is the desired outcome, which is determined by the individual's perceived measure of success in his ability to accomplish a goal in his occupational environment (Cole & Tufano, 2008). This is accomplished by setting and achieving goals during the rehabilitation process. *Occupational adaptation* is a complex series of steps that one faces when he or she is challenged in his or her occupational environment (Cole & Tufano, 2008). The rehabilitation process from start to finish encompasses the occupational adaptation process (Cole & Tufano, 2008).

In a case report conducted by Jack and Estes (2010), therapists used the Canadian Occupational Performance Measure (COPM) in order to encompass the rehabilitation process. The COPM was used to identify the client's roles and occupational performance levels, and the client's perceptions of her performance. The COPM was used to make this shift in approaches to treatment. The OA approach allowed the therapist to comprehensively understand the client's occupational performance and the mastery level of her activities that stemmed from her environment. In order to be successful, the client wanted to develop mastery of her desired occupations in the environments she engages in. Some of the Biomechanical FOR was followed after the COPM was administered, but the emphasis shifted and facilitated the client's occupational performance. After five weeks of an OA-driven approach to treatment the COPM was administered a second time to determine, the client's overall perception of her functional tasks. She identified an increase in both perception and satisfaction upon reassessment. The client's perception increased from a 3.2 to a 5 out 10, and her satisfaction level increased from a 2.2 to a 4.8 out of 10. The results of this article show that occupational therapy assessments and theories should be implemented to help client's meet satisfaction levels of his or her occupational performance, which is important when working with athletes.

Jackson and Schkade (2001), found that clients receiving therapy (based on the OA model) for hip injuries reported having significantly higher satisfaction with their treatment and results than individuals being treated with the biomechanical-rehabilitation (B/R) model. It is believed that the OA group reported higher satisfaction because they were allowed the opportunity to pick the exercises on a day-to-day basis (2001). This allowed the clients to engage in meaningful activities giving them a sense of power

and/or independence that could have been lost since their injury. Jackson and Schakade (2001) also noted the OA group had a shorter stay being discharged 3.45 days sooner than the B/R group.

Self-Determination theory.

The Self-Determination Theory (SDT) also provides a useful foundation from which to better understand the different types of motivation athletes may face in the rehabilitation process. SDT looks at motivation on a self-determination continuum that ranges from amotivation, (being the least motivating) to intrinsic motivation (being the highest level of motivation coming from within) (Podlog & Eklund, 2010). Extrinsic motivation span the continuum which includes: 1) amotivation, 2) external regulation, 3) introjected regulation, 4) identified regulation and 5) integrated regulation (2010). Where an individual functions on this continuum is called his or her motivation state. *Amotivation* is characterized by being the least motivating, lacking intent to act (2010). *External regulation* describes behavior that is performed to obtain reward such as money or to avoid negative reactions such as criticism (2010). *Introjected regulation* is behavior that is characterized as being done to avoid guilt and anxiety or to attain an ego boost such as pride (2010). *Identified regulation* is exhibited when an individual performs the act out of personal valuation or endorsement. Examples of these would be returning back in order compete in an important competition or to meet selection criteria (2010). *Integrated regulation* occurs when identified regulated behavior occurs in line with one's own values and needs. Example would be returning to competition because he or she loves to demonstrate his or her athletic ability. (2010). *Identified* and *integrated regulations* are both considered extrinsic because they are being performed for an

outcome other than personal enjoyment (2010). Finally, intrinsic motivated behavior is characterized as being performed out of sheer enjoyment for the act itself (2010). According to Podlog and Eklund (2010), an individuals' motivational state is a direct reflection of how his or her innate psychological needs, competence, autonomy, and relatedness are being satisfied. Podlog and Eklund (2010) characterized *competence* as a sense of proficiency or effectiveness in the things one engages in (2010). Autonomy is characterized by an internal locus of control or the extent that an individual believes he or she has control over events that affect them (2010). The final innate psychological need relatedness refers to the sense of connectedness one feels with others (2010). Podlog and Eklund (2010) described an environment that is supportive of these needs enhances psychological function and intrinsic motivation. However environments that thwart these psychological needs hinder psychological function and intrinsic needs. For example, a coach that includes an injured athlete in team activities and promoting competence, autonomy and relatedness will facilitate a motivational state higher on the self-determination continuum. Conversely, the environment that does not promote competence, autonomy and relatedness such as the coach that threatens athletes with losing his or her spot on the team or pressuring him/her into returning back to competition too soon will hinder their motivational state causing the athlete to be lower on the self-determination continuum. Podlog and Eklund (2010) found that when this occurs the individuals' well-being and performance outcomes are negatively affected due to the fact they are no longer intrinsically motivated to engage in sport. His or her motivational state shifts more to the extrinsic motivation span of the self-determination continuum. For this reason it is important for coaches, therapists, doctors and athletes to

work together to establish open lines of communication and avoid pressuring the athlete in such a way that appropriate recovery time will be impeded (Podlog & Eklund 2010).

Transitions

There are several opportunities for transition throughout an athlete's career. According to Pearson and Petitpas (1990), a transition is defined as an event or nonevent that results in a change of assumptions of oneself and the world around him or her that requires a change in one's behavior. According to Stambulova, Alfermann, Statler and Cote (2009), career transitions are both normative and non-normative turning phases through an athlete's career. Normative athletic transitions are predictable and can include the transition from high school to collegiate sports, from amateur to professional sports, and beginning sport specialization. Athletes who engage in normative transitions have the opportunity to prepare for coping with these transitions in advance. Non-normative transitions such as injury, coaching changes, changing teams, athletic career termination, or sport partners are difficult to cope with due to the low predictability of these transitions (Stambulova, Alfermann, Statler, & Cote, 2009). An individual experiencing an unexpected event like an injury or retiring from sport can cause a change in his typical behavioral patterns and everyday routine. This change can lead to occupational loss of an individual's perceived identity (Ballie & Danish, 1992). This change in behavior and the perceived occupational loss can cause the athlete to have an increased amount of distress make the transition process more difficult.

Pearson and Petitpas (1990) found three main themes that influenced athletes' role transition upon retirement from sport. These three factors included the individual, the individual's perception of the transition and the characteristic of the setting. The

individuals' health, past experience and social status all were factors that impacted the athletes' transition out of sport. The way in which the athlete perceived the transition whether it was anticipated or not, directly contributed to the effect the transition had on the athlete. Finally, the characteristic of the setting, which included the support system, was determined to also have an effect of the athlete's perception of the transition. Athletes with little support had a perceived the transition more difficult and ones with a strong support system perceived the transition less difficult. (Pearson & Petitpas, 1990). This information suggests that athletes should prepare for their athletic career retirement in advance. Pearson and Petitpas (1990) found that when athletes had supports in place prior to their retirement, they experienced healthier transition. However, they also predicted that individuals who based their identity on their athletic performance and did not anticipate the role transition would have an increased difficulty transitioning out of sport (Pearson & Petitpas 1990). Lavallee, Grove and Gordon (1997) identified common reasons for athletes to transition out of sport: retirement, age, injury, de-selection from the team, and voluntary career termination. Twenty-six percent of athletes had not planned or thought about life after retirement, and 39% of athletes did not have a plan for life after retirement (Erpic, Wylleman, & Zupancic 2004). It is likely that the athlete who does not anticipate interruption or retirement from sport will experience psychological distressing following this difficult transition. Aforementioned it is important that health professionals address both the physical and emotional difficulties that an athlete may be experiencing following an interruption from sport or retirement from sport.

An injured athlete may encounter several experiences that impact his or her psychological health and force him or her to attempt to adapt to the changing

environmental conditions and demands. According to OA, an athlete's adaptive capacity is affected by impairments, emotional or physical disability, or role transitions in his or her life. As demands such as returning to sport or the rehabilitation process increase within the person and environment, an athlete can be overwhelmed due to the distress caused by the injury; this increases the demand of the athlete's adaptation process (Cole & Tufano, 2008). An injured athlete may experience psychological difficulties as the result of the stresses caused by overcoming fear of injury, returning to sport, transitioning to a different role within the team, not returning to sport and coping with athletic identity loss.

Returning to sport.

It is important to address both the psychological and physical issues an injured athlete may encounter during the rehabilitation process as he or she works to return to sport (Brewer & Petitpas, 2005). An injury can be a source of stress causing an athlete to set unrealistic goals and push him or herself too hard and possibly cause further injury. In addition to overexertion,, Brewer and Petitpas (2005) identified other "warning signs of poor adjustment" (p. 95) to injury including the athlete becoming dependent on the medical professional, bragging about sport and non-sport accomplishments, denying the impact that the injury has on him, displaying guilt or negative emotions (anger, anxiety and depression), and withdrawing from social interactions. Through data collection, Podlog and Eklund (2007a), identified that coaches' main concern during the rehabilitation and transition process is social support for their athletes. Green and Weinberg (2001) stated that an athletic injury creates a situation of emotional disturbance whereas having social supports could influence emotional reaction to the injury. Podlog

and Eklund (2007a), divided social support into three subcategories: type, timing and amount. The need for different types of support was identified such as informational, emotional and practical at different times in the recovery period. It is important to give the athletes more emotional support at the beginning of rehabilitation when athletes are still trying to grasp the severity of their injury and then reduce the amount of support as the rehabilitation process progresses in order to allow them to learn how to cope with their injury (Podlog & Eklund, 2007a).

Fear of re-injury.

One of the most significant contributors an athlete's stress after injury is the fear of re-injury. This can impact the rehabilitation process and the extent to which the athlete returns to sport. Podlog and Eklund (2007b) found that one way to overcome fear of re-injury is to set goals and establish criteria within those goals as a way for an injured athlete to accurately determine when he or she is ready to return to sport following an injury. Meeting goals or particular milestones provides the athlete with a sense of accomplishment which contributes to increasing confidence levels and alleviating anxiety or fears of returning to full competition (Podlog & Eklund, 2007b). To enhance confidence, occupational therapists could apply OA by measuring the athlete's occupational performance by his or her ability to adapt to the changes that occur with injury. This could be done by adapting to a different role on a team sport, working on preventative techniques, or adapting movements that caused the injury.

Transitioning to a different team role.

An athletic injury may result in the need to sacrifice a previous role within the team; some athletes may struggle with this transition. Other athletes who are preparing

themselves to transition to a higher level of competition might be faced with the same situation, needing to take on a new role to remain part of the team. There are many instances when a high school athlete is recruited to play at a college level, or when a collegiate athlete transitions to professional level and is required to take on new roles that he or she has never done before. The new experiences that accompany this transition can have both helpful and hurtful influences on the athlete's ability to successfully adapt to the new environment.

According to OA, an individual's response to challenges within a lifetime is known as the internal adaptation process (Cole & Tufano, 2008). Depending on the level of sport, the athlete's occupational performance could also be affected. Athletes are consistently challenged by opponents, practices, teammates, coaches, and physical activity. In a period of transition, the athlete experiences new challenges such as unfamiliar forms of competition, psychological demands, psychosocial demands, and in academic/vocational involvement may result in a high-stressed life (Podlog, Dimmock & Miller 2011; Stambulova, Alfermann, Statler, & Cote, 2009). Experiencing an injury (in addition to different coaches, coaching styles, and teammate roles) may make it difficult for the athlete to successfully adapt. These transitions naturally require an aspect of change to *press toward mastery* (Cole & Tufano, 2008).

Occupational therapists can assist during these transitions because according to OA, individuals' are more likely to have positive outcomes in life roles if they are able to adapt to changes in a healthy way (Cole & Tufano, 2008).

Not returning to sport.

There are instances when an athlete may be forced to retire from his or her sport

as a result of an injury. The transition from competition to no participation in sport can have a detrimental psychological effect on the athlete. Erpic, Wylleman and Zupanic (2004) found that athletes who had to terminate their career from sports involuntarily experienced more severe and frequent psychological difficulties. These difficulties include feelings such as lack of self-confidence, low self-respect and self-esteem, and feeling incompetent in other tasks outside of sports. Athletes who were forced to retire from sport also had difficulties in organizing their post-sport life and viewed their life more negatively after sport (Erpic, Wylleman, & Zupancic, 2004). In one study, Tasiemski and Brewer (2011) found that athletes who were unable to participate in their favorite sport after sustaining a spinal cord injury (SCI) injury reported having lower levels of life satisfaction, and higher levels of depression and anxiety.

There are both athletic and non-athletic reasons that athletes do not return to sport. For example, an athlete may not return to sport due to retirement, age, de-selection from the team, voluntary career termination or severe injuries such as SCI, head injuries, and knee, hip, ankle, shoulder and hand injuries (Erpic, Wylleman, & Zupancic, 2004).

Preparing for transition.

Evidence has confirmed that normative athletic career transitions can be promoted proactively by increasing the athletes' awareness of upcoming demands and changes. Preparing athletes for normative athletic career transitions prevent athletes' crises. Research also showed that retirement planning, voluntary termination, multiple personal identity, availability of social support, and active coping strategies facilitate athletes' adaptation to post athletic career (Stambulova, Alfermann, Statler, & Cote, 2009). Research has shown that if an athlete perceived the terms of retirement were in his or her

control and voluntarily retired, the transition is viewed as easier by the athlete (Lavallee, Grove & Gordon, 1997). However, if the athlete involuntarily retires and perceives the transition as out of his or her control, the athlete is at risk of experiencing a considerable amount of emotional distress and anxiety (Lavallee, Grove & Gordon, 1997).

In a study conducted by Tasiemski and Brewer (2011), athletes who were unable to fully engage in their favorite sport as they did prior to a significant injury developed a resistance to engage in that sport to protect their psychological state from disappointment. Tasiemski and Brewer (2011) found that subjects participated in sport at a greater extent before sustaining a SCI than after SCI. They also found that a person's participation in sports after injury is important to the athlete's athletic identity more so than before the injury occurred. There was an increase in an individual's athletic identity if he or she became more involved in sport after SCI occurred (2011). As described previously, the label of athlete becomes deeply rooted into an athlete's identity. It is believed that this becomes a major source of difficulty upon retirement from sport. The loss of an athlete's occupation can also mean the loss of his or her identity and status; this can result in significant feelings of loss, depression, and confusion (Ballie & Danish, 1992).

As previously mentioned, loss of sport can result in feelings of loss of athletic and personal identity (Ballie & Danish, 1992). An athletes' athletic identity is affected by injury, more so if the injury does not allow them to perform at the level they once were capable of. To address an athlete's transition out of sports, the athlete's adaptive capacity must be considered by addressing his or her adaptive response. The adaptive response is divided into three categories: primitive, transitional, and mature (Cole & Tufano, 2008). The primitive category consists of being hyperstable, immobile, and appearing "stuck"

(Cole & Tufano, 2008). This is a transition period in which an occupational therapist would have to help the athlete recognize his or her abilities and consider modifying sport activities to meet former roles an athlete previously had prior to injury. The transitional category consists of behaviors that are hypermobility, lacking clear direction, and highly variable and random (Cole & Tufano, 2008). With knowledgeable consideration to the transitional categories, an occupational therapist can help the client make informed decisions if he or she want to attempt engage in his or her former sport of choice or consider alternative activities. The occupational therapist can also assist with identifying social support systems and development of healthy coping skills. The final category of the adaptive response is mature which consists of stable, goal-direct, and solution-oriented responses (Cole & Tufano, 2008). When the client is engaged in a mature response, an occupational therapist will collaborate with the client to empower him or her to make confident decisions about his or her goals to address in the interventions. When an athlete retires, he or she is faced is faced with a loss of occupation which in turn can cause a loss of identity. It is important to empower the client and allow them to have sense of control over when planning his or her interventions in order to make the transition process smoother.

When an athlete retires, he or she is faced with a loss of identity as well as numerous other possible life problems. In a study by Schwenk, Gorenflo, Dopp, and Hipple (2007), a survey was given to retired professional football players that assessed a variety of life problems following retirement from sport. The results of the survey were analyzed to determine depression levels, perceived status of health, and incidence of pain in each of the participants. Results indicated that the most common problems following

retirement include difficulty with pain, loss of fitness and lack of exercise, weight gain, and trouble with sleeping. Other problems were indicated such as difficulty with aging and transitioning into life after professional sport. The authors noted that retired professional football players are at a higher risk for depression due to pain and other reported problems. Therefore, it is suggested that this population would benefit from programs to either prevent these symptoms or help these athletes cope with the stressors in order to ensure a high quality of life after football (Schwenk, Gorenflo, Dopp, & Hipple, 2007). The participants of a study conducted by Schwenk, Gorenflo, Dopp, and Hipple (2007) were asked if programs relating to common problems athletes experience upon retirement would be beneficial for coping with the stresses after transitioning out of sport. Between 40-50% of the respondents indicated that programs that addressed the following areas would be helpful: fitness and exercise, nutrition, financial assistance, pain management, relaxation, distress or depression, and spirituality. Each of these areas is necessary in developing a comprehensive program to address the needs of athletes in transition.

Maintaining Quality of Life

Part of maintaining a healthy quality life is staying active in occupations that are meaningful and enjoyable. When an injury occurs it takes away from one's ability to engage in these activities. It is important to cope with the distress that the injury may have caused. Staying active in meaningful activities and coping with distress are ways to maintain a quality of life.

Staying active.

