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"Bouncing Back" From Adversity: Athletes' Experiences of Resilience

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The purpose of this study was to explore athletes' perceptions and experiences of resilience. Ten high-level athletes were interviewed regarding the most difficult adversities that they had ever had to overcome in sport. Richardson and colleagues' (Richardson, Neiger, Jensen, & Kumpfer, 1990) resiliency model served as a guiding theoretical framework in the process of data collection and analysis. Inductive analysis (Patton, 2002; Thomas, 2006) was used to explore the data for key themes and patterns of relationships. Five general dimensions emerged that described the resilience experience of the athletes. These dimensions include breadth and duration, agitation, sociocultural influences, personal resources, and positive outcomes. A conceptual model of the resilience process as experienced by the athletes in this study is presented as a preliminary framework for future studies of resilience in sport.

The terms *resilient*, *resilience*, and *resiliency* are often used by coaches and the media to describe favorable responses of athletes or teams to incidents such as catastrophic injuries, prolonged slumps, or the dreaded occurrence of "choking." Resilience literally refers to the ability of a substance to recoil, spring back, or resume its original shape after bending, stretching, or compressing (Strumpfer, 1999). When applied to humans, the definition of resilience has been highly variable depending on both the researcher and the population in question. Despite the numerous definitions of the term, and the alternative conceptualizations of resilience as a trait, an outcome, or a process, the common premise behind resilience is that it describes positive adaptation despite the presence of risk or adversity (Luthar & Cicchetti, 2000; Masten, 1994).

Sport psychology researchers have spent considerable time studying what Richardson (2002) calls *first wave* resiliency. First wave resiliency is the study of the internal and external qualities of individuals related to positive outcomes despite the presence of risk or adversity. Using effective coping strategies (Thelwell, Weston, & Greenless, 2007), displaying mental toughness (Bull, Shambrook, & James,

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2005), and having appropriate social support (Rees & Hardy, 2000) are examples of important first wave qualities for athletes. Athletes who choose effective coping strategies are likely to be successful in alleviating negative emotions associated with stress in sport (Anshel & Kaissidis, 1997; Kim & Duda, 2003). The correct type and timing of social support buffers the effect of stress, and aids in the well-being and performance of athletes (Bianco & Eklund, 2001; Rees, Hardy, & Freeman, 2007). Mental toughness is a concept that captures the personal and behavioral characteristics of top sport performers. Based on focus groups and interviews with elite athletes, coaches, and sport psychologists, Jones, Hanton, and Connaughton (2007) proposed a framework for mental toughness in athletes. According to their framework, mentally tough athletes posses an attitude characterized by an intense self-belief and focus, train effectively by using long-term goals, controlling the environment, and pushing themselves, compete effectively by handling pressure and having self-belief, and successfully handle both failure and success (Jones et al., 2007). Most sport psychology research on concepts such as coping, social support, and mental toughness has focused on the sport performance implications of these concepts. Despite an increased focus on the personal development of athletes, no studies have gone beyond a focus on performance predictors to identify the qualities of athletes that predict social and personal success (Miller & Kerr, 2002; Richardson, 2002).

Richardson (2002) suggests that resilience researchers move past the mere identification of resilient qualities, and toward a study of how such qualities are acquired. Some sport psychologists have recognized sport as a site for the development of resilient qualities. Danish and colleagues (Danish, Petitpas, & Hale, 1993) described an educational-developmental model of sport psychology practice, in which critical events such as injury and transition are not seen as problems, but as opportunities for athletes' growth and development both in and outside of sport. A focus on the importance of change and adversity for the personal development of athletes is consistent with the second wave of resiliency inquiry, which is the focus of this study.

Second Wave Resiliency

The second wave of resiliency inquiry is the study of how individuals acquire qualities that allow them to successfully adapt to adverse circumstances (Richardson, 2002). Lepore and Revenson's (2006) multidimensional conceptualization of resilience is useful for understanding the second wave. According to their conceptualization, resilience consists of three dimensions: resistance, recovery, and reconfiguration. Resistance refers to being undisturbed by adversity, while recovery refers to being disturbed by adversity but eventually returning to prestress levels of functioning. Reconfiguration refers to being disturbed and not simply returning to prestress levels of functioning, but adopting a new worldview because of adversity. The new worldview may be either more or less adaptive than the previous worldview.

Researchers in psychology have recently begun studying adaptive reconfiguration following adversity (see Calhoun & Tedeschi, 2006). Countless studies of survivors of horrific circumstances and events such as HIV/AIDS (Milam, 2006),

cancer (Thornton & Perez, 2006), the Holocaust (Lev-Wiesel & Amir, 2003), war (Powell, Rosner, & Butullo, 2003), and the terrorist attacks of 9/11 (Butler, Blasey, Garlan, McCaslin, Azarow, Chen, et al., 2005) show that many individuals not only survive, but gain positive attributes because of adversity. Flach (1988, 1997) suggests that experiences of adversity serve to strengthen resilient qualities such as self-esteem and self-efficacy through a law of disruption and reintegration. Richardson and colleagues' (Richardson, Neiger, Jensen, & Kumpfer, 1990) expanded Flach's conception into a model illustrating the "voyage" individuals take from the point of adversity to the acquisition of resilient qualities (see Figure 1).

