

“The Importance of Psychological Recovery After Athletic Injury”

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With the rise in psychological wellbeing and mental wellness issues during the Covid-19 shutdowns and quarantining, the field of psychology is at the forefront. Many psychological-related information and ideas are also beginning to rise in relevancy, one of which the psychological recovery from athletic injury. Due to this rise in awareness of mental health-related issues in today’s society, it is now crucial to address the psychological components of recovering from an injury, being that it is also a mental health issue present in today’s society.

The purpose of this essay is to explore the psychological aspects that are present during the rehabilitation of an athlete after they have had a traumatic injury, as well as the importance of these aspects. In our society, we see many athletes—professional and amateur—that return from injury and cannot match their previous level of performance. Many people attribute this decline to the physical aspects; perhaps the surgery did not work or the injury was too severe. However, according to Ardern et al. (2012), there is “preliminary evidence that positive psychological responses were associated with a higher return to sport rate after injury, a faster return and a greater likelihood of returning to the preinjury participation level” (p. 6). This means that something as simple as a psychological issue was not addressed throughout the recovery and the athlete is now struggling because of it. As seen through the last example, the psychological recovery of an athlete is so very important in terms of their future. To examine this importance, this paper will adopt both a psychology and sports medicine perspective.

To further analyze the psychological recovery of athletes, it is important to first address important questions such as: why is psychological recovery used? What are the strategies of

psychological recovery? And how does it affect athletes in their rehabilitation? The use of psychological recovery in sport is a relatively new concept. Yet, thus far, it has proven to be beneficial and extremely important for the recovery of athletes on many occasions. Sports Medical Professionals (SMPs), such as athletic trainers (AT's) or doctors, primarily access the emotional reactions of athletes and thereafter the cognitive responses to each emotion demonstrated (Crossman, 2012, p. 335). By observing these two aspects and applying countless other techniques, the SMPs can rationally monitor the psychological health of the athletes throughout their recovery process and confidently assure that the athlete is in a healthy frame of mind before their return to sport.

Literature Review

The term “psychological rehabilitation” refers to the field of rehabilitation psychology, which is defined by the American Psychological Association (APA) (2015) as “the study and application of psychological principles on behalf of persons who have a disability due to injury or illness.” This field encompasses all things related to the rehabilitation of one’s psyche, whether it is the rehabilitation from a sports injury, a relationship problem, or any other situation.

The existing scholarly conversation on this topic is not all that large; for this reason, it is important to spark the conversation and continue adding on to what is already being discussed. As time passes, the psychology and sports medicine fields are slowly realizing the importance of this topic. Since the research on this topic is not being widely conducted, many of the articles and studies that have been published are very similar with certain distinguishing features.

A central topic in the scholarly conversation is the explanation and demonstration that there are various ways that a medical professional can go about assessing and rehabilitating the psychological aspects of an athlete after they have been injured. A study by Crossman (2012)

speaks about the many uses of psychology in the rehabilitation process but particularly highlights two main points. The first point is the emotional reaction of the athlete and thereafter their cognitive response to the emotions. This is very important because the emotions that are so often connected with injury tend to lead to cognitive responses such as anxiety and stress, both of which will impede recovery (p. 335). Addressing that emotional reaction is crucial to beginning the recovery process in the right direction. The second point is the concept of making rehabilitation work, which means being in the correct psychological mind frame to get the most out of each recovery session (p. 336). This mind frame is achieved in many different ways by social support, open communication, following an athlete-centered approach, the athlete's continued involvement with the sports team, as well as honesty and adherence to the recovery plan (p. 337).