Maintaining a high quality of life is important following retirement from sport. Slater and Meade (2004) found that involvement in recreational sports has been shown to increase quality of life with individuals with severe injury above job, health and financial resources. Involvement in sport post-injury greatly depends on prior engagement level in sport due to the training routine that may be involved with the sport and the high demands that come along with competition (Slater & Meade, 2004). Only 22% of individuals with a SCI in the United States are actively involved in some sort of recreational sport (Slater & Meade, 2004). Those who do get involved in sport after their SCI become involved primarily due to peer recruitment (Slater & Meade, 2004). Although medical professionals may have the least influence on a client staying active or becoming active again in sports after a serious injury such as a SCI, it is still important for them to educate the individual on all his or her options to ensure he or she understands that it is possible to remain involved and realize the physical and psychological benefits (Slater & Meade, 2004).

Occupational therapists also provide education to assist the athlete in being aware of his or her ability to recognize the need for modification, change, or adaptation. The athlete recognizing his or her ability will facilitate the athlete in achieving *relative mastery* (Cole & Tufano, 2008). Relative mastery is the athlete's self-perception of his or her occupational responses that are measured by: efficiency of response, effectiveness of response, and satisfaction in his or her response (2008). By applying adaptive capacity and relative mastery to the rehabilitation process, the therapist can readily apply OA to treatment. The OA process includes looking at the athlete's occupational challenge in his

or her environment and role capacity (2008). What makes occupational therapy treatment and the OA process different from other rehabilitation professionals is the occupational therapist will addresses the occupational challenges by looking at the occupational environment, and the interaction that takes place between the athlete and his or her environment (2008). An athlete's occupational performance takes place in different environments that could consist of or be influenced by physical, cultural, and physical aspects (2008). Considering all of the environmental aspects is important because athlete's experience pressure from coaches, family, and teammates to return to activity and play (Cole & Tufano, 2008).

It is important to consider the environmental aspects of an athlete's life because it is likely that he or she experiences significant pressure from coaches, family, and teammates to return to activity and play. Podlog, Dimmock and Miller (2011) found three psychological areas of main concern that medical professionals need to address during the rehabilitation process. These three areas included: competence, relatedness and autonomy concerns. Competence concerns consist of re-injury anxieties, diminished confidence in performance and self-presentational (2011). Relatedness concerns include feelings of isolation, loss of identity, and insufficient social supports (2011). Autonomy concerns include pressure to return to sport before the athlete is physically and mentally ready (2011). Focusing on these psychological areas can reduce or prevent athletes' concerns in their return to activity after injury (2011).

Coping.

As an athlete tries to cope with the changes occurring within his or her athletic environment following injury, adaptation energy can be depleted by periods of transition

and stress. OTs can minimize this by using intervention strategies that have been identified by Podlog, Dimmock, and Miller (2011). Athletes who have a high level of stress and anxiety have a reduction in their adaptive capacity. Athletes may have many external and internal demands to meet, which causes high levels of stress and anxiety (Cole & Tufano, 2008). According to Podlog, Dimmock and Miller (2011), intervention strategies that have shown to be beneficial in reducing anxieties of returning to sport include relaxation techniques, imagery exercises, watching videos of previously injured athletes who have made full recoveries engaged in sport, physical fitness testing, self-presentation in sport questionnaire (SPSQ), cognitive reframing and keeping the athlete involved in team activities. Occupational therapy will plan the treatment of an athlete through the use of interventions that will assist the client in identify an occupational role that is compatible and personally meaningful. The occupational therapist will facilitate the ability of the client to participate in meaningful, satisfying and appropriate social activities that are within the athlete's performance capacity as measured by sensorimotor, cognitive, and psychosocial factors (Cole & Tufano, 2008).

Problem and Programming Needs

As noted throughout the literature review there is a need for programing for athletes in transitional phases. Presently, there is a lack of specific programing for athletes going through the transition process that has been identified in the literature. The product developed for this scholarly project provides the therapist with a stream line process to follow when considering the transition phases of athletes in order to provide a healthier transition for the athlete when simultaneously completing physical rehabilitation. This product covers the primitive response, transitional response, and the

mature response (Cole & Tufano, 2008) while discussing the three possible transitions an athlete may face. These transitions include transition back into sport following an injury with a possible role change, unanticipated transition out of sport, and anticipated transition out of sport. It is our intention, as stated earlier, to address the psychosocial needs, while incorporating the physical rehabilitation process. The product is designed for occupational therapist to work with the athlete during the physical rehabilitation process in conjunction with other rehabilitation professionals, doctors, coaches, and athletes.

In Chapter II, we outlined athletic statistics, injury statistics, psychological injury, addressing psychological injuries, defining occupational therapy, occupational therapy in sport, occupational therapy's role, theoretical foundation, Biomechanical FOR, OA, SDT, transition processes, transitions back to sport, not returning to sport, maintaining a quality, staying active, and coping, and problem and programming needs. Chapter III, the methodology section, will provide an overview of the process used to build the scholarly project.

Chapter III

Methodology

The purpose of chapter III is to provide an overview of the process that was used to develop the product in Chapter IV regarding the program *Role Transitioning for Athletes Coping with Injury and Occupational Loss*. The information in this chapter is described in the order of the process used to create the product. The processes consisted of conducting a literature review to identify available evidence, determining the appropriate content for the product, identifying the order in which the information should be presented in accordance with documented transitioning of the client, and utilizing selected theoretical information, literary evidence, and assessment resources to create the product/program.

To create a product that occupational therapists can use to treat athletes experiencing a psychological impact of a role transition, the authors reviewed numerous research articles found in published sources including peer-reviewed journals and textbooks. Online searches were conducted using Google Scholar, PubMed, PsycINFO, and CINAHL. The focus of these searches was to find information about the rehabilitation of athletes, affected areas of occupation of athletes, roles and environments of athletes, dynamics of being a part of a team, and life after sports and competition. Considering there is limited existing research or other published literature by any occupational therapy organizations or occupational therapists on this topic, information

was gleaned from sport psychology, behavioral medicine, and sport and exercise psychology literature. The authors selected two theories to guide the interventions in the manual, Occupational Adaptation (OA) and Self-Determination Theory (SDT). OA was selected due to the interaction process between the individual and his or her environment (Cole & Tufano, 2008). According to OA, individuals have the opportunity to adapt to their environments throughout their lifetime due to occupational challenges they encounter. For example, athletes who face injury or occupational loss may experience changes in their environments or roles. This athlete must be able to adapt when experiencing an injury or loss of occupation. SDT was chosen because it address the underlining motivation factors that drive and individual to engage in an activity (Podlog & Eklund, 2010). According to SDT, everyone falls on a motivation continuum that ranges from amotivation to intrinsically motivated (Podlog & Eklund, 2010). By identifying how the athlete is motivated, the therapist can better understand how to plan interventions and provided treatment that address the psychological aspects. For example, if the client is feeling pressure from teammates or coaches to return to sport, he or she may return to competition before feeling ready, ultimately risking re-injury due to lack of confidence or physical impairments. The client is not intrinsically motivated to return to competition which can have negative affect on performance and desire to engage in sport all together (Podlog & Eklund, 2010).

Through interpretation of reviewed literature and occupational therapy's scope of practice, a program was developed for occupational therapists for treating athletes during periods of role transition due to injury or other causes of retirement. Areas of occupation, categories of athletic treatment, assessment tools, and intervention techniques were

selected. There is currently no other programs, manuals, research, or textbooks that have been created for occupational therapists that focuses on treating athletes in these particular situations. Therefore, we have developed this manual because the scope of occupational therapy allows therapists to address both mental and physical deficits an individual may be experiencing. We believe that with a clearly defined scope of practice, the 2008 American Occupational Therapy Association's (AOTA) *Occupational Therapy Practice Framework: Domain and Process 2nd edition* supports the role of occupational therapy in an athlete's rehabilitation process.

Based on our research, three categories were identified to provide information for the occupational therapist who is working with an athlete. The categories are *Returning to Sport*, *Unanticipated Termination from Sport*, and *Anticipated Termination from Sport*. We developed these categories based on the literature review conducted indicating that athletes who experience these stages have different areas of occupation that are affected. Within the different categories, we have created different activities and interventions that an occupational therapist may find helpful for treating an athlete. Since the product shows the audience a sample of areas of occupation that may be affected, we carefully selected evaluation tools that will allow the occupational therapist to interpret data to determine which areas of occupation should be addressed with an athlete. The evaluation tools that were included in this project are: Athletic Identity Measurement Scale (AIMS) (Brewer & Cornelius, 2001), BriefCOPE (Carver, 1997), quickDASH (Institute for Work & Health 2006), Life Roles Inventory (Griffth & Johnson, 2002), and the Canadian Occupation Performance Measure (COPM) (Law, Baptiste, McColl, Opzoomer, Polatajko & Pollock, 1990).

Most of the research shows that athletes identify themselves as athletes; an identification that may lead to loss of focus on other roles they have in their lives. Thus, the AIMS and Life Roles Inventory were chosen to determine how much the individual considers him or herself to be an athlete, and how important the athletic role is to him or her. The BriefCOPE was selected to assess how well the athlete copes with problems in his or her life. Injury has shown to cause athletes stress and depression. The BriefCOPE allows the occupational therapist to determine whether or not the athlete needs to establish or enhance his or her coping skills. The quickDASH will be used to assess how the athlete's physical injury has impacted his or her ability to play his or her sport or engage in other occupations. Based on these findings, the occupational therapist can develop interventions that will allow the athlete to engage in their occupations confidently and successfully. Finally, the COPM was chosen because it allows the athlete to decide what areas of occupation he or she wants to address in therapy. It allows the athlete to identify his or her problems, and assess his or her performance satisfaction in the top 5 problem areas identified that can be in the areas of Self-Care, Productivity, and Leisure on a rating scale (1 to 10) prior to and after intervention.

Through literature review, the authors determined the areas of occupation that were commonly affected by athletes' injury or loss of occupation. The selection of interventions for the product was determined as a result of this process. The interventions are suggestions for other therapists to use; however, they should be adaptable to address other areas of occupation. The interventions are provided to promote positive participation in occupations that enhance the quality of life.

Our intention in Chapter III was to provide the reader with the background regarding the process the authors used when developing Chapter IV, the Product. A literature review was conducted to determine not only current research but also aspects of this topic that are lacking in evidence. The information gathered also determined the affected areas of occupation for interventions in Chapter IV. The two theories chosen for the manual guided the entire development of interventions for chapter IV. Chapter IV consists of a brief product description. The product (i.e. the complete manual) is located in the appendix, and will provide the reader with interventions and assessments to use when treating athletes who are affected by injury and occupational loss.

Chapter IV

Product

The purpose of this program was to develop a program to guide occupational therapists in the treatment of athletes going through the transition process following and injury. Furthermore, this program was designed to also advocate the importance of occupational therapists involvement in the treatment of the psychological injuries as well as the physical injuries an athlete may be face. The *Role Transitioning for Athletes Coping with Injury and Occupational Loss Manual* was structured into three categories where athletes' could benefit from occupational therapy services. The three categories are *Returning to Sport, Anticipated Termination from Sport,* and *Unanticipated Termination from Sport.* The categories were developed based upon the findings from the literature review. Each category has examples of areas of occupation that are affected within it. The interventions that are provided for the affected areas of occupation are provided in the order of responses to expect based on the OA theory. The responses are primitive, transitional and mature (Cole & Tufano, 2008; Schkade & Schulz, 1992a). These responses are explained more in the appendix with the rest of the manual.

This product is intended to be used as a guide to treat athletes whose affected areas of occupation correlate or are similar to the ones in the manual. The affected areas of occupation may be different with each athlete. The information and interventions in the manual were selected based on the most common affected areas of occupation in the literature review. The product is not designed to limit the clinicians' interventions or role

in treating athletes. The manual should be used to structure interventions and evaluate athletes with appropriate assessments. The activities should be modified or the clinician should develop other interventions based on the athletes' needs.

Role Transitioning for Athletes Coping with Injury and Occupational Loss was specifically designed to illustrate the need for occupational therapy services, and to illustrate how engagement in occupations is important for the quality of life. The interventions are meant to be "occupation-based" to increase the athlete's participation in occupational therapy. OA was selected to guide the product because athletes need the ability to adapt to participate in occupations when they experience injury or termination from sport. We felt the OA theory was appropriate because the literature review showed common affected areas of occupations for injured and athletes who were not longer playing their sport. Many athletes are resistant to therapy and may be in denial that their career is over, which leads to withdrawal from other occupations. OA's responses and adaptive capacity which have been explained in the appendix will help the reader understand the OA terminology. Self-Determination Theory (SDT) was chosen because it looks at the motivating factor behind the client's engagement in his or her sport. Understanding if the client is motivated for intrinsic reasons, or if he or she is motivated by variables on an extrinsic continuum, will allow the client and/or therapist to better understand and deal with possible stressors. When individuals are motivated intrinsically, it is the purest form or motivation, engaging in the sport out of sheer enjoyment, not guilt, anxiety, financial support, or acceptance. Athletes who gain an understanding of what is truly motivating them to engage in sport have easier transition back into or out of sport

(Podlog & Eklund, 2010). We found this to be an important aspect when treating the client holistically and felt including SDT with OA would enhance the program further

The product, *Role Transitioning for Athletes Coping with Injury and Occupational Loss*, can be found in the appendices section of this scholarly project. The product, along with other chapters of this scholarly project was developed in fulfillment of the requirements for the Masters of Occupational Therapy degree at the University of North Dakota. The references used within the entire scholarly project can be found in the references section following Chapter V. In Chapter IV, we reviewed the purpose and structure of this scholarly project. Chapter V consists of a summary of the scholarly project.

Chapter V

Summary

The purpose of this project was to develop a guide for occupational therapists to use when treating athletes who are in the process of going through a role transition due to injury, de-selection or retirement. Currently, there is no published program or manual for occupational therapist to utilize when treating athletes. This scholarly project addresses the need for occupational therapy to be involved with the rehabilitation process with athletes and provides assessments and intervention tools and areas of occupation for therapists to utilize when working with athletes during various phases of role transitions.

Role Transitioning for Athletes Coping with Injury and Occupational Loss was created to provide therapists with a guideline for treatment and interventions that can be used with athletes. The manual is comprised of three areas that focus on obstacles that athletes face throughout their athletic career. The manual provides example areas of occupation that can be affected when an athlete experiences an injury or is transitioning out of competitive sports.

The goal of the *Role Transitioning for Athletes Coping with Injury and Occupational Loss* program is to enhance the health and wellness of athletes going through the role transition process, make the transition smoother, and to outline the role occupational therapist play in the treatment of athletes in the rehabilitation process. This program was designed using the occupational therapy model, Occupational Adaptation (OA) to guide its interventions for treatment planning. The program consists of a manual

that includes assessment and intervention examples for occupational therpaist with a focus on interventions that are occupation-based and designed to assist the athlete in adapting to new or changing roles. Users of this manual are encouraged to use the authors' intervention examples and also to adapt or create activities that will best meet the clients' needs and environment.

Effectiveness of this program will be measured by client feedback through the assessments identified, which include: Brief COPE, *Quick* DASH, Canadian occupational performance measure (COPM), life role inventory, athletic identity measure scale (AIMS).

Limitations that were identified during the development of this program were lack of literature focusing on athlete's role transition, limited literature available in any profession regarding specific programming for this population, and the developed program not being tested. Provided more time the authors would have liked opportunity to test the program in order to collect data and feedback from athletes and incorporate it to the program design.

When creating this program, we envisioned it being implemented in a facility that does not have direct access or has limited access to sport psychologist. It is intended to be utilized in conjunction with the physical rehabilitation process in order to address the athlete's needs in a holistic manner.

Our goal when developing this manual was to provide therapists with the proper instruments and assessments to gather data and determine interventions that will lead to positive outcomes. We hope that through reviewing the *Role Transitioning for Athletes Coping with Injury and Occupational Loss* manual, other therapists will use it as a tool to

guide their practice in order to provide a holistic client-centered approach that focuses on the stressful demands that an athlete faces while going through a role transition and developing a healthy lifestyle after sports.

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Appendix

Role Transition for Athletes Coping with Injury and Occupational Loss Manual

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Table of Content

Product Overview

Brief Explanation of Program

The goal of this program is to increase the ease with which athletes faced with injury or occupational loss transition between roles. This program is based on a holistic approach that includes the psychological aspects of the client as well as the physical aspects. This program provides an outline for therapist to following in order to address these psychological aspects. The manual also provides optional intervention strategies and assessments that walk the therapist through the role transition process facilitating a smoother transition for clients.

Population

The focus population of this program is high school, collegiate, armature, and professional athletes who are going through a role transition back to sport, anticipated transition out of sport, or unanticipated transition out of sport. Many athletes do not have access to sports psychologist at his or her facility but would benefit from addressing the psychological aspect of an injury or role transition caused by injury, de-selection, or retirement.