The Resiliency Model

The process of obtaining resilient qualities begins at a point in time when individuals are in a state of biopsychospiritual homeostasis, or a comfort zone in which one has adapted physically, mentally, and spiritually to a set of good or bad circumstances (Richardson et al., 1990). Individuals are frequently attacked by stressors and adverse events that knock them out of their comfort zone. Disruption will occur if they lack sufficient protective factors (i.e., resilient qualities such as self-efficacy, self-esteem, problem solving ability) to buffer them from a given adverse event.

Once disruption from homeostasis occurs, individuals must return to or reestablish homeostasis by either reintegrating dysfunctionally, maladaptively, homeostatically, or resiliently. Dysfunctional reintegration occurs when individuals deal with adversity through destructive means such as violence or substance abuse. An example of dysfunctional reintegration in sport would be an athlete who is frustrated with his ability to improve his performance and turns to illegal performance enhancing drugs to gain an edge. Reintegration with loss occurs when individuals make it through their adversity but lose important protective factors in the process. An example in sport might be a basketball player that misses crucial free throws that would allow his team's season to continue. If the player reintegrates with loss, she might return to play the following season but with a reduced motivation and confidence. Homeostatic reintegration occurs when individuals make it through their adversity but have neither lost nor gained protective factors and thus return to their previous level of homeostasis.

The most desirable form of reintegration is resilient reintegration. Resilient reintegration occurs when individuals not only make it through their adversity, but acquire additional protective factors in the process. An athlete that returns from a serious injury with a greater appreciation of sport or a stronger work ethic than before the injury is an example of someone who reintegrated resiliently. Individuals who reintegrate resiliently are better prepared to cope with future adversities similar to that which they reintegrated from.

Social support and environmental factors play an integral role in the process. Richardson and colleagues (1990) term these factors *envirosocial processes*. Four types of envirosocial processes, protective, enhancing, supportive, and reintegrating, take place from preadversity to reintegration. These processes represent the external systems and support that guide individuals to reintegration.

Support for Richardson and colleagues' (1990) resiliency model has been demonstrated in the health promotion literature in studies with college students

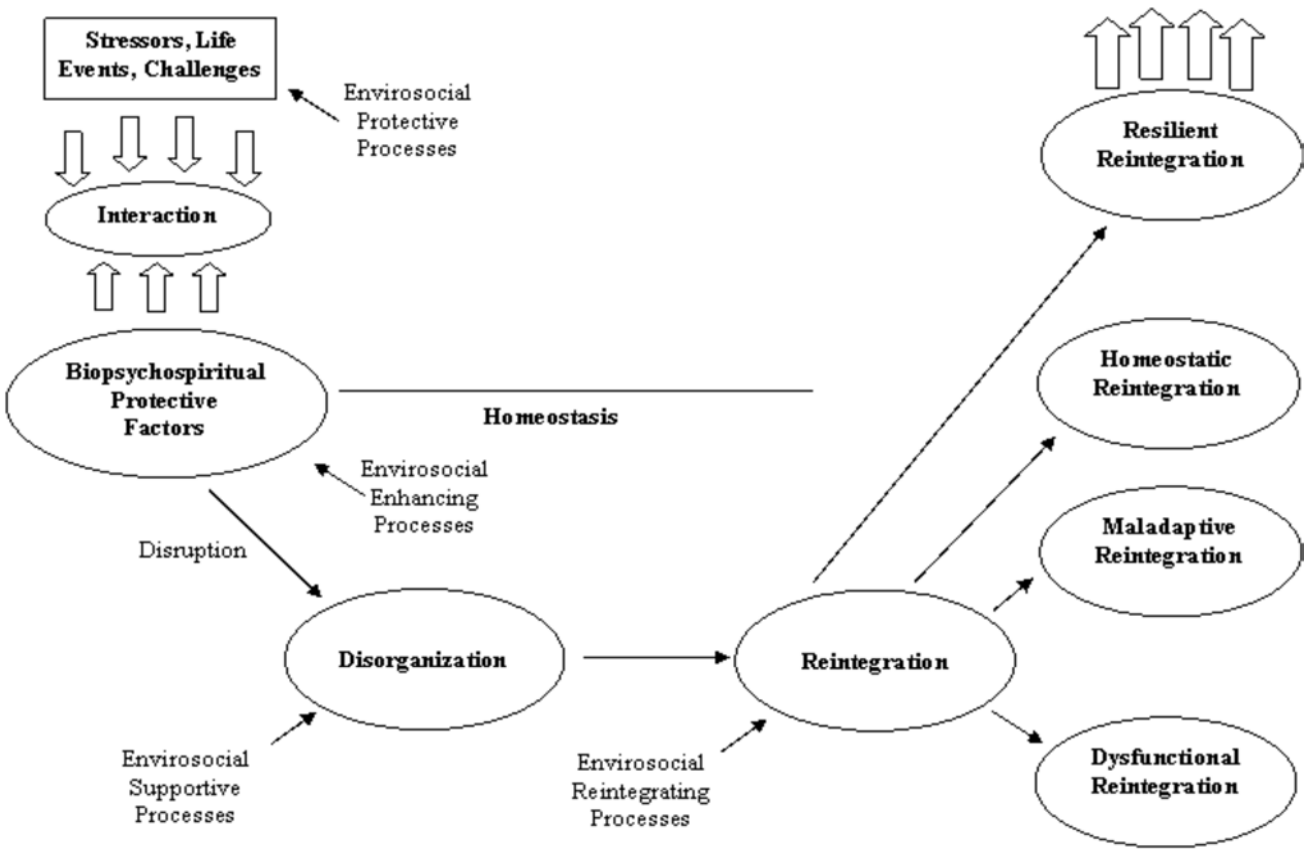

Figure 1 — Richardson and colleagues' (1990) resiliency model.