Taylor (2015) continues to explain some more techniques: becoming a better athlete, redirecting your energies, continuing to watch your sport, and developing a mental imagery program. Each of these techniques are very beneficial and can help tremendously in the recovery process. The idea of "becoming a better athlete" means working around the injury to focus on the game techniques that an athlete may have not have had time for while they were playing (para. 11). "Redirecting your energies" means that all the time and energy that was previously used for sports must be used in other ways to stay motivated and mentally sane (para. 13). "Continuing to watch your sport" is essential to staying involved with the sport and it helps train the mind to stay sharp tactically (para. 15). And a "mental imagery program" is also important for psychological recovery, as it coordinates mind and brain and activates muscle in the same way as actually performing the sport does (para. 16). Each of these strategies allow the athletes to stay

busy and productive while they are sidelined, which keeps them from dwelling on the emotions that this injury has created.

As this topic is highly psychological, much of the scholarly research is conducted through case studies. This allows the participants to express their perspectives and their emotions. Particularly with this topic, case studies are extremely crucial, as the only person who can describe their psychological mindset is the athlete themselves. In Arvinen-Barrow et al. (2014), they surveyed ten professional athletes with the primary question being how do the athletes feel about the sports medicine professionals they worked with during the psychological recovery process (p. 765). In Bejar et al. (2019), they surveyed ten NCAA Division I athletes, intending to see what the athletic trainer's influence is on the athlete's psychological needs and recovery (p. 246). In Clement et al. (2015), they surveyed eight NCAA Division II athletes, intending to document the psychological responses from the athletes during each of the three phases of injury rehabilitation (p. 95-96). The next study by Putukian (n.d.) does not conduct a survey, but rather talks more about specific cases in the professional leagues and ties these cases to the lack of mental health recovery programs. An example being the suicide of Kenny McKinley, an NFL player, which occurred shortly after a severe knee injury. Each of these sources analyze different populations of athletes while procuring information that aids in answering their research questions. The different populations that are studied also helps the researchers gain a wider view of the responses to this up-and-coming field of study.

A highly researched topic in regard to the psychological recovery of athletes is whether, and how, specific injuries can change the psychological rehabilitation process. Medical professionals must alter their physical treatment depending on the specific injury of the patient, but there is limited knowledge on whether this is the case for psychological treatment as well.

Turner et al. (2017) explores the difference in psychological responses between a concussion and a musculoskeletal injury. The study had 30 participants in all; 15 participants with a diagnosed concussion who were each matched with 15 others with diagnosed musculoskeletal injury (p. 279). In this study, two tests were used to measure the progress of each group, the Profile of Mood-States (POMS) and the State-Trait Anxiety Inventory (STAI) (p. 279). Throughout the recovery timeline, the participants measured their progression with these tests, and the results showed that there was no considerable difference in the progression of psychological recovery between the two different injury types (p. 283). Although many other studies must be done before there is a unanimous view that all injuries are psychological rehabbed in the same way, this is a very interesting study which helps to build the all-around knowledge that researchers have about this field.

Kontos (2017) looks at the psychological recovery of concussions as well as the lack of knowledge that we have about the psychological recovery from them. Kontos (2017) notes that “the role of psychological factors in predicting outcomes following a concussion is not well understood. We also know little about the psychological sequelae that often accompany concussion” (p. 215). Along with that, the paper explains that with more research, they have discovered that concussions are highly individualized and unique to each circumstance (p. 215). This means that although some people have similar symptoms when recovering from a concussion, no one will have an identical rehab, and thus each case will need to be treated on an individual basis. The rest of the paper highlights the work of many others concerning the psychological responses to concussions. Overall, the articles that were highlighted explain the growing emphasis on concussions and brain injuries as well as the importance of continuing to

study this topic to be better educated on the ways to approach psychological rehabilitation of these injuries (p. 217).

Another popular topic in the scholarly conversation is the research on the psychological aspects of returning to sport. This means that the athlete is now cleared by SMPs to return to play. Ardern et al. (2012) explores this and explains that this period, when an athlete is deemed fit to return to play, can cause great stress on the athlete. The main reason for this is due to the self-determination theory, which comprises three emotional responses — autonomy, competence, and relatedness. Autonomy refers to the psychological factors that the athlete's behavior is self-authored or personally executed—essentially that the athlete can make meaningful decisions about their own life. Competence refers to the cognitive and emotional response that the athlete has, that they have the reasonable ability to succeed in their sports. Relatedness refers to the social context, that there is a sense of connectedness and belonging allowing the athlete to make meaningful connections to others in their life. These elements of the self-determination theory are said to be markers, and when all have been fulfilled, the chance of a successful return to sport is maximized (p. 5-6). Often the three markers are breakthroughs that are tough to achieve due to the toll that injury takes on confidence levels.