Theoretical Foundation Overview

This program was developed using two theoretical models, Occupational Adaptation (OA) and Self-determination Theory (SDT). OA was selected because it involves a collaborative effort of the therapist and client to determine what they would look to achieve. According to Taylor (2008), collaboration is defined as making decisions jointly with clients, involving the client in reasoning about therapy, and expecting the client to be involved in all aspects of therapy. It is up to the client to

determine necessary steps to achieve *relative mastery* which is the client's self-assessment of his or her occupational response that reviews efficiency, effectiveness, and satisfaction (Cole & Tufano, 2008). The authors believe that clients want to achieve relative mastery in his or her sports he or she participates in. The authors believe due to an athlete's competitive nature OA suits this program the best. SDT was chosen because it looks at the motivating factor behind the client's engagement in his or her sport. By knowing what is or why the client is motivated can make the transition process easier for both the therapist, and the client. Understanding if the client is motivated for intrinsic reasons or if he or she is motivated by variables on the extrinsic continuum, will allow the client and/or therapist to better understand and deal with possible stressors. SDT also allows the therapist to identify these areas and provides an avenue for the therapist to establish or restore (AOTA, 2008) his or her motivation back to the intrinsic side of the continuum. When individuals are motivated intrinsically, it is the purest form or motivation, engaging in the sport out of sheer enjoyment, not guilt, anxiety, financial support, or acceptance. The authors found this to be an important aspect when treating the client holistically and felt including SDT with OA would enhance the program further.

Occupational Adaptation (OA) to Guide Treatment

Focus of OA

OA provides a unique perspective to a clients' situation because it is centered around the idea that the person is the agent of change (Cole & Tufano, 2008). The individual must be internally motivated to take the steps necessary to fully adapt to the changes that occur with the deficit. An occupational therapist's role is to empower the client to achieve mastery of all desired

skills through selection of meaningful interventions and a collaborative approach to setting realistic goals. The therapist also helps the client create a supportive, therapeutic environment that promotes success in desired occupations, as well as opportunity for enhancement in efficiency and mastery of skills. Below are the four key components that are the foci of OA and critical to therapist effectively using OA.

- Occupations
    - Meaningful activities that include a process and product (Cole & Tufano, 2008).
- Adaptive Capacity
    - Athletes ability to acknowledge their need for change, modification, or adaptation (Cole & Tufano, 2008).
- Relative Mastery
    - Self-assessment of the athletes' occupational response
        - Reviews efficiency of response, effectiveness of response, satisfaction in response as determined by internal and external perceptions (Cole & Tufano, 2008).
- Occupational Adaptation Process
    - Occurs when athlete is faced occupational challenge and includes:
        - The person
        - Occupational environment (Cole & Tufano, 2008).

Adaptive Responses

Adaptive responses are constructs within the Occupational Adaption Model and consist of a primitive response, transitional response, and a mature response (Cole & Tufano, 2008). The primitive response consists of being hyperstable, immobile and the appearing of being stuck (Cole & Tufano, 2008). In this phase, the main area of focus in this program is addressing social support, coping skills and the loss of athletic identity. The therapist's main challenge is to build rapport with the client. Therapists should be honest and straightforward when interacting with the client to assist the client in transitioning through this phase efficiently. During this phase, the client will need the most structure and direction in the interventions and thus an instructing mode (cite) is recommended. In the instructing mode, the therapist emphasizes "educational aspects of therapy and assume[s] a teaching stance in a client-therapist interaction" (Taylor, 2008, p. 71).

Transitional response is defined by a person's behavior that is described as being hypermobile, lacking clear direction (Cole & Tufano, 2008). In this phase, loss of social supports, poor coping skills, loss of athletic identity, physical deficits, loss of confidence, occupational loss, and leisure activities will be the focus. The therapist needs to be straight forward in his or her communication with the client regarding his or her prognosis, making sure the client is educated and is setting realistic goals for him or herself.

Mature response consists of behaviors that are stable, goal-directed and solution-oriented (Cole & Tufano, 2008). In this phase, the focus shifts from social support and focuses more on building confidence, regaining physical ability, and/or focusing on new roles, occupational loss, new or old leisure activities and the utilization of healthy coping skills. The therapist

will need to do one of two things in this stage: 1) ensure the client's confidence is built up or educated on his or her realistic physical abilities to his or her physical ability or 2) facilitate the client in developing a plan for not returning to his or her sport.

Self-Determination Theory (SDT)

Self-Determination Theory (SDT) is utilized in the rehabilitation process so that the therapist can better identify how the client is motivated to engagement in his or her sport. SDT considers motivation on a self-determination continuum that ranges from amotivation, (the lowest level of motivation) to intrinsic motivation (the highest level of motivation) (Podlog & Eklund, 2010). Extrinsic motivation makes up and spans the continuum which includes: 1) amotivation, 2) external regulation, 3) introjected regulation, 4) identified regulation and 5) integrated regulation (Podlog & Eklund, 2010). Where an individual lands on this continuum is called his or her motivation state. *Amotivation* is characterized by being the least motivated, lacking intent to act (Podlog & Eklund, 2010). *External regulation* describes behavior that is performed to obtain reward such as money or to avoid negative reactions, such as criticism (Podlog & Eklund, 2010). *Introjected regulation* is behavior that is characterized as being done to avoid guilt and anxiety or to attain an ego boost such as pride (Podlog & Eklund, 2010). *Identified regulation* is exhibited when an individual performs the act out of personal valuation and endorsement. Examples of these would be returning for a big competition or to meet selection criteria (Podlog & Eklund, 2010). *Integrated regulation* occurs when identified regulated behavior occurs in line with one's own values and needs. Examples of these would be returning because he or she loves to demonstrate his or her athletic ability (Podlog & Eklund, 2010). Identified and integrated regulations are both considered extrinsic because they are being performed for an outcome other than personal enjoyment

(Podlog & Eklund, 2010). Finally, intrinsic motivated behavior is characterized as being performed out of sheer enjoyment for the act itself (Podlog & Eklund, 2010). When a client is intrinsically motivated to engage in a sport, he or she will be more successful in the rehabilitation process. If a client experiencing or using only extrinsic motivation, the likelihood of his or her success decreases because the client is not engaging in the sport for sheer enjoyment. Other factors may be playing a role such as guilt, anxiety, pressure, financial support, and sense of responsibility. It is important to recognize what motivates the client in order to understand his or her reasoning for competing in the first place. If a client is extrinsically motivated, he or she might push him or herself to hard or return back too early in order to relieve the pressure from peers or coaches, risking re-injury. If the client is unable to return to sport, he or she might be overwhelmed with guilt and suffer additional psychological distress, feeling as if he or she is letting teammates, coaches or even parents down. Throughout an athlete's career his or her motivation may change. It may start out as intrinsic motivation but shift along the continuum to the extrinsic motivation without the athlete realizing it. Identifying the motivation for engaging in sport may possibly relieve the distress the client may be feeling, making for a smoother transition process.

Focus of SDT

- Different levels of motivation
    - Amotivation
        - Least amount of motivation
    - Intrinsic Motivation
        - Highest amount of motivation
    - Extrinsic Motivation

- Includes the following:
    - Amotivation
        - Least motivation, lack of intent to act
    - External Regulation
        - Behaviors performed for praise
    - Introjected Regulation
        - Behaviors done to avoid guilt or boost ego
    - Identified Regulation
        - Behaviors performed for personal valuation
    - Integrated Regulation
        - Behaviors that occur with one's values and needs.

(Podlog & Eklund, 2010)

Program's Areas of Focus:

The areas of focus were selected after an extensive literature review was done on the topic of *Role Transitioning for Athletes Coping with Injury and Occupational Loss*. Based on the literature review, we identified seven areas that have been documented to be difficult for athletes during unanticipated retirement, anticipated retirement and returning back to sports after injury transition process: *Loss of Social Support, Poor Coping Skills, Loss of Athletic Identity, Physical Deficits, Loss of Confidence, Occupational Loss,* and *Leisure Activities*.

- Assessment/Evaluation: Choose what assessments to use when evaluating your client for Occupational Therapy services. This manual includes assessments that are recommended by the authors to utilize when working with athletes in the transition process. The recommended assessments are: 1) Athletic Identity Measurement Scale (AIMS),which measures the degree of importance the individual has on the athletic role, 2) Brief COPE which measures an individual's ability to cope with perceived stress, 3) Life Role Inventory which measures the importance certain roles are to an individual, 4) *Quick* Disability of the Shoulder and Hand Outcome Measure (*Quick* DASH), which measures the impact an injury and the symptoms have on an individual's everyday life, and 5) Canadian Occupational Performance Measure (COPM), which measures the clients self-perception of their occupational performance over time.
- Primitive Response – When a client lacks direction, or appears stuck (Cole & Tufano, 2008).

- Transitional Response – When a client is considering making change, but still contemplating and no clear direction (Cole & Tufano, 2008).

- Mature Response – Client has decided to make necessary changes, and is goal-oriented (Cole & Tufano, 2008).

- Reassessment – Utilized same assessments used during evaluation process to determine if positive outcomes were made during occupational therapy services.

Figure 1. Potential assessments to be utilized

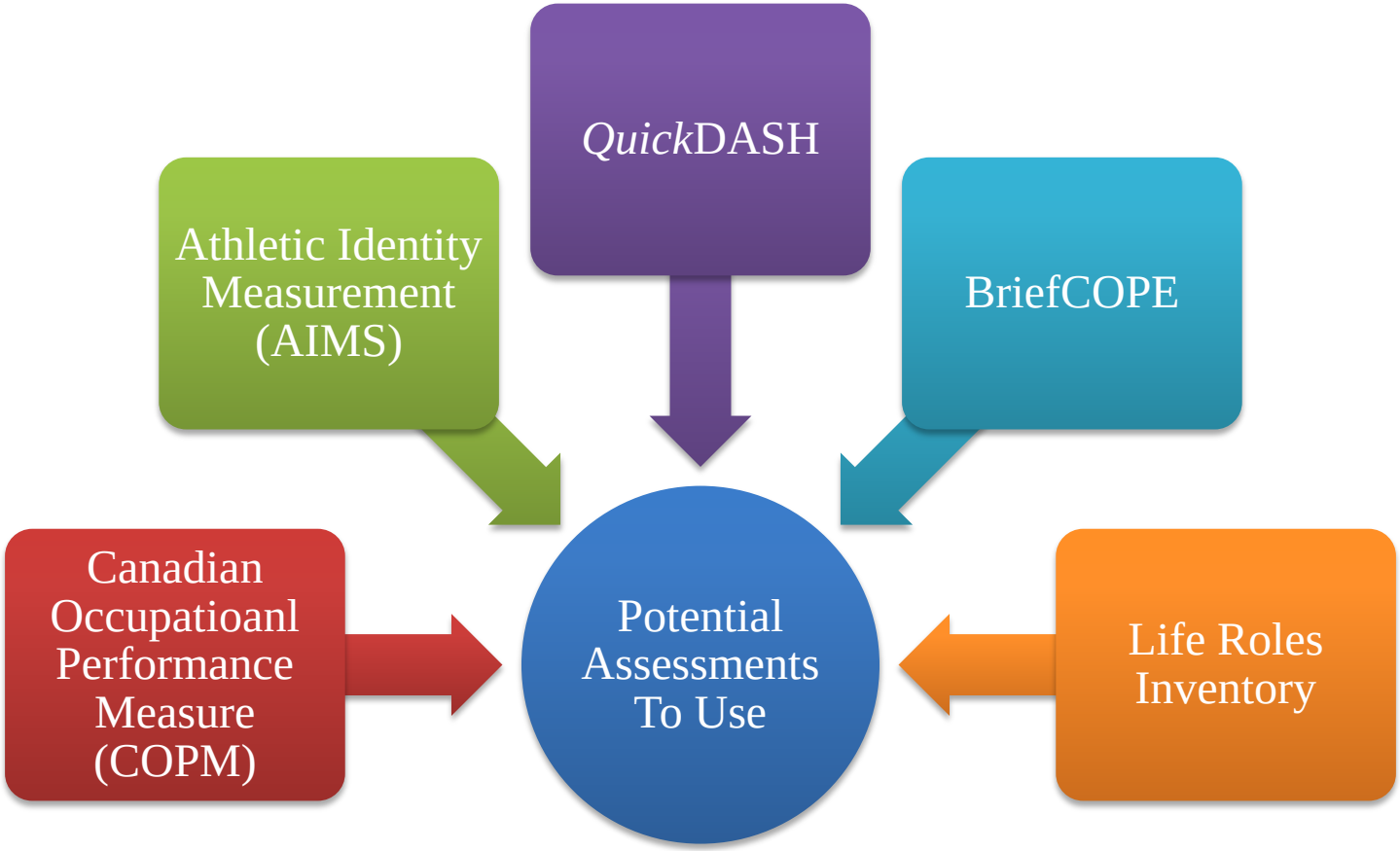


Figure 1. Illustrates the potential assessments that are recommended in this program.

COPM

- The COPM allows the client to rate his or her satisfaction with his or her performance of occupations he or she wants to improve. Useful outcome measure.
- This will allow the athlete to set his or her goals and rate his or her perceived performance of the skills on which he or she wishes to work.
- Law, M., Baptiste , S., McColl, M., Opzoomer, A., Polatajko, H., & Pollock, N. (1990). The canadian occupational performance measure: An outcome measure for occupational therapy. *Canadian Journal of Occupational Therapy*, *57*(2), 82-87. Retrieved from http://www.caot.ca/pdfs/57(2)82-87.pdf

AIMS

- The AIMS uses the 7 questions to find out how important and how the client perceive him or herself as an athlete.
- Uses a Likert scale for the client to identify from 1 to 7 how much he or she identifies him or herself as an athlete. Consists of seven questions.
- Brewer, B. W., & Cornelius, A. E. (2001). Norms and factorial invariance of the Athletic Identity Measurement Scale. *Academic Athletic Journal*, *15*, 103-113.

*Quick*DASH

- Uses Likert scale to identify from 1 to 5 how much an injury is affecting the athletes' physical performance.
- The Q*uick*DASH measures the client's perception as to how his or her injury or deficits is affecting their occupation.
- Institute for Work & Health. (2006). *Quick* DASH. Retrieved from http://www.dash.iwh.on.ca/conditions-use.

BriefCOPE

- The briefCOPE is used to identify how a client is able to cope with stressors in his or her life.
- The client is asked to rate how he or she has been coping with problems using a Likert scale of 1 to 4.
- Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine*, 4, 92-100

Life Roles Inventory

- The client is asked to rate the importance of seven life roles in order that it pertains to him or her. Roles consist of Family, Academic, Romantic Partner, Friendship, Athletic, Spiritual, and Extracurricular roles.
- Through these seven categories, the therapist can prioritize the roles to focus on for therapy to increase client engagement in occupation.
- Griffith, K. A., & Johnson, K. A., (N.D.) Athletic Identity and Roles of Division I and Division III Collegiate Athletes. Retrieved from: http://murphylibrary.uwlax.edu/digital/jur/2002/griffith-johnson.pdf

Discharge

Throughout the program three types of transitions are addressed, these include returning to sport, anticipated transition out of sport, and unanticipated transition out of sport. Each of these areas will be color coded in order to provide the therapist an easier time to follow the program. The colors are as followed:

Return to Sport	Green
Anticipated Transition Out of Sport	Red
Unanticipated Transition Out of Sport	Blue

Figure 2. Overview of the Process

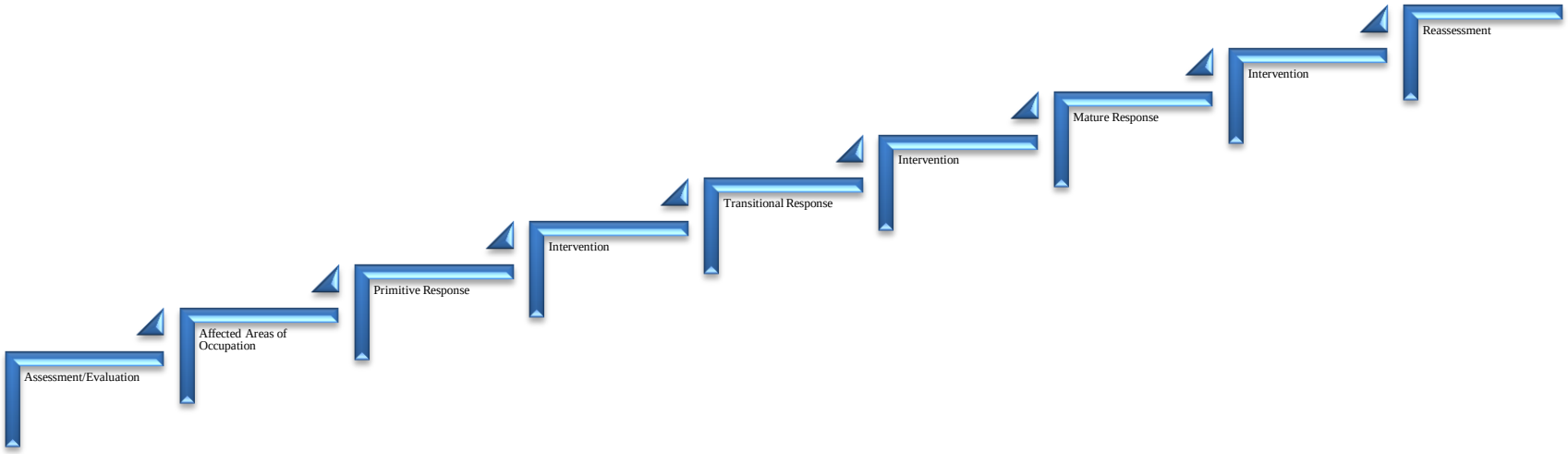


Figure 2. Illustrates the intended process of the Role Transitioning Manual.