(Neiger, 1991), employed and unemployed mothers (Dunn, 1994), and adult children of alcoholics (Walker, 1996). The resiliency model seems appropriate for the study of sport and athletes, as the basic tenets of the model support claims that the challenges of sport participation can "build character" through the development of resilient qualities that enable athletes to perform well both in sport and in life (Danish et al., 1993; Miller & Kerr, 2002; Shields & Bredemeier, 1995). A recent qualitative study of competitive athletes returning from injury found that while these athletes experienced a variety of negative emotions and encounters with adversity in connection with their return, they also perceived positive consequences such as a renewed perspective, increased motivation, and enhanced mental toughness (Podlog & Eklund, 2006). However, additional research is needed to examine the process of resilience in sport, and the ways in which athletes use internal and external resources to positively adapt to adversity and perhaps achieve personal growth.

The purpose of this study was to explore athletes' perceptions of their experiences of resilience in sport, using the resiliency model (Richardson et al., 1990) as a guiding framework. Three research questions were of interest: (1) How does the resilience process "work" in sport? (2) What factors influence athletes' response to adversity? and (3) What role does the experience of adversity play in helping athletes to be resilient?

Method

Participants

Ten current or former college and professional athletes (six women and four men; *M* age = 24.1 years) took part in the study. Of the ten, seven were White and three were African American. Athletes who had at least competed in sport at the college level were targeted for participation, as it was felt that they were most likely to have faced major setbacks, obstacles, and adversities in their athletic careers. Recommendations from coaches, athletes, and trainers were used to purposefully select athletes who had faced adversities or identifiable obstacles in their athletic participation (Patton, 2002). The athletes represented a variety of both team and individual sports, and had an average of 10 years experience in their primary sport. The sports represented were soccer (Jaclyn), swimming (Rhonda), track (Jessica), field hockey (Amanda), basketball (Julie), rugby (Sarah), football (Matt and Alex), tae kwon do (Carl), and boxing (Reuben). Pseudonyms were used to protect the anonymity of the participants. Three of the athletes were still competing at the time of the interview, while the remaining seven were no longer in active competition.

Procedure

The researcher conducted semistructured interviews lasting approximately 60 min with each athlete to understand their perceived experiences of resilience in sport. The semistructured approach allowed for the interview to flow as a conversation and for the interviewees' feelings to guide the interview, but within the framework of an interview protocol (Kvale, 1996). Athletes were briefed regarding the nature of the study before the interview, and rapport building questions were used to build trust between the interviewer and interviewee (Kvale, 1996). An interview guide

composed of several predetermined questions was used to ensure that all major concepts regarding the phenomenon were addressed. Following several general questions regarding athletes' sport experiences, athletes were asked to describe the most difficult adversity that they had ever had to overcome as an athlete. Five athletes identified an injury (e.g., concussion, knee injury), two athletes identified a performance slump, one athlete identified being burned out, one athlete identified the transition to college, and one athlete identified an illness as their most difficult sport adversity. All subsequent questions were in reference to the adversity identified by the athlete. Richardson and colleagues' (1990) resiliency model was used to help formulate questions for the interview guide. For example, to address the biopsychospiritual protective factors component of the model, athletes were asked, "What factors influenced how you responded to this adversity?" To address the reintegration component of the model, athletes were asked, "What was the result of the way you handled this obstacle?" Follow-up questions and probes were used to elicit deeper information from the participants (Kvale, 1996). All interviews were audiotaped, and field notes were taken by the interviewer both during the course of the interview and following the interview. The interview guide is available upon request from the first author.

Data Analysis

Inductive analysis was used to analyze the data, in which data were examined for undiscovered patterns and emergent understanding (Patton, 2002; Thomas, 2006). The purpose of inductive analysis is threefold: (1) to condense raw data into a summary format, (2) to establish links between the research objectives and these summary findings, and (3) to develop a framework of the underlying structure of experiences evident in the data (Thomas, 2006). Although data were analyzed inductively, the resiliency model (Richardson et al., 1990) served to drive and direct the study (Caelli, Ray, & Mill, 2003; Sandelowski, 1993). As Sandelowski (1993) stated:

> Researchers often reach back into extant theory to set the scene for a study, to justify the focus of or the techniques used to conduct the study, and to organize, analyze, interpret or provide a context for the data they collect and then must faithfully reconstruct (p. 214).

Because of the primary role played by the resiliency model in the conceptualization of resilience, and in the formulation of research and interview questions, the study began as more *deductive* in nature. The study became more *inductive* at the point of data analysis, as the researchers searched for concepts, relationships, and processes not necessarily accounted for in Richardson and colleagues' (1990) model, and specific to athletes in the sport setting.