Wadey et al. (2014) also investigate this subject. He explains that in a study looking at the recovery of anterior cruciate ligament reconstruction, “only 63% of athletes returned to preinjury levels of participation, and a mere 44% returned to competitive sport” (p. 256). The results of the study made him think that there might be more than just a physical component that plays a role in the readiness of an athlete's return to their sport. This other factor is seen to be psychological. The result of this study was that there is a positive relationship between high intensity and frequency of reinjury anxiety and a “negative” return-to-sport outcome (p. 262). As

mentioned in Ardern et al. (2012), the self-determination theory is a good tool to measure the relative psychological mind frame of athletes and can help with the successful return-to-sport.

Of the sources that have already been briefly reviewed, some have been more important in the research than others. Particularly, these articles represent the general topics that will be covered in the paper. Crossman (2012) and Taylor (2015) both address the many tactics that athletes and sports medicine professionals can use to assess the psychological mindset of an athlete after a significant injury. They also address the key concepts that will help the athlete stay psychologically sane throughout their recovery process. Another article, by Bejar (2019) has been important in addressing that SMPs have a substantial role in this psychological recovery process. These people must understand the proper ways to go about treating their patients, both physically and psychologically. These three sources roughly go over two important subjects within the topic; first, the actual techniques that are used to address the psychological concerns of injured athletes, and second, first-hand feedback by athletes that have experienced psychological rehabilitation while rehabbing a sports injury.

Techniques Used

Each of the techniques explained earlier in the paper are extremely crucial in successfully rehabbing an athlete at the psychological level. This begins with the first medical interaction that an athlete encounters after injuring themselves, typically an athletic trainer on the sports surface (field, court, diamond, etc). This is where the primary technique of managing emotional and cognitive reactions is applied. As alluded to previously, this step in the psychological recovery is so important because it is the athlete's first reaction to their injury and determines the "mood" or atmosphere for the entire recovery process (Crossman, 2012). If the athletic trainer does well in responding to the athlete's immediate psychological concerns rather than focusing solely on the

physical damage, the athlete will almost always be in a better emotional state to confront the reality that their recovery will not be easy but will be feasible. The emotional state of the athlete is now not as severe, due to the diminished cognitive response. A cognitive response typically results after the athlete's emotional reaction (Crossman, 2012, p. 335). For example, if an athlete twists their ankle, some typical emotional reactions would be sadness, fear, and anger. The emotions then set off cognitive responses which could be anxiety, stress, and tension. These cognitive responses can then impede the recovery process. By the athletic trainer addressing the emotions early, the effects are less severe and the recovery process is less affected. In most cases, athletic trainers will address the emotions by offering social support (Crossman, 2012, p. 335).

Once the initial management of the psychological situation is dealt with, the technique that becomes the most effective in the rehabilitation is social support. This piece of recovery is often overlooked but continues to be a major factor in the athlete's rehabilitation process. A study was conducted by Yang et al. (2010) that investigated the social support patterns of male and female collegiate athletes before and after they had been injured. This study showed that all 42 athletes that participated relied more on their coaches, trainers, and physicians for social support (p. 376). Although many people would think that the main social support would come from friends and family, in this specific situation, the collegiate athletes are away from their families, so it becomes difficult to find comfort in voices or faces over the phone. This leads athletes to restructure their support systems in ways that allow them to find comfort and success. The authors also found that "it is crucial to have the right type of support available at the right time because the way individuals cope with stress can change over time" (p. 377). Yang et al. (2010) mentions that the most effective way to provide this support is to have multiple outlets:

Our findings, along with those of others, suggest that postinjury social support from coaches, athletic trainers, and physicians, in addition to that from family and friends, is important in helping injured athletes to minimize the distress caused by injury and to pursue the rehabilitation exercises and regimens necessary for a successful recovery. (p.377-378)

Social support as a whole allows athletes to feel that they are not alone in their recovery process and that they have others that can assist them in their all-around recovery. With the knowledge that many of these athletes find their support system in athletic department personnel, these members must be taught the skills and strategies to support the athletes in a positive psychological recovery (Yang et al., 2010, p. 378).