Returning to Sport

Returning to Sport

In this section, the focus is on athletes who are returning back into sport competition. It has been determined through literature review that athlete's returning back to sport needs specific attention on remaining actively involved with the team and to rebuild his or her confidence (Podlog & Eklund, 2010). It is important that the athlete remain an active part of the team to ensure the athlete does not feel left out or lose his or her support system. It is also important for the athlete to rebuild his or her confidence to avoid re-injury. This is done by working collaboratively with the therapist in order to set realistic and obtainable goals. By doing so the client is able to see physical evidence of his or her progress and accomplishments. Assessments that will be utilized will be the AIMS, Brief COPE, Life Roles Inventory, *Quick* DASH and the COPM. These assessments will be administered during the first session to establish a baseline. Recommended activities are provided throughout this section and can be utilized together or individually. This section will also highlight the three transition phases the client may experience through when faced with the *returning to sport* following an injury transition which includes the primitive response, transitional response, and the mature response.

Figure 3. Affected areas addressed in returning to sport

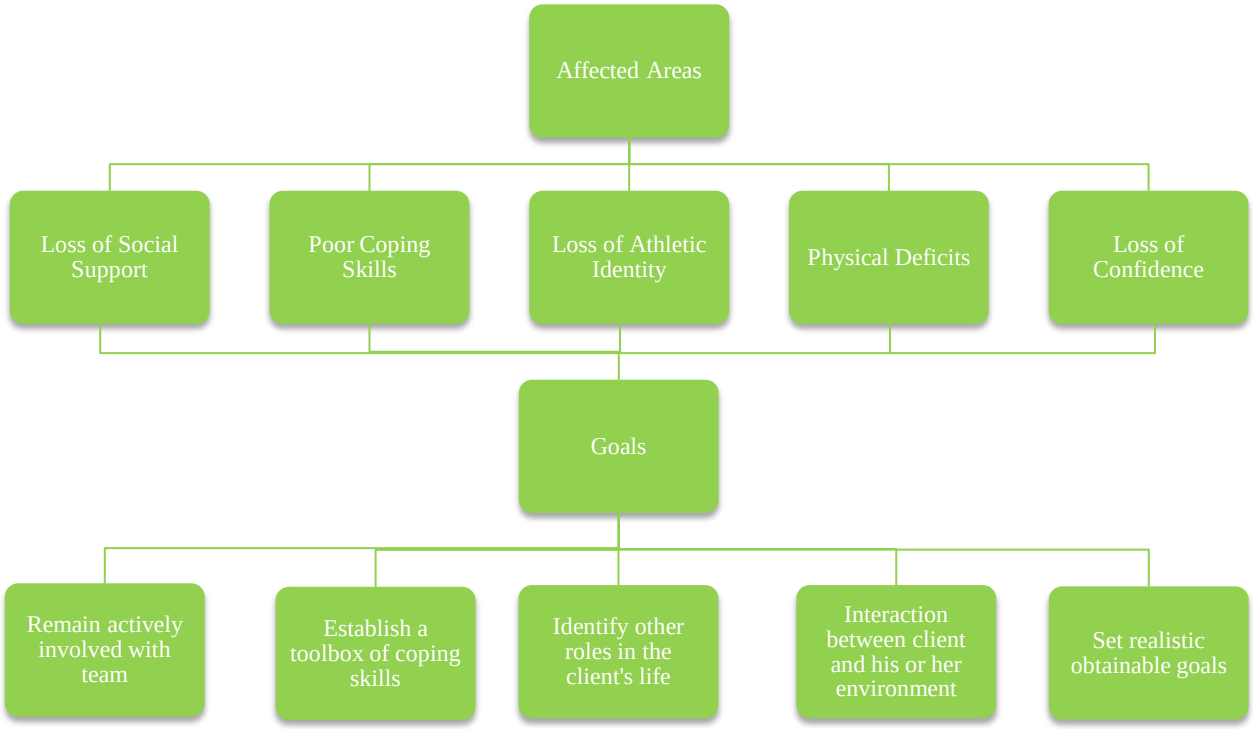


Figure 3. Illustrates the returning to sport process of identifying affected areas, setting goals, and possible interventions to address the affected areas.

Figure 4. Examples of Primitive Responses

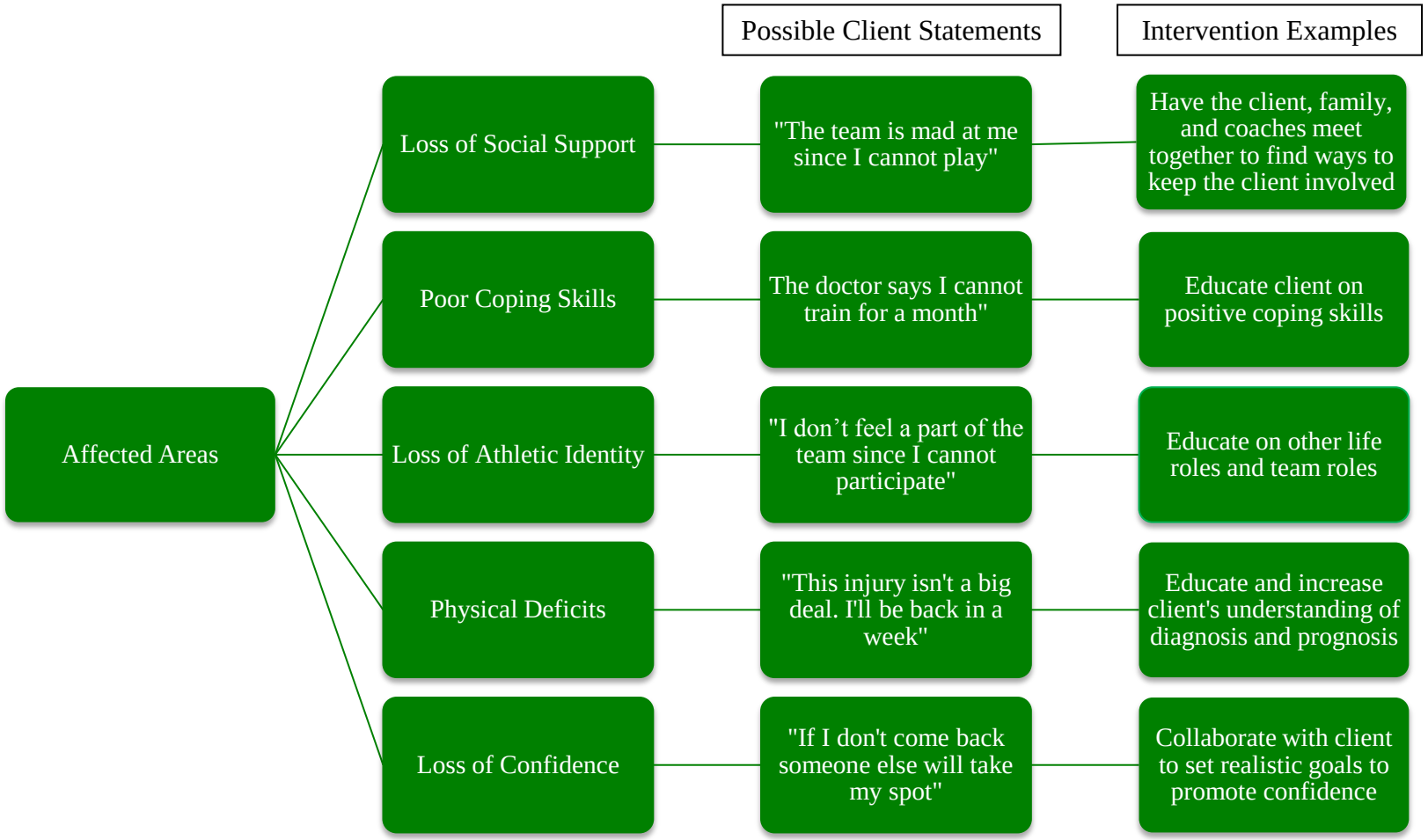


Figure 4. Provides examples of affected areas, client statements, and interventions for athletes in a primitive recovery stage.

I. Social support interventions

a. The purpose is to educate the client on the importance of having social supports as well as to establish new support systems to take place of his or her support system that may be lost during while the client recovers from his or her injury.

i. Set up meeting with coaches and family to discuss how the client can stay involved with the team by engaging in activities identified by the coaches, family, client or occupational therapist.

ii. Have the client complete "Who Do I Talk to Worksheet" (see p. 37).

iii. Have client identify three teammates or friends outside of his or her sport to contact in order to build and add onto his or her current support system.

II. Poor coping skills interventions

a. The purpose is to teach the client about negative and positive coping strategies that he or she can utilize outside the clinic.

i. Administer the Brief COPE

- In order to identify how the client copes with stress.

ii. Educate client on positive and negative coping strategies.

- It is important the client understands the differences between choosing positive and negative coping strategies and their consequences in order to make an educational decision to fit the client's needs and interests.

iii. How Do You Cope? Worksheet

- The purpose of the worksheet is to understand the client's coping skills that will help the therapist later assist the client in using positive coping strategies.

iii. Introduce and explain the purpose of reflective journaling

- Provide the client with reflective journaling worksheet or have client journal about his or her directed and purposeful thoughts and feelings.

III. Loss of athletic identity interventions

a. The purpose is to identify additional roles the client may not be aware of and to promote increased participation in those other life roles.

i. Administer the AIMS

ii. Provide client with role association worksheet

- This will increase the client's identification of roles in which they may participate.

- This worksheet can be adapted or therapists could create their own worksheet.

iii. Life Roles Inventory

- Purpose of the Life Roles Inventory is to assess the importance of various roles and identities in the client's life.
- Educate client on the importance of different roles with which he or she associates and which ones are important to him or her.

IV. Physical deficits interventions

a. The purpose is to educate the client on his or her diagnosis and prognosis of his or her injury.

- For therapists addressing the physical injury of the athlete, evaluations and interventions should progress as indicated by the client's diagnosis. The *Quick* DASH should be administered to gain an understanding of the client's perceptions of his or her functional ability.

i. Administer *Quick* DASH

- Therapists can use the entire *Quick* DASH assessment or just the sports/instrument module portion.

V. Loss in confidence interventions

a. The purpose is to collaborate with the client to create realistic goals to promote athlete confidence.

i. Administer the COPM

- Administering the COPM is highly recommended for this area. The COPM allows the client to create and set his or her goals and assess the client's perceived performance of his or her goal areas.

ii. Break goals down into long term and short term goals

- Breaking down goals will allow the client to see progress made towards long term goals increasing the client's confidence.
- Examples of some goals:
  - Long-Term Goal – Client will be able to engage in full pads and tackling drills with team in two months.
    - Short-Term Goal – Client will engage in non-contact passing drills within one month.
    - Short-Term Goal – Client will engage in no pads walk thru drills in two weeks.

- Long-Term Goal- Client will be able to identify and demonstrate five healthy coping strategies in order to deal with stress/anxiety within one month.
    - Short-Term Goal- Client will be able to identify five healthy coping strategies and utilize three of them effectively within two weeks.
    - Short-Term Goal- Client will be able to identify five healthy coping strategies and utilize four of them effectively within three weeks.

Roles Association

Instructions: The client reviews the activities in column A and chooses what role/roles (from column B) he or she fulfills when engaging. The activities can be associated with more than one role based on the client. This allows the client to visualize what roles he or she engages in alone or with others. The therapist can add additional roles and activities as needed.

Name: Date:

DOB:

Column A Activity	Colum B Role
Eating Thanksgiving Dinner	Student
Going to a movie	Family Member
Going fishing	Worker
Completing homework	Athlete
Attending Church	Significant other
Interacting with others at work	Brother/Sister
Playing Sports	Spiritual
Interacting with siblings	Son/Daughter
Asking for guidance	Friend

Figure 5. Examples of Transitional Responses

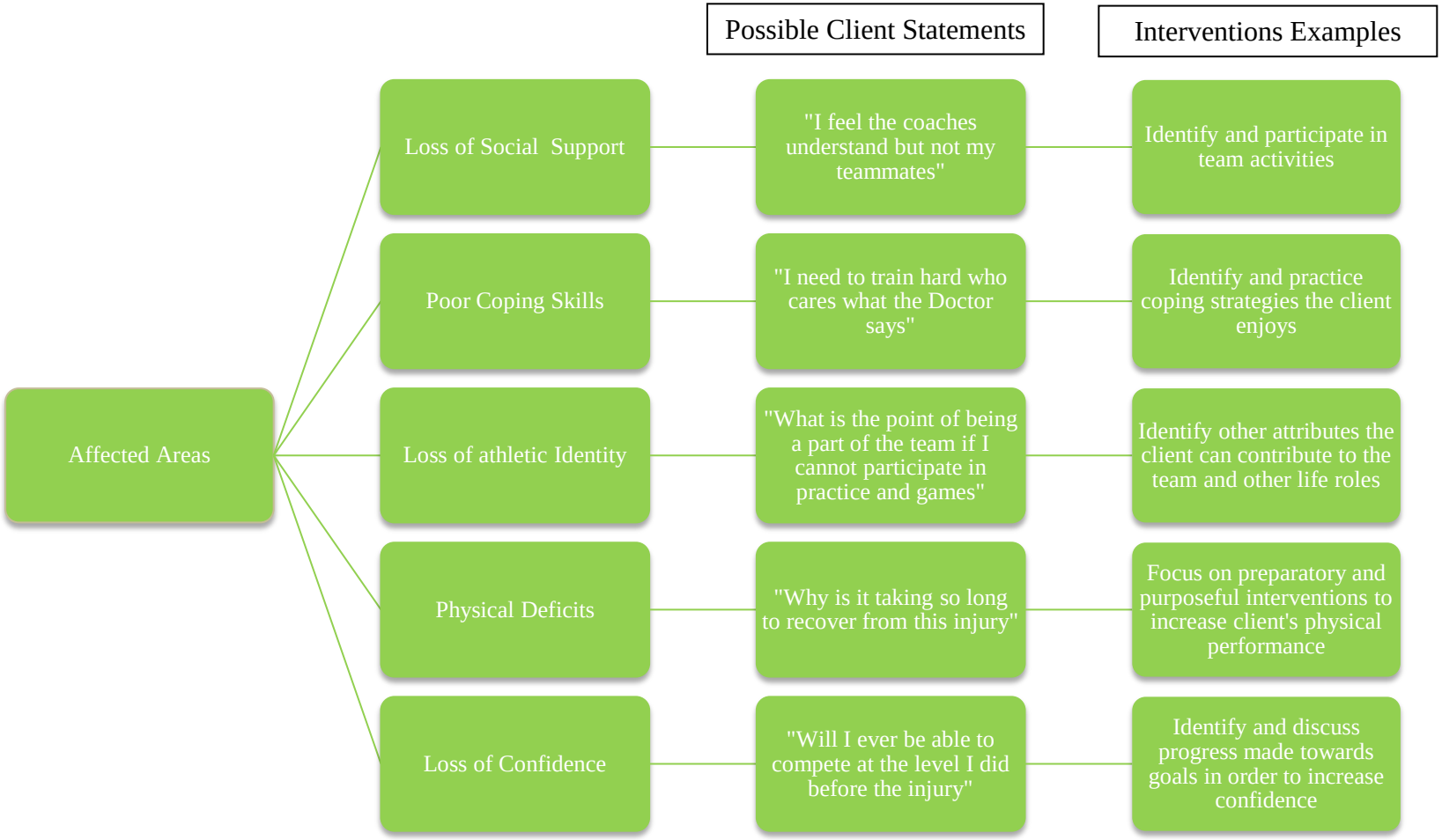


Figure 5. Provides examples of affected areas, client statements, and interventions for athletes in a transitional recovery stage.

I. Loss of social support interventions

a. The purpose is to keep the client involved in team activities in order for him/her to feel and remain a part of the team through the rehabilitation process.

i. Discuss with the client different team activities he or she would like to engage in.

ii. Have the client make social plans with teammates outside of practice in order to develop stronger relationships and to continue to build on current support systems.

II. Poor coping skills interventions

a. The purpose is to promote healthy coping strategies. Find enjoyable activities the client can utilize while dealing with stress and stressful situations.

i. Identify five coping strategies the client likes and practice them ensuring the client understands how and when to utilize them.

<u>Coping Strategies Toolbox</u>

1.

2.

3.

4.