All interviews were transcribed verbatim to produce 114 pages of single-spaced typed text. Each interview transcript was read through by the two primary researchers several times to obtain a "sense of the whole" (Dale, 1996). This helped the researcher to not only become familiar with each transcript, but to notice links between what was said at different points in the interview. Procedures suggested by Côté and colleagues (Côté, Salmela, Baria, & Russell, 1993) were used to analyze the interview transcripts. This involved data organization through creating

tags of meaning units, and data interpretation through creating categories. A final schematic representation or "map" of each athlete's interview was created upon completion of the analysis for every interview. These maps provided an overview of what the researchers saw as each athlete's resilience experience. Themes from all ten interviews were examined in search of commonalities across all athletes' experiences. The researchers not only searched for similarities in individual themes across athletes, but similarities in the timing and interaction of these themes. The researchers became aware that although each athlete's experience was unique, the sequence of psychosocial and behavioral events from the point of adversity to the point of resolution was similar. Thus, a conceptual model was created as an attempt to illustrate the links between categories and the temporal sequence in which athletes' resilience experiences occurred.

Trustworthiness

The overall quality of a qualitative study is often referred to as "trustworthiness." One specific procedure used by many qualitative researchers to ensure trustworthiness is triangulation (Creswell & Miller, 1997). Triangulation refers to the use of multiple data sources, methods, investigators, and theories as a means to achieve results that are trustworthy (Creswell, 1998). Triangulation of methods and analysts were used in this study. Participant checks were used as a third method to ensure the trustworthiness of the analysis.

Triangulation of analysts was accomplished by conducting reliability checks using three researchers (including the primary investigator) at three different stages in the analysis. In the first and second stages, the primary investigator and a second researcher independently coded the transcripts to reach agreement on a final group of raw data themes and categories representative of the content contained in the interview transcripts. The third check was conducted upon completion of the data analysis, and involved the use of an independent analyst previously unaffiliated with the study. The analyst was given a random sample of 166 (out of a total of 1,145) of the meaning units tagged by the two primary researchers, and asked to place these meaning units into the categories provided by the researcher. The independent analyst and primary researcher were in agreement for 149/166 meaning units (90%). Individual interviews were triangulated with field notes taken by the primary investigator both during and immediately following each interview.

Participant checks were completed by e-mailing participants three items: (1) their entire transcribed interview, (2) a complete list of the meaning units identified for their interview, and (3) the final analysis, or "map," of their interview. The researcher asked the participants to carefully read over these documents and compare the descriptive results provided with their perceived experiences (Polkinghorne, 1989). All of the athletes expressed satisfaction with the analyses as they were presented.

Results

Ninety-four raw data themes emerged from the analysis of the ten interviews. These themes were combined to form twenty higher order themes and five general dimensions. General dimensions include breadth and duration, agitation, personal

resources, sociocultural influences, and positive outcomes. Based on these dimensions, a conceptual model of the resilience process for the athletes in this study was created (see Figure 2). Relevant examples from each dimension in the model are depicted in the following sections.

Breadth and Duration

As the athletes discussed their sport adversity, it became evident that the general dimensions that compose the model often took place over an extended period of time and had a wide ranging influence on their lives. Jaclyn discussed her memory loss due to a concussion suffered during a soccer game. "It [my memory] started gradually coming back after four months, it got a little bit better at six months . . . I really started remembering everything from eight months." Alex talked about the life impact of his career ending shoulder injury:

> Once that happened, the way I was treated, and the way I was perceived by a lot of people in the whole university changed. [Before the injury) I was in a dorm room that had *all* this space and *all* this nice stuff. [After the injury] I was completely shunned into a small little cubby hole of a room where you could reach the next wall with your hand . . . they also took away *a lot* of assistance. I was no longer allowed to eat at the training table. I was no longer even allowed to go to the study tables.

Julie talked about how she perceived coming to an understanding of her knee injuries as a process:

> Once I got hurt here my freshman year, I was definitely angry, sad, depressed, because I knew that there was a very slim chance for me to come back and play. And then, I guess . . . after that whole sophomore year once I had decided not to play . . . definitely, depressed a lot, just because I've always been an active person. It wasn't just because I couldn't get out on the court and play. I couldn't be active like I used to be . . . I think now . . . just understanding it happened for a reason or, being able to take what happened and use it to learn.

Agitation

The heart of the resilience process for athletes was the use of a variety of coping strategies to deal with a wide range of unpleasant emotions and mental struggles. Athletes noted feeling sad, angry, frustrated, embarrassed, hurt, confused, and neglected as a result of their most difficult sport adversity. Reuben talked about his feelings during a prolonged losing streak. "Losing six fights in a row it's not fun to lose at all especially in boxing when you're just getting beat [up] . . ." Rhonda noted the psychological consequences of her performance slump. "I lost confidence in myself and my abilities. . . . And then after awhile of not doing well . . . you get stuck in this rut." Jaclyn talked about her feelings associated with her concussion and her coach. "I ended up getting so frustrated with the whole situation and so sad and so upset with my coach and the way he handled it."