Along with the two techniques already discussed, there are hundreds of other strategies that can help in the psychological recovery of an athlete. In many cases, the best techniques are those that keep the athlete thinking positively regarding their situation. As mentioned already, Taylor (2015) offers a few approaches: becoming a better athlete, redirecting your energies, watching your sport on TV, and developing a mental imagery program. A few more tactics are goal setting, relaxation, and self-talk (Grant, 2018, p. 20). All these strategies can be used to help injured athletes deal with their emotions and maintain a positive attitude throughout the rehabilitation process, which has been shown to assist athletes in having quicker recovery times (qtd. in Grant, 2018, p. 21).

Post-Recovery Effects

When an athlete returns to their sport after their injury, one of the most common things that ensue in those who did not go through a psychological recovery is reinjury anxiety. As defined in Wadey et al. (2014), reinjury anxiety is

a negatively toned emotional response, with cognitive (e.g., negative thoughts and Images) and somatic symptoms (e.g., feeling nauseous and tense) that arise due to the possibility of an injury reoccurring after an initial injury of the same type and location (p. 2).

This can be a major problem, especially in contact sports, because when someone is anxious or not confident, they tend to be hesitant. In a contact sport such as soccer, hesitation can lead to injury. For example, if two players are going in for a tackle to get the ball and one player does not fully commit because they are scared to be injured, the player that does not commit will most likely be knocked down very hard by the player going in for the tackle at full strength. This leads to reinjury, and the athletes must repeat their entire rehabilitation over again.

So how does one avoid reinjury anxiety? To avoid this, the athlete and their athletic care team must take their time in the rehabilitation and not rush any component. Although it is tempting for athletes to try and return to their sport as soon as possible, in the end, it is not worth it. Another factor to this is confidence; when someone has this anxiety, it is purely based on a lack of confidence or trust that they are actually fit to play. Two researchers, Cupal and Brewer, conducted a study with 30 athletes who were recovering from ACL injuries. They focused on the effects that certain techniques had on the levels of reinjury anxiety that the athletes each experienced. The results of this were that the athletes that went through this 6-month program “showed a significant decrease in re-injury anxiety among participants who received a relaxation and guided imagery intervention compared to participants in the placebo and control groups” (qtd. in Schwab-Reese et al., 2012, p. 76). The ultimate test to determine whether an athlete is ready to return to sport is the use of the self-determination theory. As touched upon in Ardern et al. (2012), the three elements of the theory: autonomy, competence, and relatedness; are said to

be markers and when all have been fulfilled the chance of a successful return to sport is maximized (p. 5-6).

Addressing the Athlete Mental Health Stigma

Many people around the world are aware of the scrutiny that not only athletes but all those dealing with mental illness must face when they come out as having a mental illness. This attitude towards mental illness—mental health stigma—has a hugely negative impact on the attempt to address mental health in all people, but especially in high-level professional athletes. As mentioned in previous sections, the mental health services offered to athletes are very important in helping athletes stay psychologically balanced and in the correct mental positions to excel in their sports. These services are severely impeded by this stigma.

As stated in BMJ (2019), the mental health stigma was reported to be the top factor that deterred athletes from coming forward and being open with their mental health issues. These athletes are taught to believe that acknowledging their mental illness is a sign of weakness rather than an act of strength and courage. Athletes are also in fear of shedding light on their mental illnesses because they fear “that disclosing mental health symptoms or disorders would reduce their chances of maintaining or signing a professional team contract or an advertising campaign” (BMJ, 2019, para. 8). Multiple factors contribute to this stigma still existing in today’s time. A major element of this is the low level of understanding that many people have for the concept of mental illness, possibly because it is not something one can physically see. People do not tell athletes to walk off their broken leg or other physical injury, and similarly, athletes with mental illness cannot just snap out of it; it requires medical attention to help. A simple way to eliminate this is further education and knowledge about mental health

disorders that can help with the awareness, recognition, and prevention efforts in today's world (BMJ, 2019, para. 9).