5.

ii. Assign the client to journal on the coping strategies he or she utilized in between meeting with the therapist answering questions such as:
    1. What strategy did I utilize and in what situation did I utilize it?
    2. How did I feel before and how did I feel after?
    3. What did I like about this strategy?
    4. What did I dislike?

iii. Examples of coping strategies to try:

i. <u>Deep breathing exercise (www.helpguide.org)</u>
- Breathe in slowly, counting to five
- Hold your breath for a two seconds
- Breathe out slowly, counting to five
- Repeat until you feel relaxed

ii. <u>Progressive muscle relaxation techniques (www.helpguide.org)</u>
- Find a quiet secluded place
- Loosen up your clothing and make yourself comfortable
- Start with deep breathing technique to relax
- Focus on your attention on how your right foot feels, gradually tense up the muscles in your right foot and hold it for a count of ten seconds and relax
- Feel the tension leave your foot and continue the deep breathing techniques
- Next move to your left foot and repeat the steps
- Work your way up your legs through your torso to your arms and finish with your head
- Move slowly not to rush the process hitting all your muscle groups
- Suggested routine:
    1. Right foot
    2. Left Foot
    3. Right calf
    4. Left calf
    5. Right thigh
    6. Left thigh
    7. Gluts
    8. Stomach
    9. Chest
    10. Back
    11. Right Limb
    12. Left Limb
    13. Neck & Shoulder
    14. Head

iii. Visualization/ Meditation (www.helpguide.org)
- Find a quiet place
- Close your eyes and take deep slow breaths
- Imagine yourself in a calm place or doing something that makes you happy

iv. Workout Routine
v. Reading a book
vi. Eating Healthy

III. Loss of athletic identity interventions

a. The purpose is to keep the client involved in his or her sport as much as possible to retain his or her identity of being an athlete.

i. Focus on roles that are meaningful to the client and identified by the Life Roles Inventory

- Use Life Roles Inventory to determine 3 activities/characteristics associated with each identified role
- Have the client identify other team roles he or she can take on while he or she is unable to participate fully in practice and competition. Doing this will allow the client to contributing to the team as well as build confidence and remain in his or her support system.

IV. Physical deficit interventions

a. The purpose is to educate the client on his or her diagnosis and prognosis of his or her injury.

b. For therapist addressing the physical injury of the athlete, evaluations and interventions should progress as indicated by the client's diagnosis and as directed by a physician. The *Quick* DASH should be administered to gain an understanding of the client's perceptions of his or her functional ability.

V. Loss of confidence interventions

a. The purpose is to increase the confidence of the client in order for him or her to return to sport without hesitation ultimately decreasing the risk of re-injury.

i. During each session, it is important to identify progress made in order to build the confidence of the client. This will be done through assessments, re-assessments and accomplishment of the goals set by the client and therapist.

Figure 6. Examples of Mature Responses

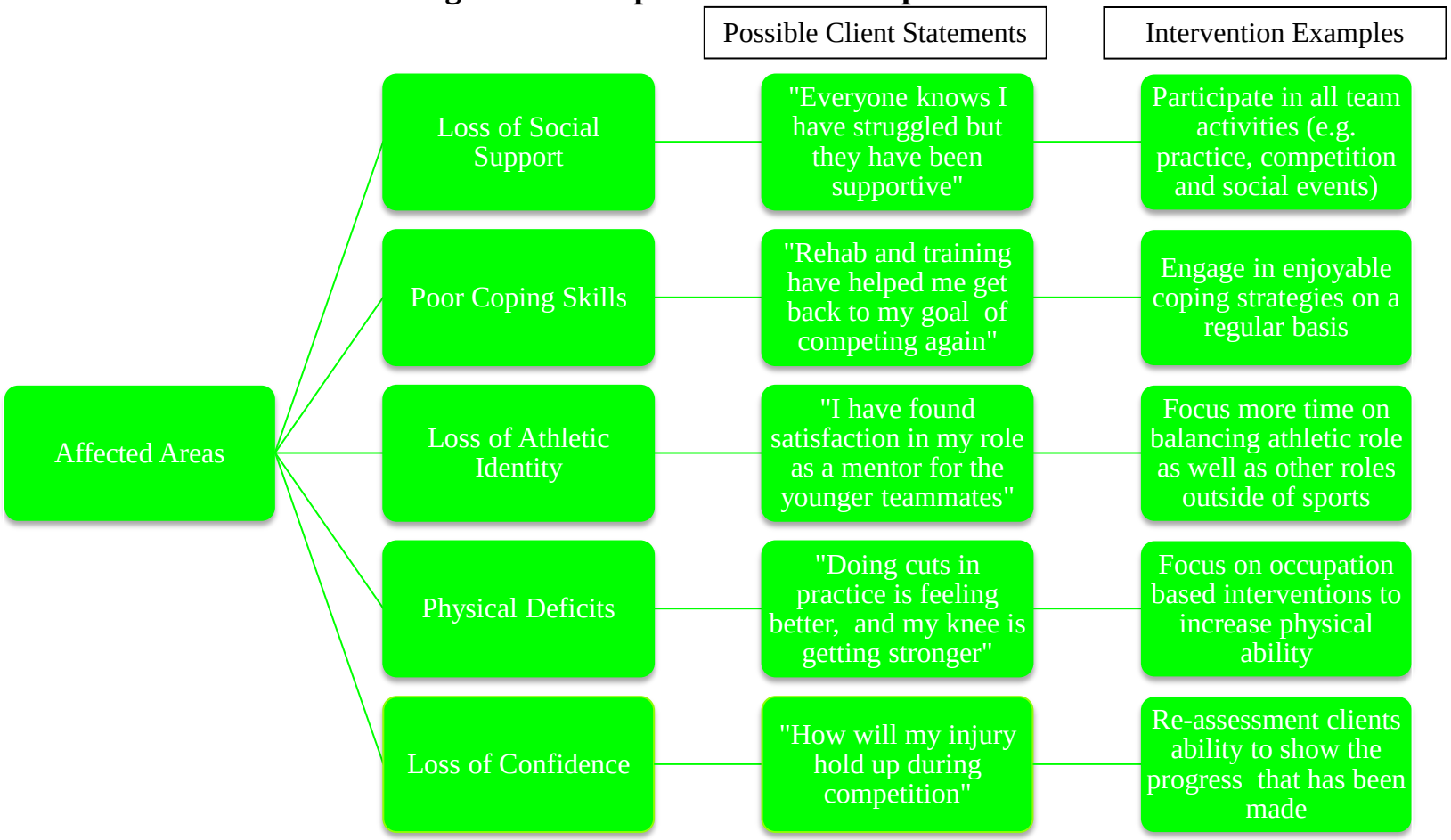


Figure 6. Provides examples of affected areas, client statements, and interventions for athletes in a mature recovery stage.

I. Loss of social support interventions

   a. The purpose of engaging in team activities is for the client to remain an active member of the team and retain a close relationship with his or her teammates.

      i. Client will contact teammates to participate in team social activities away from practice and competition in order to continue building on current support system.

      ii. Identify additional ways for client to stay active with the team as an assistant coach or mentor to the younger athletes.

II. Poor coping skills interventions

   a. The purpose is to develop healthy and sustainable coping strategies. By identifying strategies the client finds enjoyable, the client will be more likely to use those strategies.

      i. Have the client establish a healthy routine by discussing and writing out his or her plan to engage in healthy coping strategies.

III. Loss of athletic identity interventions

   a. The purpose of balancing time between roles is so the client does not only identify with the one role but, instead he or she develops other roles that define him or her and contribute to his or her identity.

      i. Focus on roles that are meaningful to the client and identified by the Life Roles Inventory

- Using the Life Role Inventory and prior discussions identify other roles that the client finds meaningful and develop a plan to engage in these roles.

IV. Physical deficit interventions

a. The purpose is to educate the client on his or her diagnosis and prognosis of his or her injury.

b. For therapist addressing the physical injury of the athlete, evaluations and interventions should progress as indicated by the client's diagnosis. The *Quick* DASH should be administered to gain an understanding of the client's perceptions of his or her functional ability.

V. Loss of confidence interventions

a. The purpose is to increase the confidence of the client in order for him or her to return to their sport without hesitation decreasing the risk of re-injury.

i. Re-assessment will be done in order for the client to see physically he or she is ready to return to full competition without hesitation.

Anticipated Transition Out of Sport

Anticipated Transition Out of Sport

The focus of this section is on the *anticipated transition out of sport*. Many clients at this point will be leaving competitive sports for a different reasons including retirement, college or high school completion and/ or de-selection from team. While the transition has been likely anticipated for some time, emotional distress, and lack of future planning and lack of social support are still areas of concern. The goal areas will be to establish a support system outside of his or her team, establish healthy coping skills, identify new leisure activities, identify new career paths, and establish or identify applicable roles for the retiring athlete. Assessments that will be utilized are the AIMS, brief COPE, Life Roles Inventory, *Quick* DASH and COPM. These assessments will be administered during the first session to establish a baseline. Recommended activities are provided throughout this section and can be utilized together or individually. This section will also highlight the three transition phases the client may experience through when faced with an *anticipated transition out of sport* which includes the primitive response, transitional response, and the mature response.

Figure 7. Affected areas addressed in anticipated transition out of sport

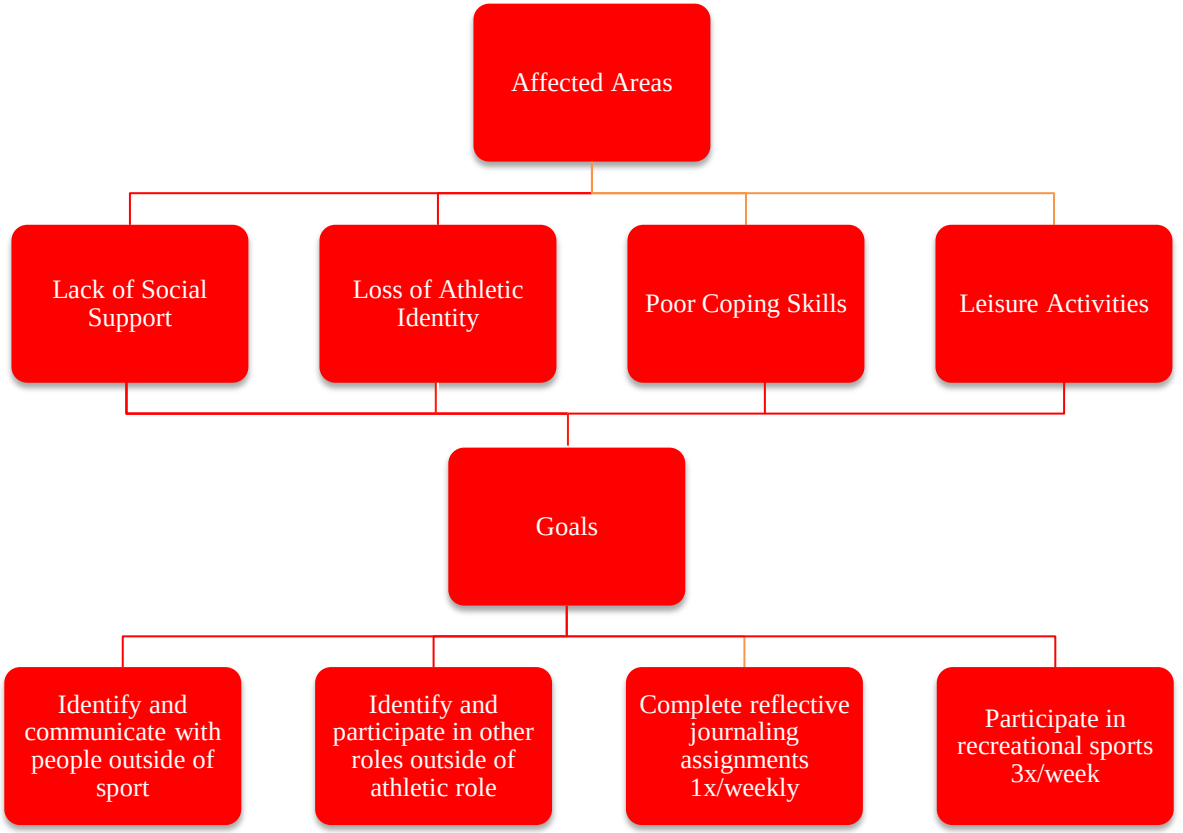


Figure 7. Illustrates the anticipated transition out of sport process of identifying affected areas, setting goals, and possible interventions to address the affected areas.

Figure 8. Examples of Primitive Responses

Figure 8. Provides examples of affected areas, client statements, and interventions for athletes in a primitive recovery stage.

I. Social support interventions

a. The purpose of social support intervention is to identify other support systems in the client's life. His or her support system of many years may no longer be available after his or her transition out of sport and it is important to identify a new support system.

i. "Who do I talk to?" worksheet

Who do I talk to?

Name:

DOB: Date:

Instructions: The Client fills out worksheet in order to gain a better understanding of who his or her current social supports and who he or she can add to his or her support system to build a stronger support structure around him or herself.

1. Who do I currently talk with the most?

2. Who do I talk with, outside of my teammate?

3. I talk to my family when…?

4. In high school I was close with…?

5. How much have I kept in touch with friends I had prior to college?

6. When I need to talk to someone I usually talk to…?

7. List the people who are there for you when you need support?

ii. Mind Mapping

- The purpose is to have the client quickly list on paper or verbally state who he or she talks with on a frequent or occasionally basis.
- The therapist can create circles on paper with the following categories:
    - Talk with frequently, Talk with occasionally, Talk with rarely, Talk when I have a problem, Talk with only when I see them, and People I care about.
- With the answers the therapist obtains from the client, he or she will be able to pose questions about the client's relationship with the people the client identified. With the information gathered the occupational therapist will be able design interventions to assist the client in identifying and contacting persons to form a support system.

iii. Activity association

- Have the client list a typical day
    - Activities could include eating, shopping, or exercising.
- When the activities have been listed, ask the client if he or she engages in these activities alone or with others. By doing this, the client will be able to identify activities he or she enjoys engaging in with others and possibly who he or she can ask to join him/her in the activity. This

will provide the client with leisure activities he or she can engage in that may help the client cope with stress/ anxiety as well as build on his or her social supports.

II. Loss of athletic identity interventions

a. The purpose is to identify other roles other than athlete the client can identify with in order for him or her to begin engaging in. This will show the client that he or she has other roles besides those of an athlete.

i. Life Roles Inventory

- Purpose of the Life Roles Inventory is to assess the importance of various roles and identities in the client's life.

III. Poor coping skills interventions

a. The purpose is to educate and establish healthy coping skills the client can engage in when dealing with stressors.

i. Administer the Brief COPE

ii. "How do you cope?" Worksheet

- The purpose of the worksheet is to understand the client's coping skills that will help the therapist later transition the client into using positive coping strategies.

iii. Introduce Reflective Journaling.

- The therapist may provide the client with a reflective journaling worksheet for client to fill out or have client journal about his or her thoughts and feelings regarding the transition process.

How Do You Cope?

Client will fill in the blanks in order to learn how to identify feelings and recognize what he or she does when experiencing them. This will allow the client to recognize negative coping strategies and begin to adjust his or her negative coping strategies into positive coping strategies.

When I'm feeling…	**I…**
Stressed Out	Eat Junk Food
Irritated	
Sad	
Very depressed	
Anxious	
Angry	
Lethargic	
Unmotivated	
Restless	
Pressured	
On edge	
Disappointed	
Guilty	
Like I want to sleep all day	
Worthless	
Other:	
Other:	

Reflective Journaling # 1

1. When I think about not playing sports I feel…..

2. Not playing competitive sports will make my life different because…..

3. I am worried that I will not know what to do with my time because…..

4. This change will be positive because…..

5. I am looking forward to…..

6. I will miss playing competitive sports because…..

IV. Leisure exploration interventions

a. The purpose is to identify leisure activities for the client to engage in.

i. Probe the client with questions about activities he engages in during his free time.

b. Complete leisure collage

- For this activity, the therapist will provide the client with magazines or pictures to create a collage. After the collage has been made, the therapist should ask the client why he or she enjoys these activities and how often he or she engages in them.
- This activity can also be modified to providing pictures and magazines for the client to select without making a collage.

Leisure Collage

Leisure collage instructions: The client finds pictures of leisure activities that he or she engages in as described by the individual boxes and pastes or tapes them into the box. The client then can describe them to the therapist or just keep them as a visual reminder of the activities he or she enjoys engaging in.