All of the athletes discussed relying on cognitive and behavioral coping strategies as a way to manage the unpleasantness of their adversity. Sarah noted one of

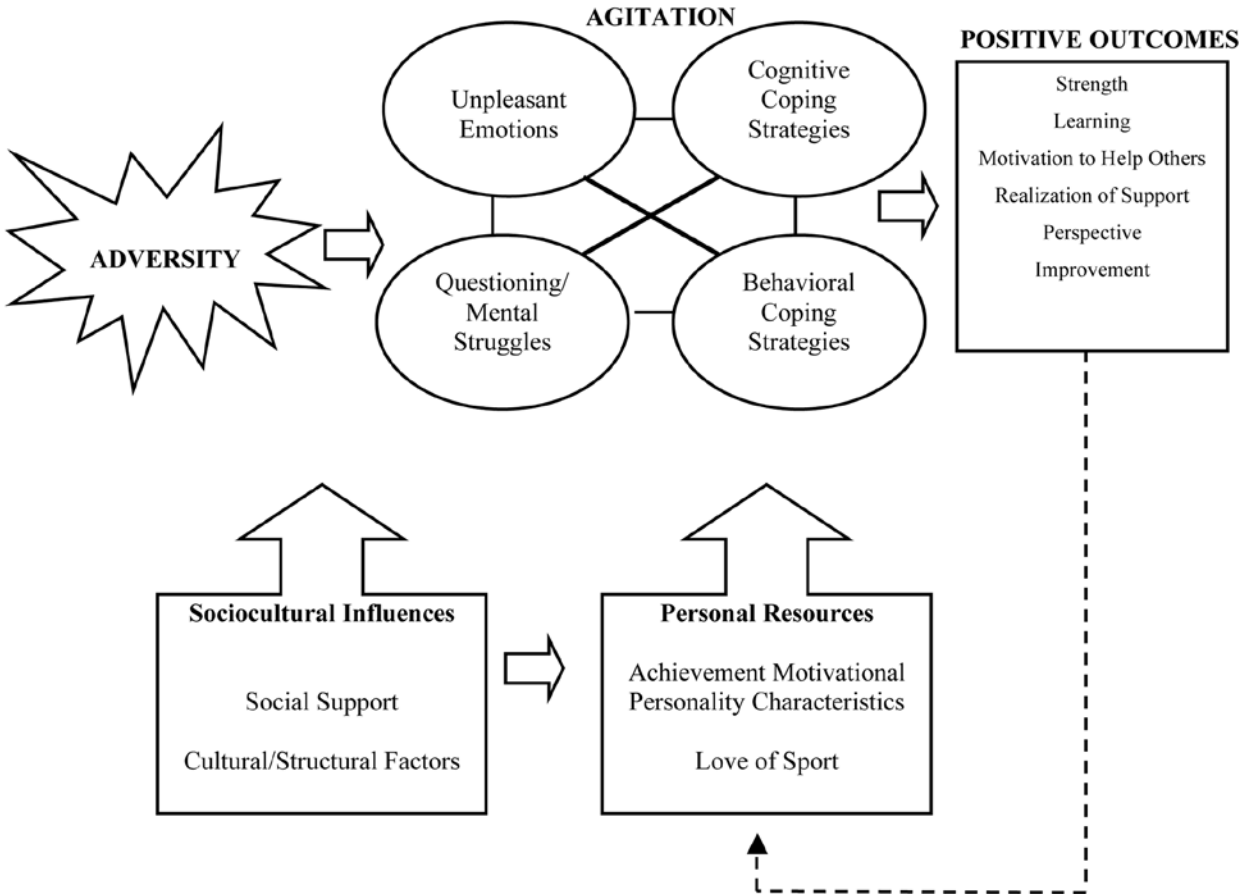

Figure 2 — Conceptual model of sport resilience.

her major coping strategies to being burned out. "I took a year off to realize why I liked rugby and to not make it so serious for me." Alex reinterpreted his career ending injury:

> I changed my attitude about the whole thing and I decided there is something that can be recovered out of this whole process and what's to be salvaged is an education. And so I just put my nose to the grind and went full tilt on it.

Carl responded to his asthma by becoming more aware of his body:

> I have to control both the way I perceive this opponent I can't get too anxious because that'll set it off, as well as I have to control the conditions. I can't allow my body temperature to change really fast because that'll set it off. . . . So I have to always be aware of where I am and how exactly I'm participating in this moment.

Although all of the athletes discussed using coping strategies to deal with unpleasant emotions, the process of experiencing and coping with unpleasant emotions did not seem to occur in a sequential fashion. Thus the second stage of the model represents athletes' agitation, as they simultaneously struggled and coped with their adversity.

Personal Resources

Underlying the mental struggles and coping strategies of athletes were personal resources that influenced the ways in which they dealt with their adversities. These resources are represented in the model as underlying athletes' efforts to manage the unpleasant emotions and mental struggles associated with adversity. Resources mentioned included being positive, determination, competitiveness, commitment, maturity, and persistence. Amanda talked about her perceived mental and physical toughness as helping her to get through her shoulder injury:

> I'm pretty bull headed. I don't like to be told I can't do something. I feel like I have a pretty high pain tolerance. I went to boot camp for a summer so I was pretty strong mentally. So that helped a whole lot I think . . . it was 50% mental and 50% physical.

Jessica discussed her response to a difficult transition to her college track team:

> I'm not a quitter. I don't care how hard things get, I just don't quit that that's just not me. . . . I think me not quitting has gotten me . . . far because I've had so many chances to [say] "Oh I quit…I don't care." But…. I'm not a quitter. I refuse to quit and I am going to be successful, it doesn't matter what I have to do.

A love and passion for their sport was also mentioned by several athletes as being instrumental in their successful response to adversity. Jaclyn talked about her love for soccer:

> I loved it too. I loved playing, which some people when they get to that point they were playing because it was giving them money for an education, which I loved that . . . but at the same time, there was never a time, as much as I hated my coach and as hard as some things were . . . that head injury and knee injury, I never stopped. I loved practice, I loved touching the ball, I loved playing I loved the games. Even just going out and taking shots on goal. Loved it.

