Psychological Effects on Injury

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“Within sports and recreation, conservative estimates indicate at least 3 to 5 million injuries occur annually” (Kraus & Conroy, 1984). Injury has always been a very big part of my sports career. Throughout high school and college, I have witnessed and suffered from many sprains, breaks, tears and surgeries. Because there are so many implications of what actually causes injury, I have personally inquired about all of the antecedents that explain why they occur. According to the textbook Foundations of Sport and Exercise Psychology, by Robert S. Weinberg and Daniel Gould, physical factors are the primary causes of athletic injuries, but psychological factors can also be a huge attribute to athletic injury. There has been an ongoing discussion among sports psychologists about how potentially stressful situations can lead to injury. With this in mind, two sports psychologists, Jean Williams and Mark Andersen created A Model of Stress and Athletic Injury to provide a description of how specific personality factors, history of stressors, and coping strategies impact injury. “Andersen and Williams (1984) developed this multicomponent theoretical model of stress and injury which proposed that most psychological variables, if they impact injury at all, probably do so through a linkage with stress and a resulting stress response” (O’Neill, 2005). Injury in sports, especially specific situations where athletes experience season ending injuries (such as an ACL tear), can be attributed to stressful psychological situations according to the Model of Stress and Athletic Injury.

The torn anterior cruciate ligament (ACL) can be a tragic injury for anyone, but can particularly problematic for competitive athletes. Depending on the severity of this injury, it can be a season ending injury, and can take from 6 to 12 months to heal. For a normal patient, reconstruction entails having to miss a few weeks away from work/daily
life followed by a long period of rest from physical activity. This means that, for an athlete, it can eliminate competition for an extended period of time, during which they have to attend a rehabilitation program and relearn their sports specific skill. “As if the risk of injury to any athlete is not enough, the risk of tearing a knee ligament in females is especially frightening” (O’Neill, 2005).

I experienced my first knee surgery in high school. In one of the biggest games of my junior year basketball season, I went up for a breakaway lay-up, came down in a twisted motion on my right knee and tore my meniscus. I was able to recover quickly after surgery and in a relatively short period of time had returned back to play, but I was always worried about furthering my knee problems. My fears were confirmed by O’Neil: “In no sport is the risk of tearing an ACL more endemic than alpine ski racing, though women’s basketball is giving skiing some competition for this ignominious title,” (O’Neill, 2005), I would always subconsciously think about tearing my ACL. During the summer after my freshmen year of college, I experienced my second and third knee surgeries due to meniscus and ACL tears. While practicing dribbling drills, I planted and my knee went in another direction. After a long and hard year of rehab, I was “cleared” to start playing again. Because of the stress I was under to return quickly by my coach and teammates, and how I was coping with the injury as a whole, I did not simply ease back into playing; I literally jumped right back into another meniscus tear and my fourth knee surgery. However, this surgery went well. For me, the damage to my ACL was by far the hardest and most stressful injury that I have experienced in my sports career.

The sports-injury model and its 3 categories is a great demonstration of why my injury occurred, from a psychological standpoint. With the sports injury model, Andersen
and Williams hypothesized that individuals with high stress, certain personality characteristics and limited coping resources will exacerbate the stress response and will be more likely to appraise situations as stressful and exhibit muscle tension and attention disruptions. Before leaving for summer break after my freshmen year, I had a meeting with my head coach. He emphasized the importance of becoming a great shooter and dribbler because I was going to be a huge asset next season. Every time, I would pick up a ball to practice my dribbling skill, I would get a sense of state anxiety (negative response to danger or fear in a particular situation). In a similar fashion, when I am unconfident in my ability to do something I avoid doing it. Zuckerman (1979) would describe me as a “sensation avoider” when it comes to dribbling. This means that I “have a lower tolerance for arousal and therefore, do not care for change, avoid the unfamiliar and stay away from risky activities” (Williams, 1996). Particularly, when I am put into athletic situations where I have to step out of my comfort zone and do something that I’m not necessarily good at, I tense up and lose focus. This then goes hand in hand with my ability (or lack thereof) to cope. When my ACL injury occurred, my stress response was elevated; it was accompanied by muscle tension and attention disruptions (Williams, 1996), which is why I injured myself.

Daniel O’Neill, the author of Injury Contagion: The Effect of Injury on Teammates’ Performance describes both of these things as emotional responses that can lead to negative thinking and fear of injury, which can in turn effect aggressiveness and ability to execute. O’Neill conducted a study to examine posttraumatic stress disorder (PTSD) and injury contagion create emotional responses in high-level ski racers after witnessing, or seeing the results of and season ending injury to a teammate. In the study,
he examined students from four ski academies for 3 consecutive years. Over this period of time, he analyzed athletes with interviews before, during and after an injury occurred on the team to determine the effects on teammates. Even though his results proved to be inconclusive, some of the data proved that there were some negative psychological affects for some of the teammates. This data is especially interesting to me because not only did I watch one teammate suffer through an ACL injury, but one season later, a second teammate also tore her ACL. The summer before I reached college, one of my new team members, who was going to be a sophomore at the time, tore her ACL in a summer pick-up basketball game. I didn’t think much of the news when I found out, but it still scared me that it could potentially happen to me. Injury contagion demonstrates the idea that an athlete faced with a teammate who sustains a season ending injury may be at greater than normal risk for sustaining an injury themselves” (O’Neill, 2005). In like manner, injury contagion goes hand in hand with PTSD, which affects athletes after seeing someone in their own sport experience a severe injury. I remember a friend always making comments (while I was going through the rehabilitation process), about how much she didn’t want to hurt her knees or get surgery, and then only a few months later she was joining be at the rehab clinic. It is interesting to see that there is a correlation between seeing a teammate get hurt and how that can negatively affect your physiological and psychological state.

Injury in sports, especially specific situations where athletes experience season ending injuries, can be attributed to stressful psychological situations through the Model of Stress and Athletic Injury. This model displays “how a potentially stressful athletic situation (e.g. competition, important practice, poor performance) can contribute to
injury, depending on the athlete and how threatening he or she perceives the situation to be” (Weinberg & Gould, 2011). In my future sports career, I will be more attentive to stressful situations, both inside and outside of the game, while I’m playing due to the potential muscle fatigue, muscle inefficiency, reduced flexibility and motor coordination skills (Weinberg & Gould, 2011), that I could experience. With the support of research done by Jean M. Williams, Daniel O’Neill and the Foundations of Sport and Exercise Psychology textbook, I understand that psychological variables predispose and buffer athletes from injury and that the more stress an athlete experiences, the more susceptible he or she is to injury.
Work Cited