Activities I do myself	Activities I do with family	Activities I do with friends
Activities I do anytime	Activities I do outdoors	Activities I do indoors

Figure 9. Examples of Transitional Responses

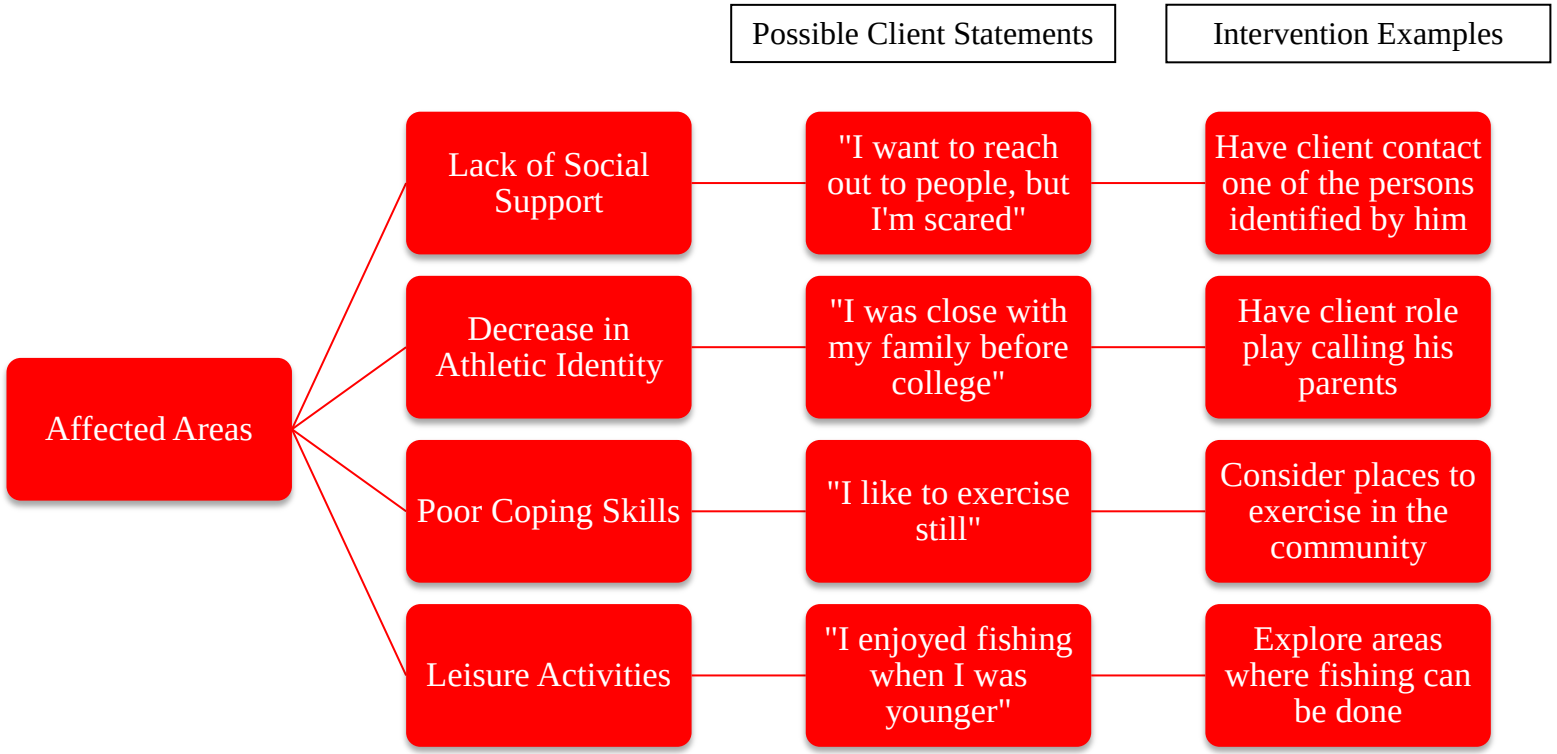


Figure 9. Provides examples of affected areas, client statements, and interventions for athletes in a transitional recovery stage.

I. Lack of social support interventions

a. The purpose is to facilitate the clients establishing of a new support system. At this point the client may be scared to reach out to others or not know how to do this. The client with the help of the therapist will contact identified support persons in order to establish and build a healthy support system.

i. Role-Play

- Through role-playing, the client will prepare to engage in conversations with people he identified as social supports. The therapist will act as the identified social support to build the client's confidence when interacting with others.
- Activity should be completed role-playing a telephone call or in person interaction.

ii. Choose three people from mind-mapping activity to call (his choice; preferably someone he feels comfortable talking with) – call all three within one week.

iii. Choose two people from mind-mapping activity to call and ask to meet with in person – schedule meeting time and place.

II. Loss of athletic identity interventions

a. The purpose is to identify with other roles to increase client's identity. Focus on roles that are meaningful to the client and identified by the Life Roles Inventory.

i. Use Life Roles Inventory to determine 3 activities/characteristics associated with each identified role.

ii. Explore alternative roles relating to sport; coach, trainer, volunteer, consultant, board member.

- Research job openings, requirements, job functions.

III. Poor coping skills interventions

a. The purpose is to build a coping skills toolbox that the client can utilize when dealing with stressors. This will facilitate the client to live a healthy life.

i. Use ‘How do you cope’ worksheet with additional column for positive coping strategies that could be used to eliminate maladaptive feelings.

ii. Have client practice coping strategies in clinic if needed (deep breathing, count-to-ten, light stretching, etc.).

iii. Reflective journaling homework assignment: one week after initial reflective journaling assignment, have client journal about scenarios where use of positive coping skills would be effective.

How Do You Cope?

Through this worksheet you will learn to identify feelings and recognize what to do when experiencing them, as well as things you can do in order to cope with those feelings in a healthy manner. Please fill in the blanks to complete the following scenarios or feelings:

When I'm Feeling…	I…	Positive Coping Strategy
Stressed Out	Eat Junk Food	Exercise
Irritated		
Sad		
Depressed		
Anxious		
Angry		
Lethargic		
Unmotivated		
Restless		
Pressured		
On Edge		
Disappointed		
Guilty		
Sleeping All Day		
Worthless		
Other:		
Other:		
Other:		
Other:		

Reflective Journaling #2

1. Identify one time you were in a situation that you perceived as stressful and needed to utilize coping strategies, describe the scenario you were in?

2. What coping strategies did you use?

3. If you did not use any coping strategies, why?

4. Did the coping strategy you selected work? Why? Why not?

5. Could you have used a coping strategy?

6. How could things have been different if you would have used a coping strategy

7. What might you do differently next time?

IV. Leisure interventions

a. The purpose is to identify leisure activities for the client to engage in.

i. Have the client identify occupations he or she enjoyed when they were younger. An example of this is the client enjoyed fishing when he or she was younger; explore reasons barriers that are keeping him/her from engaging in the occupations. Collaborate with client in order to identify how he or she can overcome barriers in order to restore the meaningful occupation. Example would where fishing can be done in the area, what equipment would be needed, transportation, etc….

ii. Leisure Bingo

- Create board with leisure activities identified from leisure collage.
- Play with therapist or invite person of choice into therapy to play with him or her.

iii. Would you rather…?

- Have client complete it and determine if he or she would rather do activity alone or with someone else.

iv. Research places in the community where the client could engage in desired leisure activities – internet/phonebook search, trip around town with therapist, etc.

Bingo instructions: Have the client place activities he/ she enjoys in the empty boxes. Cut up the list below and draw one out at a time and play "BINGO" with the client's individualized Bingo cards.

B	I	N	G	O
		FREE SPACE		

Examples of activities

Archery	Boxing	Darts
Hacky Sack	Music (instruments)	Snow-shoeing
Arts and Crafts	Canoeing	Downhill Skiing
Hockey	Painting	Soccer
Basketball	Carpentry	Fencing
Horseback Riding	Playing Pool	Softball
Badminton	Cleaning	Fishing
Hunting	Racquetball	Swimming
Beadwork	Croquet	Football
Ice Skating	Rock Climbing	Table tennis (ping pong)
Biking	Cross-Country Skiing	Frisbee
Kayaking	Running	Tae Kwon Doe
Bird Watching	Curling	Gardening
Kickboxing	Skateboarding	Tennis
Bowling	Gymnastics	Golf
Lacrosse	Walking	Volleyball

Instruction: Have the client go through and circle the activities he or she enjoys doing or would like to start engaging in in order to develop a list of leisure activities he or she can turn to for ideas.

Would You Rather…

Build a Bird House	Color	Decorate House
Hike	Paint	Snowboard
Get coffee	Watch a movie	Tube
Bike ride	Play video games	Soccer
Rollerblade	Eat Food	Camp
Canoe	Make food	Cribbage
Waterski	Go on A Run	Organize
Snow-shoe	Yoga	Paper maché
Downhill ski	Scrapbook	Snorkel
Cross country ski	Bike Ride	Build snowmen
Going to a movie	Rock Climb	Go to a concert
Go to library	Fishing	Play Pool
Museums	Surf the internet	Play Darts
Dance	Lift weights	Make greeting cards
Going out to eat	Shop	Clean
Write a story	Go for a walk	Hockey
Write poetry	Bake	Game Night

Read	Garden	Go to Church
Sing	Fly a kite	Frisbee Golf
Go bowling	Volunteer	Play Catch
People watch	Attend a Play	Slow Pitch Softball
Have a picnic	Visit a Zoo	Swim
Take pictures	Play Cards	Pilates
Build Model Cars	Scrapbook	Ceramics
Play Tennis	Karate	Role Play
Skate	Knit	Skateboard
Hunt	Quilt	Kayak
Talk on Phone	Get a massage	Board Games
Golf	Sky Dive	Frisbee
Box	Road trip	Hot Air Balloon

Figure 10. Examples of Mature Responses

Figure 10. Provides examples of affected areas, client statements, and interventions for athletes in a mature recovery stage.

I. Lack of social support interventions

a. The purpose is for the client to start feeling confident and want to contact and interact with social supports.

i. Contact two social supports and set up times to meet and engage in leisure activities with.

ii. Contact two social supports to talk to via telephone or in-person.

II. Loss of athletic identity interventions

a. The purpose is to find roles both in and out of sport balancing time in all newly identified roles with old roles.

i. Review findings (job openings, requirements, job functions, client's interest) from exploring alternative roles relating to sport; coach, trainer, volunteer, consultant, board member.

ii. Review characteristics of identified roles and find activities that relate to those roles.

- Playing basketball with friends
- Spending time with family
- Fishing with social supports
- Coaching sports

iii. Implement role changes by engaging in different roles daily.

III. Poor coping skills interventions

a. The purpose is to develop coping skills that are effective for the client to utilize during stressful situations. Ensuring the client understands how and when to use them.

i. Provide the client with a stressful situation and have the client demonstrate the positive coping strategy.

ii. Have client determine when and how often he will engage in reflective journaling.

iii. Have the client demonstrate and explain the most helpful positive coping strategies.

IV. Leisure interventions

a. The purpose is to keep the client involved in enjoyable activities. Following a career of high intense activity it is important for the client to stay active in order to maintain a healthy life.

i. Have the client select three community activities that he could engage in either alone or with others.

- After engaging in the activity encourage the client journal about what he enjoyed about the activity or did not enjoy.
- Collaborate with the client determine if the activity is something that the client should continue to engage in.

Unanticipated Transition Out of Sport

Unanticipated Transition out of Sport

The focus of this section is to guide the athletes through the unanticipated transition out of sport. This section will focus mainly on the elite athlete whose career has primarily been sports competition. However when working with a wide variety of athletes such as collegiate and high school athletes it is important to understand that the emotional reaction may still be similar. Assessments that will be utilized will be the AIMS, Brief COPE, Life Roles Inventory, *Quick* DASH and the COPM. These assessments will be administered during the first session to establish a baseline. Recommended activities are provided throughout this section and can be utilized together or individually. This section will also highlight the three transition phases the client may experience through when faced with an *unanticipated transition out of sport* which includes the primitive response, transitional response, and the mature response.

Figure 11. Affected areas addressed in unanticipated transition out of sport

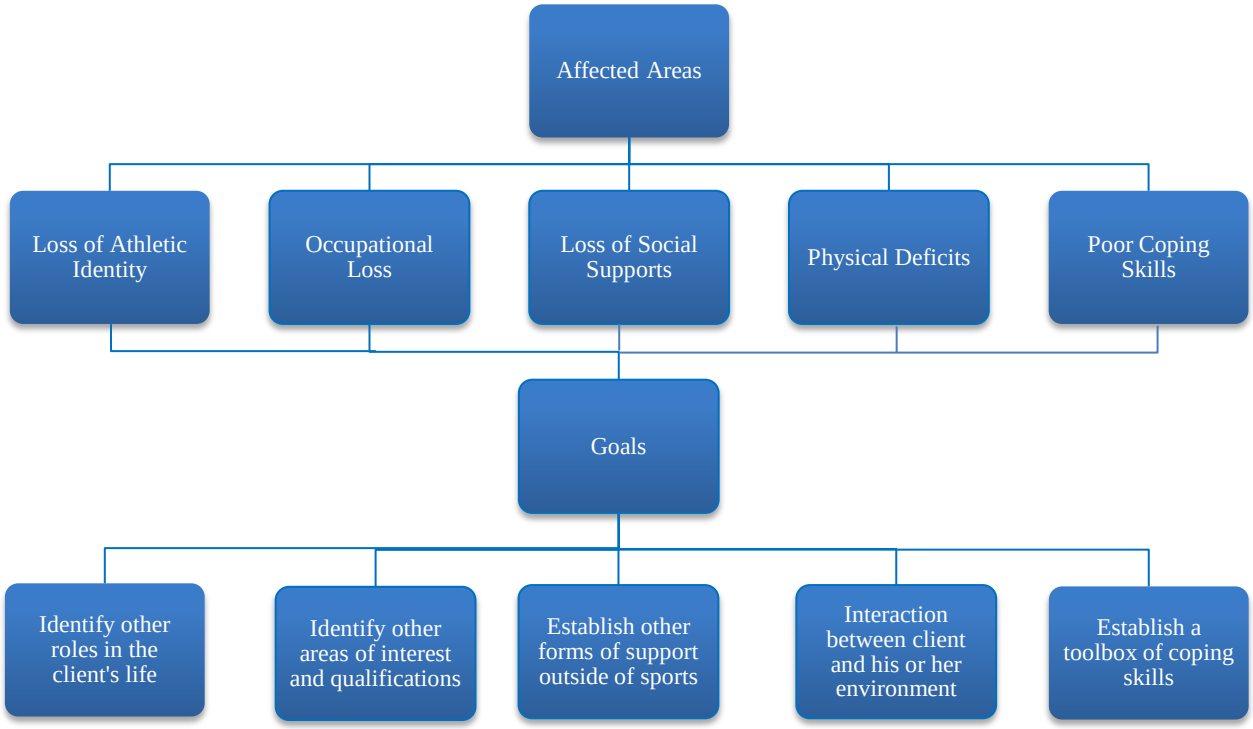


Figure 11. Illustrates the unanticipated transition out of sport process of identifying affected areas, setting goals, and possible interventions to address the affected areas.

Figure 12. Examples of Primitive Responses

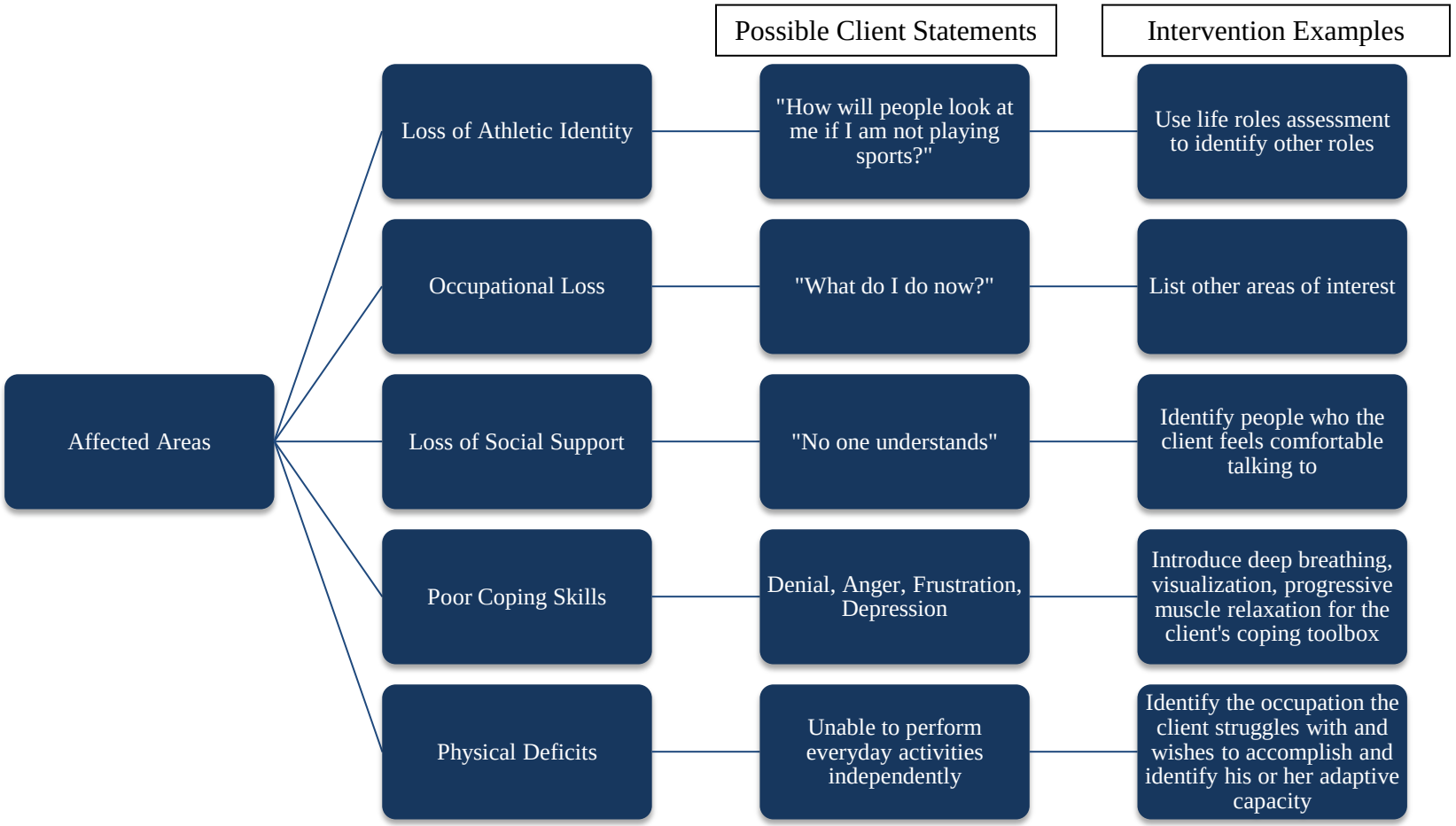


Figure 12. Provides examples of affected areas, client statements, and interventions for athletes in a primitive recovery stage.