Sociocultural Influences

Sociocultural influences were a second underlying factor that seemed to influence the athletes' resilience process. Supportive others facilitated (and in some cases hindered) the resilience process. Racial and structural factors were also evident for the two African American athletes in the study. The following sections present the findings related to these sociocultural influences.

Importance of Social Support. The support provided by others was discussed as a key factor in athletes' response to adversity. Jaclyn discussed her parents:

> They [parents] still came to all my games, all the games, even though I wasn't playing anymore…just being there through all the physical therapy appointments all the surgeries there at the bed . . . when I'm waking up from surgery.

Some of the athletes noted that others helped them by imparting knowledge or giving advice. A physical therapist gave advice to Julie when discussing her playing future:

> Definitely my physical therapist . . . helped me to understand the, extent and the extreme of my injury, and what kind of damage it can cause, if I continued to play . . . they pulled me into a room at the therapy office just to talk to me about that kind of stuff . . . I want to get married and have children and with [a] knee injury . . . it would be really hard on my body to carry that kind of weight. And just walking up and down the steps when I'm older . . . it's already hard. So they gave me a reality check . . . that was huge.

Cultural/Structural Factors. Two of the three African Americans cited race as being a significant obstacle for them at various points in their lives, and subsequently bolstering the personal resources that they used to deal with adversity. Carl noted what being African American meant to him:

> I think it comes from my family . . . growing up as an African American . . . the idea of success and overcoming adversity is a part of the culture . . . it's what we do . . . you recognize you're an underdog and you start to personify it. You become the embodiment of it and so winning is what you do.

Positive Outcomes

Despite the many unpleasant feelings and difficult circumstances that the athletes encountered, all noted that they obtained benefits from dealing with their adversities. This is shown in the model as a consequence of agitation, and as adding to athletes' personal resources. Positive outcomes mentioned by athletes included

learning, gaining perspective, gaining motivation to help others, gaining a realization of their social support, and generally being strengthened and improved because of their adversity.

Learning. Several of the athletes felt that they had learned valuable lessons from their experiences with adversity. Career ending knee injuries taught Julie that basketball was not the most important thing in her life:

> And you just learn to appreciate the smaller things . . . it happened for a reason, maybe for me to understand that or get the different view of a coaching aspect this year . . . going from a player to a manager to being able to be a student assistant coach on the college level. I just try to look at it in as positive way . . . instead of just [saying], "Oh I got injured I could've done this," to [instead], "I got injured . . . it opened different roads for me to be able to explore."

Gained Perspective. Related to learning lessons from adversity was gaining a new outlook or perspective on their sport or on life in general. Jaclyn had a new perspective on soccer upon returning from her injury:

> Oh God I think I'm a different person. I think I look at life differently from that experience. I think I appreciated it even more because I didn't have it. That was the first time I'd ever had a really serious thing happen that could potentially end my ability to play soccer . . . so I appreciated every minute I got to play after that. Every bit of training.

Gained Realization of Support. Previous sections focused on the important role that supportive others played in helping the athletes to deal with their adversities. Matt, a former professional football player, told of how his experiences with an ankle injury helped him to realize the importance of this support:

> One of the biggest things it was it made me, realize that a lot of people really did care about me for cryin' out loud . . . my friend didn't have to spend 3 hours every Friday with me for 6 months. But he did and the other guys didn't have to stay after practice with me for a half hour all during the week and throw a football with me. But it made me realize that I had some pretty good friends, and some teachers that really did care about me. So . . . it was just such a miniscule part of my life but it really did have a big impact on me I think the rest of my life. Because I'll always remember those people doing those things for me.

Strengthened/Improved. Several athletes discussed how they felt that they have in general been made stronger or better because of their adversities. This was discussed in a variety of ways by the athletes. Jessica talked about the impact leaving home and her mom's illness has had on her:

> I think it makes me stronger. I seriously feel, what doesn't kill me, well it's gonna make me stronger in some way . . . just, watching my mom go through all of that, and not complaining about anything once . . . she's seriously amazing . . . I know she's tired, she [says] "I'm not tired I'm fine." [I say] "Mom I know you're tired." But she doesn't give up. So I feel, My mom's going through all of that, and she has not given up . . . I can make it.

Gained Motivation to Help Others. Some of the athletes believed that going through their adversities gave them the motivation to provide support for others as individuals had done for them. Julie's future occupation was perhaps changed:

> I was an education major and wanted to be a coach when I first came here, and through all my knee injuries and all my therapy, now I'm going to physical therapy school. So you never know what can happen through what you learn through your life experiences. [I] always thought I wanted to be a coach, but now, through my experiences I wanna help people get better, and I feel . . . I can relate with people, with . . . especially knee injuries but I feel that I will be able to relate with people through what I'm choosing now to be.

Discussion

The purpose of this study was to examine athletes' perceptions of their experience of resilience in sport. Richardson and colleagues' (1990) resiliency model was used as a guiding theoretical framework to conduct in-depth semistructured interviews with ten high level athletes. The following sections focus on the three research questions addressed by the study.

How Does the Resilience Process "Work" in Sport?

Athletes' perceptions of their experiences support the notion of resilience as an ever-evolving process of interactions between the person and her environment (Egeland et al., 1993; Luthar & Zelazo, 2003). As shown in Figure 2, a variety of factors worked together to form this process, including personal resources, sociocultural influences, and agitation created by a combination of unpleasant emotions and coping strategies. Adaptation was discussed as gradual, and often involved multiple shifts in thought. The model generated from this study refutes the popular notion of resilience as a trait (i.e., athletes or teams that "have" resilience), and expands the concept to include environmental influences as well as internal processes.

When seen as a multifaceted process, concepts of interest in the sport psychology literature, such as social support (Bianco & Eklund, 2001; Rees, Hardy, & Freeman, 2007), passion (Vallerand, Rousseau, Grouzet, Dumais, Grenier, & Blanchard, 2006), and coping (Anshel & Kaissidis, 1997; Kim & Duda, 2003), may be seen as specific predictors of resilient outcomes in sport. Although resilient qualities, such as strong networks of social support, a love of sport, and a determination to succeed, are likely important for the achievement of positive outcomes, the findings suggest that such qualities may not directly lead to positive outcomes, but instead exert their influence through a process of agitation. Indeed, agitation, or athletes' struggles and attempts to "work through" adversity seemed to be at least as important for positive outcomes as the resources that they possessed. Of course, the quantity and quality of sociocultural and personal resources likely influenced the agitation process.

The proposed conceptual model of sport resilience supports models in the general psychology literature which suggest that cognitive appraisals and coping strategies mediate the relationship between personal and environmental resources and psychological outcomes of adversity (Park & Fenster, 2004; Schaefer &

Moos, 1992). Future studies should use the proposed model of sport resilience as a starting point to answer specific questions about resilience in sport. For example, what types of coping strategies are most likely to lead to positive outcomes such as strengthening and the motivation to help others? And what personal resources lead to positive outcomes either directly, or as mediated by coping strategies? Such questions might be best answered through quantitative studies using statistical techniques such as structural equation modeling.

What Factors Influence Athletes' Response to Adversity?

As shown in Figure 2, adversity, sociocultural influences, and personal resources were factors discussed by athletes' as leading to agitation, which in turn lead to positive outcomes. Although a variety of factors were discussed by athletes as influencing their responses to adversity, a constellation of achievement motivational personality characteristics (e.g., competitiveness, confidence, being positive), social support, and coping strategies emerged as the factors most consistently discussed. The facilitative personal characteristics identified by athletes seem to be indicators of mental toughness (Jones et al., 2007). Although the mental toughness construct has been touted as providing an explanation for sport performance, the results of this study suggest that mental toughness may have implications for the personal growth and development of athletes in response to adversity in sport. Perhaps mentally tough athletes are more likely to respond to adversity in a way that allows them to achieve personal growth. The development of instruments designed to measure mental toughness in athletes will allow for an examination of the links between mental toughness and the outcomes of sport adversity for athletes (Jones et al., 2007).

As previously mentioned, social support and coping have been identified as key variables for the well-being and performance of athletes (Anshel & Kaissidis, 1997; Bianco & Eklund, 2001; Kim & Duda, 2003; Rees, Hardy, & Freeman, 2007). Athletes noted relying on all four dimensions of social support while dealing with their adversity, including emotional, esteem, informational, and tangible (see Rees & Hardy, 2000). The presence of support (or the lack thereof) appeared to strongly influence athletes' ability to successfully cope with their unpleasant feelings. In addition to seeking social support, the athletes discussed using a variety of adaptive coping strategies in response to their adversity, including positive reinterpretation, problem solving, and acceptance. Despite a plethora of research focused on coping in athletes, none have examined the link between coping and personal development (Nicholls & Polman, 2007). As the field of sport psychology expands beyond a performance-centered view of excellence, more research is needed to explore how athletes' efforts to manage adversity in sport may influence their growth both as an athlete and as a person.

What Role Does the Experience of Adversity Play in Helping Athletes to Be Resilient?

According to Richardson and colleagues (Richardson et al., 1990; Richardson, 2002), exposure to adversity and challenge allows individuals to begin a process that may lead to resilient reintegration, or the addition and strengthening of resilient

qualities that will promote resilience to future adversities. Indeed, a key piece to the resilience process for the athletes in this study appeared to be the perception of positive outcomes that occurred as a result of adversity. Athletes often saw their struggle as an experience that, although painful at times, served to strengthen their personal resources and bolster them for the future. This finding supports other qualitative studies of individuals who have suffered trauma (Fromm, Andrykowski, & Hunt, 1996), including athletes who suffered serious injury (Podlog & Eklund, 2006; Udry, Gould, Bridges, & Beck, 1997). Thus, athletes who possess the requisite personal and sociocultural resources may not only successfully respond to sport adversity, but gain resources that will allow them to successfully respond to adversity in the future. Longitudinal research is needed to examine whether athletes do indeed "grow" from adverse experiences in sport, and the extent to which growth transfers to different types of sport adversity, and nonsport adversity.