I. Loss of athletic identity interventions

a. The purpose is to identify, establish and renew old roles the client can relate to in order for he or she to broaden his or her identity.

i. Life Roles Inventory

- Purpose of the Life Roles Inventory is to assess the importance of various roles and identities in the client's life.
- Identify those meaningful roles through the life role inventory listing them out for the client to see.

ii. Administer the AIMS.

II. Occupational loss interventions

a. The purpose is to find other occupations the client enjoys engaging in. For elite athletes, the occupation of sport has been a career since he or she was a small child. Sports have taken up majority of the client's time and new occupations and in some cases new career must fill in the place competitive sport once did.

i. List five activities the client enjoys doing outside of engaging in competitive sports:

1.

2.

3.

4.

5.

ii. In between sessions have the client engage in these activities and answer the following questions in a reflection journal:

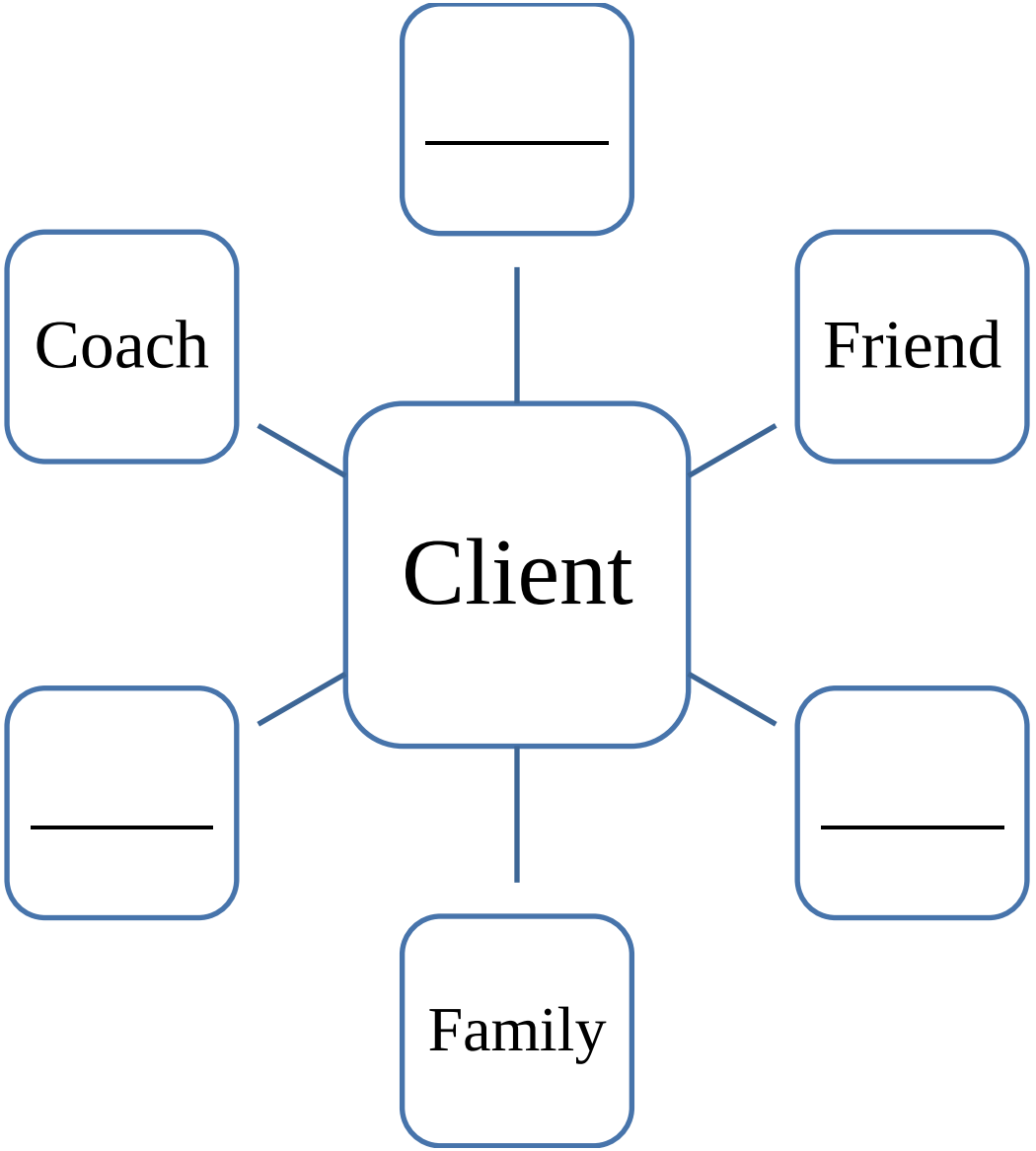
1. What about this activity do I enjoy doing?
2. What about this activity do I dislike?
3. How does this activity make me feel about myself?
4. How is this activity affecting others around me?
5. How is this activity positively affecting me?

III. Loss of social support interventions

a. The purpose is to educate client on importance of having social supports (as well as to establish new support systems) to take place of his or her support system that may be lost during the transition.

i. Have the client map out his or her support system allowing the client to visualize his or her social support system as shown in figure 12.

Figure 13. Client Support Map



IV. Poor coping skills interventions

a. The purpose is to teach the client about negative and positive coping strategies that he or she can utilize outside the clinic.

i. Brief COPE is an assessment designed to measure how and individual copes with stress.

ii. Development of a coping tool box.

1. <u>Progressive muscle relaxation techniques (www.helpguide.org)</u>

- Find a quiet secluded place
- Loosen up your clothing and make yourself comfortable
- Start with deep breathing technique to relax
- Focus on your attention on how your right foot feels, gradually tense up the muscles in your right foot and hold it for a count of ten seconds and relax
- Feel the tension leave your foot and continue the deep breathing techniques
- Next move to your left foot and repeat the steps
- Work your way up your legs through your torso to your arms and finish with your head
- Move slowly not to rush the process hitting all your muscle groups
- Suggested routine:

1. Right foot
2. Left Foot
3. Right calf
4. Left calf
5. Right thigh
6. Left thigh
7. Gluts
8. Stomach
9. Chest
10. Back
11. Right Limb
12. Left Limb
13. Neck & Shoulder
14. Head

2.Deep breathing exercise (www.helpguide.org)

- Breathe in slowly, counting to five
- Hold your breath for a two seconds
- Breathe out slowly, counting to five
- Repeat until you feel relaxed

3. Visualization/ Meditation

- Find a quiet place
- Close your eyes and take deep slow breaths
- Imagine yourself in a calm place or doing something that makes you happy

V. Physical deficits interventions

a. The purpose is to educate the client on his or her diagnosis and prognosis of his or her injury.

b. For therapist addressing the physical injury of the athlete, evaluations and interventions should progress as indicated by the client's diagnosis and as directed by a physician. The *Quick* DASH should be administered to gain an understanding of the client's perceptions of his or her functional ability.

i. *Quick* Dash assessment is a questionnaire designed to ask about symptoms and also find out one's ability to perform certain activities.

ii. List 3-5 activities identified as problem areas for this client.

1.

2.

3.

4.

5.

iii. Identify meaningful activities that the client would like to engage in.

1.

2.

3.

4.

5.

iv. Set short term goals for each activity that is within his or her adaptive capacity.

Goal 1-

Goal 2-

Goal 3-

Goal 4-

Goal 5-

Figure 14. Examples of Transitional Responses

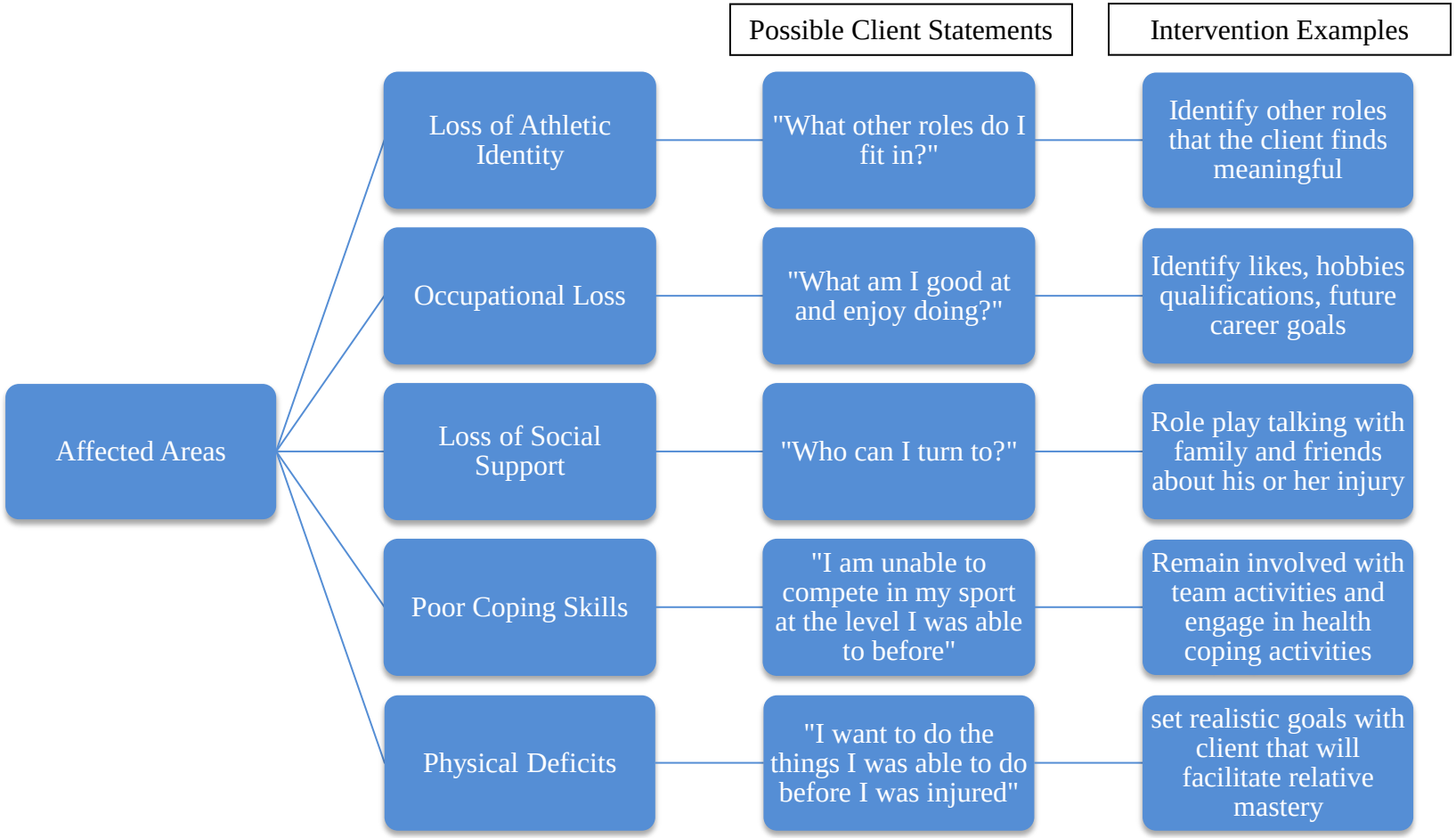


Figure 14. Provides examples of affected areas, client statements, and interventions for athletes in a mature transitional stage.

I. Loss of athletic identity interventions

a. The purpose is to identify with other roles to increase client's identity. Focus on roles that are meaningful to the client and identified by the Life Roles Inventory.

i. Focus on roles that are meaningful to the client and identified by the Life Roles Inventory.

- Use Life Roles Inventory to determine 3 activities/characteristics associated with each identified role.
- Explore alternative roles relating to sport; coach, trainer, volunteer, consultant, board member.
- Research job openings, requirements, job functions.

II. Occupational loss interventions

a. The purpose is to identify occupations that the client enjoys to fill the spot of his or her sport. By doing so it may facilitate a new career for a college athlete or a new hobby for an elite athlete whose professional career has come to an end.

ii. Utilize the journal activity and through discussion:

- Discuss with the activities the client identifies as enjoyable and why?
- Hobbies the client engages in outside of sports.

- If applicable, other school activities the client enjoys.
- Areas of sport besides the competitive aspect the client finds enjoyable.
- New possible career paths and qualifications.

b. Assign new journal activity aimed at the client exploring these areas of expressed interest answering questions such as:

- What do I need to do in order to get myself involved in this activity?
- How will this activity help me and what about it do I enjoy?
- How will this keep me involved in sports?
- How is this activity going to benefit me in the future?
- What is the outlook in this area for a possible future career?

III. Loss of social support interventions

a. The purpose is to build the clients confidence in approaching other possible support system and reaching out to others within this system.

i. After the client identifies his or her support system role play with client bringing up topics of stress.

ii. Examples of how to start conversations with a person in his or her support system:

- "I feel like I let my team down because….."

- "I don't know who I am without sports because….."
- "If I am unable to compete I feel..…"
- "Playing sports made me feel….. without that I feel….."
- "I am afraid of disappointing my family because….."
- "No one understands what I am going through, I feel….."

IV. Poor coping skills interventions

a. The purpose is to build a coping skills toolbox that the client can utilize when dealing with stressors. This will facilitate the client to live a healthy life.

iii. Contact the coach and teammates and identify team activities that the client is able to remain a part of. Example of these activities are:

- Attend competitions with the team.
- Attend practices and take on a helpful/coaching role.
- Attend team meetings and social gatherings.

i. Identify and engage in healthy coping strategies:

- Develop and engage in a workout routine.

- Healthy eating habits.
- Read a book.
- Social events with friends.
- Intermural sports.
- Go for a walk or jog.

V. Physical deficits interventions

a. The purpose is to educate the client on his or her diagnosis and prognosis of his or her injury.

b. For therapist addressing the physical injury of the athlete, evaluations and interventions should progress as indicated by the client's diagnosis. The *Quick* DASH should be administered to gain an understanding of the client's perceptions of his or her functional ability.

   i. Assess short term goals allowing client to identify his or her progress

   ii. Discuss and set realistic and achievable goals based on the clients progress by choosing 3-5 activities to focus on between sessions:

Figure 15. Examples of Mature Responses

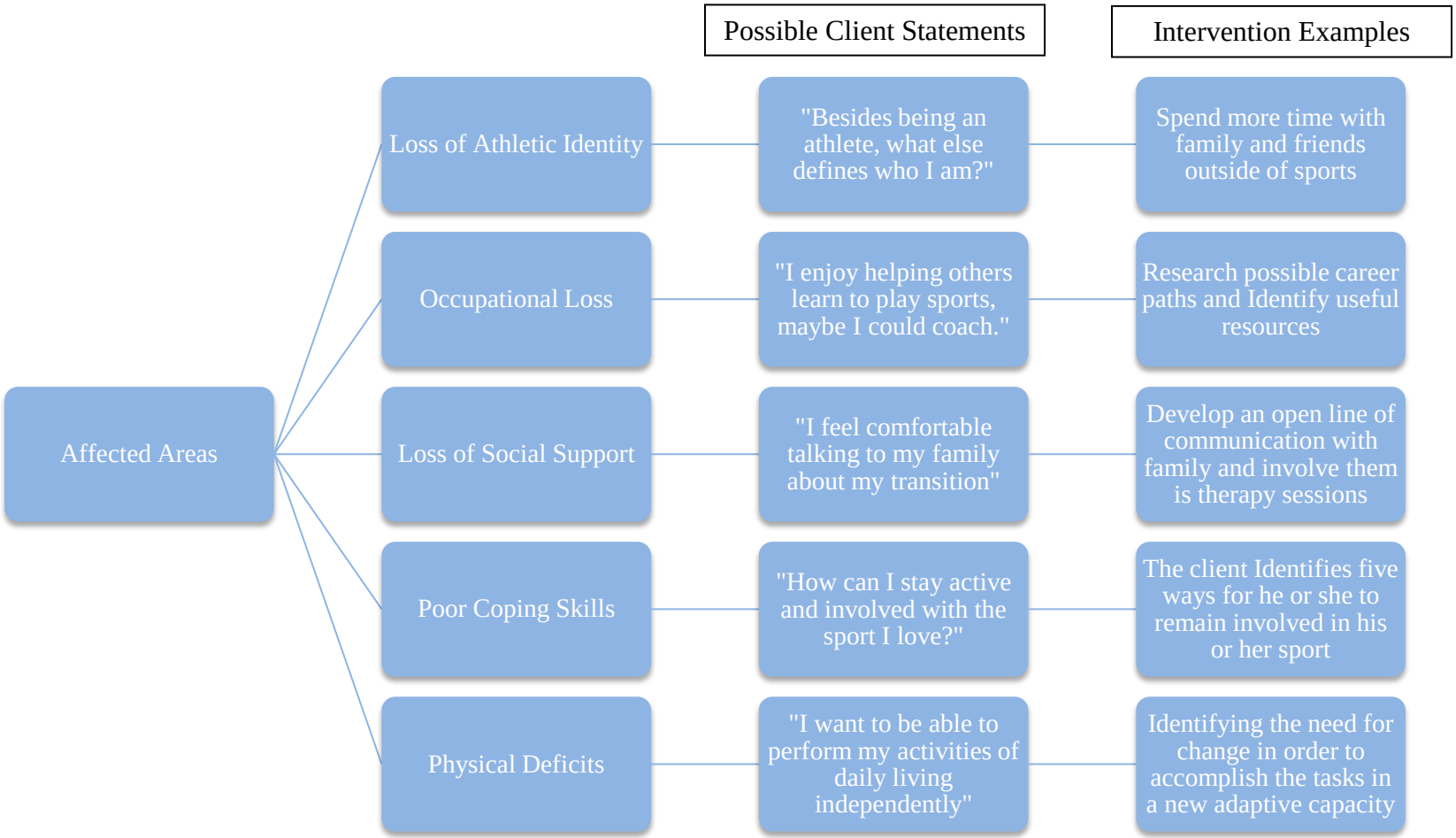


Figure 15. Provides examples of affected areas, client statements, and interventions for athletes in a mature recovery stage.