Limitations and Future Directions

A major limitation of this study was the use of single interviews as opposed to multiple interviews with athletes across time. With the upsurge in the use of qualitative research methods in sport psychology over the past 15 years, researchers have noted the need for more rigorous qualitative research designs that include multiple interactions with participants and multiple data sources (Biddle, Markland, Gilbourne, Chatzisarantis, & Sparkes, 2001; Culver, Gilbert, & Trudel, 2003). Single interviews may not provide the depth of data necessary to adequately draw conclusions regarding a phenomenon. The present study included only one interview with each athlete, and athletes identified themselves as being any where from several years removed from their adversity to currently dealing with it. Although athletes who were far removed from their adversity may have suffered from recall bias, in comparison with athletes who were still dealing with their adversity, these athletes were more capable of discussing the ways in which they were able to achieve positive adaptation, and the long-term outcomes of their experiences. However, future qualitative studies of resilience in athletes should adopt a longitudinal interview schedule that will not only make it less likely for recall bias to occur, but that will allow for an examination of the dynamic nature of athletes' thoughts, feelings, and behaviors throughout the process of dealing with sport adversity.

Second, with few exceptions the athletes expressed having successfully overcome adversity and in most cases achieving personal growth because of it. This makes sense, as athletes in the current study were selected based on having demonstrated positive outcomes in response to sport adversity (i.e., resilient reintegration). As previously discussed, individuals may also experience homeostatic, maladaptive, and dysfunctional reintegration. Future qualitative and quantitative research should examine the efficacy of these other aspects of Richardson and colleagues' (1990) model in sport settings. Research on the efficacy of the resiliency model in sport settings would include a focus on athletes who have not adapted well to adversity. For example, athletes who turn to performance enhancing drugs as a result of performance failures may be seen as having reintegrated at the maladaptive or dysfunctional level. A careful examination of athletes who were unable to adaptively respond to adversity may provide valuable insight into what factors contribute to resilient reintegration in sport.

Finally, large scale quantitative studies of resilience in sport should be conducted to further explore the findings of this investigation. Because the proposed model of sport resilience is based on the responses of only ten athletes, confirmatory studies need to be conducted to test the utility of the model. Confirmatory research will allow for further refinement of the model, and improve sport psychology professionals' ability to describe and predict resilience across a wide variety of athletes and sport settings (Morse, 1997). Constructs found in this study to be salient for positive outcomes in athletes (e.g., coping, social support) might be used as predictors of operationally defined resilient outcomes (e.g., following a poor performance with a successful performance, returning from injury). Although some instruments purport to "measure" resilience, such as the Connor-Davidson Resilience Scale (Connor & Davidson, 2003), these instruments are really measures of *qualities* (i.e., first wave resiliency) that may lead to resilient outcomes, such as hardiness, sense of humor, and confidence. Although knowledge of the resilient qualities that allow athletes to achieve positive adaptation is necessary to further researcher's understanding of resilience in sport, the results of the current study suggest that future research on resilience in sport should include a focus on how resilient qualities are fostered in athletes (i.e., second wave resiliency). Instruments such as the stress-related growth scale (Park, Cohen, & Murch, 1996), and the posttraumatic growth inventory (Tedeschi & Calhoun, 1996), might be fruitful for examining athletes' personal growth and development as a result of sport adversity. Athletic populations known to be at-risk for psychological distress (e.g., injured athletes, student-athletes, athletes in transition) could be studied to better understand the unique characteristics and processes that allow them to not only recover, but perhaps achieve psychological growth as a result of their experience. Although no instruments designed to measure resilient qualities or resilient reintegration (i.e., growth from adversity) have been developed for athletes, research using existing measures could stimulate the construction of sport-specific measures of resilience in sport.

Applied Implications

The results of this study have implications for sport professionals who wish to promote the performance, health, and well-being of athletes. Sport psychologists working with athletes who have experienced significant stressors or challenges (e.g., injury, performance failure) may strive to not only aid their recovery, but facilitate positive growth. Although clinicians suggest that growth arises largely from personal struggles and coping, sport psychologists should listen for comments that indicate perceptions of growth by athletes (Calhoun & Tedeschi, 1998). When athletes seem ready to go beyond the negative aspects of their stressor, sport psychologists can help identify and exploit areas of personal growth for sport performance and life outside of sport. The findings of this study have implications for programming aimed at promoting life skills and stress management for athletes. Life skills instructors for student-athletes may broaden athletes' perspective by including the conceptual model developed in this study within their curriculum. For example, instructors might ask student-athletes to identify a previous adversity they have overcome and use the model as a guide to outline their personal resilience process. Athletes may be bolstered by recalling past experiences of resilience when meeting future stressors in sport. Finally, because coaches interact with athletes on a daily basis, they play

a vital role in promoting resilience and personal growth in athletes following sport adversity. Coach education programs might emphasize the importance of providing quality social support in the form of encouragement, empathy, and instruction for athletes during difficult circumstances. For example, rather than ignore injured team members, coaches may be taught to provide them with a role on the team, and ask about the progress of their rehabilitation program.

Conclusion

For years sport psychology researchers have been concerned with the antecedents and processes associated with adverse circumstances such as injury (Andersen & Williams, 1988), burnout (Cresswell & Eklund, 2007), and transition (Giacobbi, Lynn, & Wetherington, 2004) in sport. Little research has focused on athletes' resilience in response to stress and adversity in sport. The proposed conceptual model of sport resilience suggests that while athletes do experience negative psychological effects as a result of such adversities, they may also experience growth and improvement. Personal growth seems to stem from a variety of sociocultural and personal factors, and occur only after athletes have gone through a process of struggle and coping. Future research should test the utility of the proposed model for explaining resilient outcomes, and further explore the role played by sport stress and adversity in promoting the personal growth of athletes.

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