I. Loss of athletic identity interventions

a. The purpose of balancing time between roles is so the client does not only identify with the one role, instead he or she develops other roles that define him or her and contribute to his or her identity.

i. Identify and plan activities to engage in with family or friends outside of sports in order to develop an identity outside of sports.

ii. Review characteristics of identified roles and find activities that relate to role.

- Playing basketball with friends
- Spending time with family
- Fishing with social supports
- Coaching sports

iii. Implement role changes by engaging in different roles daily.

II. Occupational loss interventions

a. The purpose is to get client involved in new hobbies, career and leisure activities to take the place of his or her sport.

i. Review findings (job openings, requirements, job functions, client's interest) from exploring alternative roles relating to sport; coach, trainer, volunteer, consultant, and board member.

ii. Explore resources online and through local centers (e.g. work force center).

iii. Explore and provide resources on local community events involving activities the client identified as being meaningful.

III. Loss of social support interventions

a. The purpose is for the client to start feeling confident and want to contact and interact with social supports.

i. Have client develop an open line of communication with chosen individuals of his or her support system utilizing techniques practiced during role playing activities.

ii. Invite chosen individuals to sessions if client is comfortable or have him or her chose a comfortable environment and establish the open line of communication.

IV. Poor coping skills interventions

a. The purpose is to develop coping skills that are effective for the client to utilize during stressful situations. Ensuring the client understands how and when to use them.

i. Identify 3-5 ways client can remain involved in sports through different activities and positions.

- e.g. coach, volunteer, intermural, administration position, possible careers

ii. Provide the client with a stressful situation and have the client demonstrate the positive coping strategy.

iii. Have the client demonstrate and explain the most helpful positive coping strategies.

V. Physical deficits interventions

a. The purpose is to educate the client on his or her diagnosis and prognosis of his or her injury.

b. For the therapist addressing the physical injury of the athlete, evaluations and interventions should progress as indicated by the client's diagnosis. The *Quick* DASH should be administered to gain an understanding of the client's perceptions of his or her functional ability.

Figure 16. Unanticipated Transition Out of Sport Process

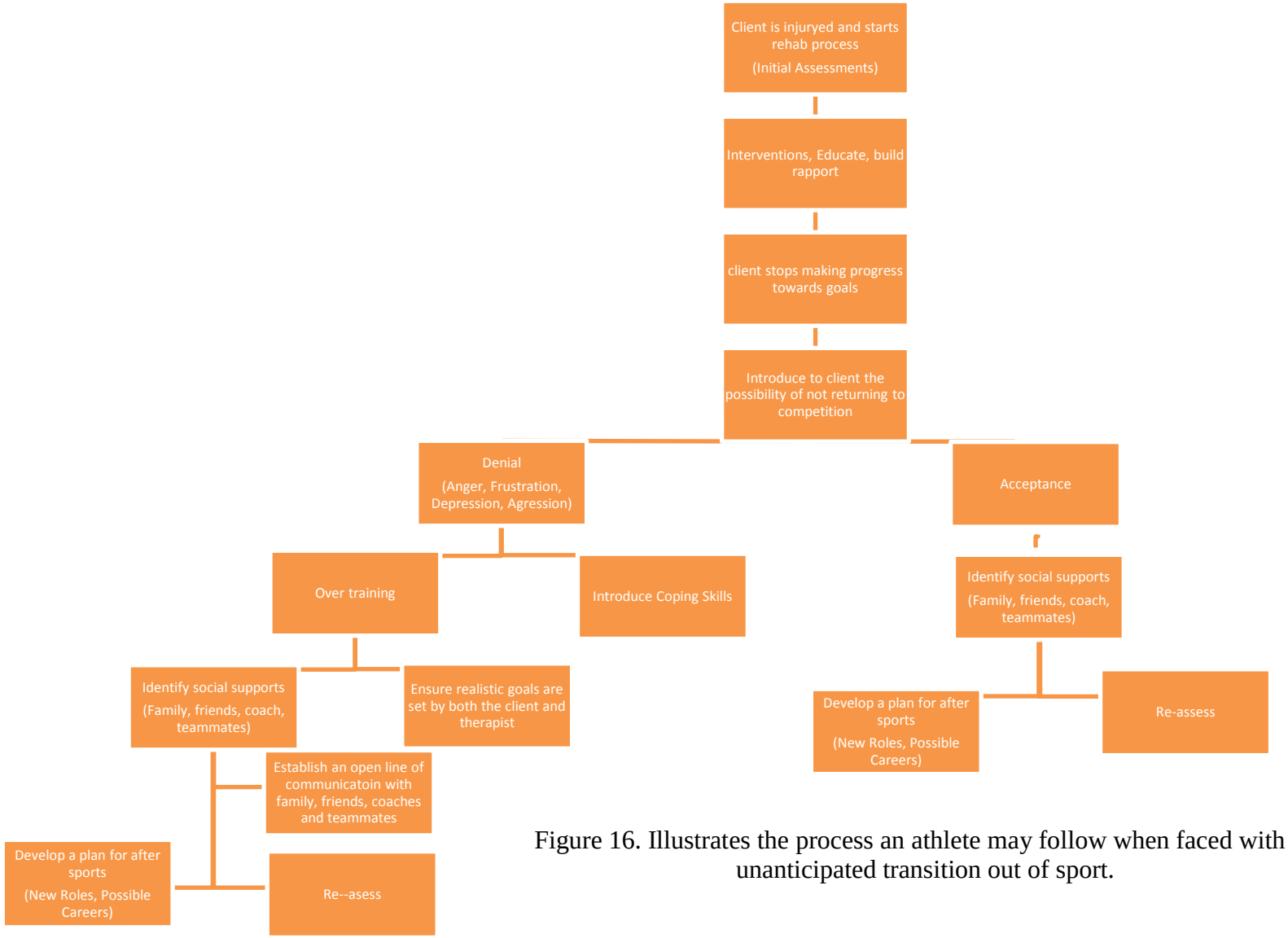


Figure 16. Illustrates the process an athlete may follow when faced with an unanticipated transition out of sport.

Appendix

The authors received permission via email to use and reproduce the Life Roles Inventory, Athletic Identify Measurement Scale (AIMS), and the Brief COPE. The authors have provided the emails prior to the reference page in which the permission to use the assessments was requesting as well as the follow up emails granting permission for these assessments to be used in this program. The Canadian Occupational Performance Measure (COPM) and the *Quick* DASH are copyrighted documents and could not be duplicated for the purpose of this program. However the authors have provided information on where each of these assessments can be located and purchased and /or downloaded for professional use.

The Canadian Occupational Performance Measure (COPM) can be purchased for use through the Canadian Association of Occupational Therapists web page (www.caot.ca) at the online store under the workbooks section for $41.75.

The *Quick* DASH is copyrighted by Institute for Work & Health and can be found retrieved from http://www.dash.iwh.on.ca/ it may be printed without charge but is limited to, a clinician using it only for treatment or assessment of a patient or a researcher using it only for non-commercially related research. Other conditions of use can be located at http://www.dash.iwh.on.ca/conditions-use please contact them if you wish to use it in any other manner.

Brief COPE

These items deal with ways you've been coping with the stress in your life since you found out you were going to have to have this operation. There are many ways to try to deal with problems. These items ask what you've been doing to cope with this one. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with it. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

1 = I haven't been doing this at all
2 = I've been doing this a little bit
3 = I've been doing this a medium amount
4 = I've been doing this a lot

1. I've been turning to work or other activities to take my mind off things.
2. I've been concentrating my efforts on doing something about the situation I'm in. 3. I've been saying to myself "this isn't real.".
4. I've been using alcohol or other drugs to make myself feel better.
5. I've been getting emotional support from others.
6. I've been giving up trying to deal with it.
7. I've been taking action to try to make the situation better.
8. I've been refusing to believe that it has happened.
9. I've been saying things to let my unpleasant feelings escape.
10. I've been getting help and advice from other people.
11. I've been using alcohol or other drugs to help me get through it.
12. I've been trying to see it in a different light, to make it seem more positive.
13. I've been criticizing myself.
14. I've been trying to come up with a strategy about what to do.
15. I've been getting comfort and understanding from someone.
16. I've been giving up the attempt to cope.

17. I've been looking for something good in what is happening.
18. I've been making jokes about it.
19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.
20. I've been accepting the reality of the fact that it has happened.
21. I've been expressing my negative feelings.
22. I've been trying to find comfort in my religion or spiritual beliefs.
23. I've been trying to get advice or help from other people about what to do.
24. I've been learning to live with it.
25. I've been thinking hard about what steps to take.
26. I've been blaming myself for things that happened.
27. I've been praying or meditating.
28. I've been making fun of the situation.

Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine*, 4, 92-100.

LIFE ROLES INVENTORY

The following items are intended to assess the importance of various roles and identities in your life. All of us fulfill a number of different roles. The seven listed below are seen as important by the majority of individuals. Please think about yourself in each of these roles and respond to the items that follow as accurately as possible.

Family Role: yourself as a son or daughter
Academic Role: yourself as a student
Romantic Partner Role: yourself as a girlfriend or boyfriend
Friendship Role: yourself as an friend, companion, confidante, etc.
Athletic Role: yourself as an athlete
Spiritual Role: the role of spiritual development in your life
Extracurricular Role: aspects of yourself not covered by other life roles listed (e.g., hobbies, clubs, volunteers)

For each of the following items, please indicate which of the pair of roles is more important to the way you think about yourself. You are not being asked which is "**most**" important, only which of the two roles is "**more**" important to how you think of yourself.
For each of the pairs of roles that follow, check the line next to the role that is **more** important to the way you think of yourself.

1. _____ Academic _____Athletic/Exercise	2. _____ Academic _____ Extracurricular	3. _____ Academic _____ Family
4. _____ Academic _____ Friendship	5. _____ Academic _____ Romantic Partner	6. _____ Academic _____ Spiritual
7. _____ Athletic/Exercise _____ Extracurricular	8. _____ Athletic/Exercise _____ Family	9. _____Friendship _____Family
10. _____ Athletic/Exercise _____Romantic Partner	11. _____Athletic/Exercise _____Friendship	12. _____Extracurricular _____ Family
13. _____ Athletic/Exercise _____ Spiritual	14. _____ Extracurricular _____Romantic Partner	15. _____ Extracurricular _____ Friendship
16. _____ Extracurricular _____ Spiritual	17. _____ Family _____Romantic Partner	18. _____Family _____Spiritual
19. _____Friendship _____Romantic Partner	20. _____ Romantic Partner _____Spiritual	21. _____ Spiritual _____Friendship

Griffith K.A., Johnson, K.,A., & Taylor, M. (2002). Athletic identity and life roles of division I and III collegiate athletes. Retrieved from http://murphylibrary.uwlax.edu/digital/jur/2002/griffith-johnson.pdf.

7-Item Version of the Athletic Identity Measurement Scale (AIMS)

Please circle the number that best reflects the extent to which you agree or disagree with each statement regarding your sport participation.

1. I consider myself an athlete.
   Strongly disagree 1 2 3 4 5 6 7 Strongly agree

2. I have many goals related to sport.
   Strongly disagree 1 2 3 4 5 6 7 Strongly agree

3. Most of my friends are athletes.
   Strongly disagree 1 2 3 4 5 6 7 Strongly agree

4. Sport is the most important part of my life.
   Strongly disagree 1 2 3 4 5 6 7 Strongly agree

5. I spend more time thinking about sport than anything else.
   Strongly disagree 1 2 3 4 5 6 7 Strongly agree

6. I feel bad about myself when I do poorly in sport.
   Strongly disagree 1 2 3 4 5 6 7 Strongly agree

7. I would be very depressed if I were injured and could not compete in sport.
   Strongly disagree 1 2 3 4 5 6 7 Strongly agree

Brewer, B. W., & Cornelius, A. E. (2001). Norms and factorial invariance of the Athletic Identity Measurement Scale. *Academic Athletic Journal, 15,* 103-113.

Permission email to use the Life Roles Inventory

Hi Steven,

I would say just go ahead and use it and cite Katie and Kris' paper. I am not sure where they've settled after all these years, so the citation in good faith should suffice in my mind. I would love to see what you find when it's all done.

Best,

taylor

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"Only from the vantage point of the West is it possible to define the 'third world' as (culturally) underdeveloped. Without the overdetermined discourse that creates the third world, there would be no (singular and privileged) first world."

Chandra Talpade Mohanty

-----Original Message-----
From: Steven Huft [mailto:shuft@medicine.nodak.edu]
Sent: Wednesday, May 16, 2012 8:31 PM
To: Taylor, Matthew
Subject: Following up on Life Roles Inventory

Hello Dr. Taylor,

I previously emailed you about the Life Roles Inventory about a month ago. I read the articles that you suggested where the authors of the article,"Athletic Identity and Life Roles of Division I and Division III Collegiate Athletes" might have created their assessment from some of Stryker's work. However, upon reviewing Stryker's work his assessment does not fit my project. I was wondering if you could grant me permission to use the Life Roles Inventory, or give me information to contact the authors of the article to seek permission from them. I would greatly appreciate it. If granted permission the Life Roles Inventory assessment would be duplicated for use when treating athletes, and printed in a copy of my final project that will go in the Harley French Library of Health Sciences on The University of North Dakota campus in Grand Forks, ND. Hope to hear back from you.
Thanks for your time.

Respectfully,

Steven Huft, MOTS
University of North Dakota
School of Medicine and Health Sciences
Department of Occupational Therapy

Permission Email to use the AIMS

Hello, Steven! Thank you for your interest in our research. You may certainly use the AIMS in the manner you specified. Please find attached a copy of the latest version of the scale. Here is the reference for the updated version:

Brewer, B. W., & Cornelius, A. E. (2001). Norms and factorial invariance of the Athletic Identity Measurement Scale. *Academic Athletic Journal, 15*, 103-113.

I would be grateful if you would inform me of the results of your project when they are available, as the topic sounds very interesting. Thanks again and best wishes, Britt

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*Please note new email address above.

On Tue, Apr 17, 2012 at 11:47 AM, Steven Huft <shuft@medicine.nodak.edu> wrote:

Hello Dr. Brewer,

My name is Steven Huft. I am a third year Occupational Therapy student at the University of North Dakota. As a part of our Master's Degree curriculum, we have to complete a scholarly project. My project is entitled, "Role Transitioning for Athletes Coping with Injury and Occupational Loss". I am creating a manual that will assist Occupational Therapists treat athletes. In the manual I will have

a battery of assessments to use that will help identify areas where athletes need treatment. I would like to use the Athletic Identity Measurement Scale (AIMS) as a part of my project. I would like to include it in my manual, be able to reproduce the assessment, and included it in a final copy of my project that will be binded and stored in the University of North Dakota's Harley French Medical Science Library. I look forward to hearing from you.

Respectfully,

Steven Huft, MOTS
University of North Dakota
School of Medicine and Health Sciences
Department of Occupational Therapy

Permission email to use the Brief COPE

I apologize for this automated reply. All measures I have developed are available for research and teaching applications without charge and without need to request permission; we ask only that you cite their source in any report that results. If you wish to use a measure for a purpose other than that, you must also contact the copyright holder, the publisher of the journal in which the measure was published.
Information concerning the measure you are asking about can be found at the website below. I think most of your questions will be answered there. If questions remain, however, do not hesitate to contact me. Good luck in your work.
http://www.psy.miami.edu/faculty/ccarver/CCscales.html
On Mar 8, 2012, at 11:59 AM, "Steven Huft" <shuft@medicine.nodak.edu> wrote:

Dear Dr. Carter,
My name is Steven Huft. I am in graduate school at the University of North Dakota enrolled in the Master's of Occupational Therapy program. I am currently working on a scholarly project that is advocating for the Occupational Therapy profession to be involved with sports medicine. Based on my research I have found that there are many psychological factors athletes deal with encountering injury and role transitioning. I would like to use your Brief COPE as an assessment for my project. I was wondering if you would grant me copyright access to use it for my study. I would like to make four copies of the assessment. Three of the Brief COPE's will be used for my access, my scholarly project partners access, and my advisors access. The fourth and final copy would be in my scholarly project final copy that will be in the Harley French Medical School Library on campus in Grand Forks, ND.

Respectfully,
Steven Huft, MOTS

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