UPB Psychological Rehabilitation Protocol

The mental health services offered to athletes are extremely important, especially with the many barriers mentioned above. In an attempt to see whether certain campuses also believed this, I contacted the Athletic Training Department at the University of Pittsburgh at Bradford. I asked them if they had a psychological rehabilitation protocol in place for the athletes that have been injured, and if so, what it was. They shared with me a file called Mental Health Emergency Action Plan (EAP). This plan is targeted towards the more serious cases of mental health issues in student-athletes such as severe depression, and signs of self-harm. However, the section of this document targeted towards non-emergent cases can easily be followed in cases of relatively minor psychological issues such as lack of motivation, lack of confidence, negative attitude, and decreased interest (UPB Athletic Training Department, n.d.).

This document provides a lot of information and covers many different situations that may come up when dealing with a mental health crisis. A specific situation that is highlighted is the possibility that this crisis occurs while traveling, such as during an away game. This situation would have to be dealt with differently compared to an emergency on campus. This is because of the lack of specific resources that would typically be available if the emergency had happened on campus. The EAP also includes a flowchart that could be very helpful in determining the next step in the reporting process.

This is the main plan they follow when treating student-athletes, and they mentioned that as athletic trainers they treat the “whole patient” rather than simply the physical injury as some

may believe. The action plan also mentions that it is important that the athletic trainers dealing with psychological distress cases understand their limits in terms of providing psychological care. When those limits have been exceeded, the ATs must know to contact counselling services for further care (UPB AT Dept, n.d., p. 1).

Counter-Argument

Since the psychology of sports injury is quite new as a field, with major developments only coming in the late 1970s (Madhushani, 2012, p. 8), there are many unknowns about how well it would fit in with the current sporting environment. There are also a handful of gaps in the research due to the lack of extensive exploration in this newer field of study. These concerns are very logical and can only be answered by attempting to standardize the process of psychological recovery and observing its impact on sports. Despite the need for more research, the evidence so far suggests that implementing psychological recovery has been very successful for the athletes that have experienced it.

Many people believe that the introduction of psychological recovery will distract the athletes from the focus of simply playing the games. However, Arvinen-Burrow et al. (2014) declares that "results indicate that the most effective SMPs were able to use subtle interventions to assist athletes in rehabilitation, without making them feel as if they were receiving psychosocial services" (p. 768). In actuality, these psychological services can be done without the athletes even realizing it. This supports the idea that the addition of this component for professional athletes will not change the traditional recovery process in any significant way. The psychological element can even be subtly built into the traditional physical recovery process that athletes are so familiar with.

Another relevant opposing view against the idea of psychological recovery is the unknown willingness that athletes may demonstrate if psychological recovery does become a standard practice in the rehabilitation process. This is a reasonable concern and due to the mental health stigma that still exists, many athletes still feel embarrassed to address their mental health. It is also important to make sure that the implementation of this rehabilitation system is accepted by those athletes that it will be used for. As stated previously, the mental health stigma is essentially the only barrier that would deter athletes from accepting this new rehabilitation focus. This is seen in Arvinen-Burrow et al. (2014) when they speak about what certain professional athletes believe the SMP's role is in the rehabilitation process. Many of the athletes "perceived the role of the SMPs to be the primary provider: to treat the physical injury and not to dabble with the psychosocial aspects of injury" (p. 768). As mentioned above, the psychological recovery field is a relatively new concept. This new concept and the current stigma can lead athletes to be uncomfortable with the idea of having psychological services done on them. However, with continuous work to standardize psychological recovery, to end the stigma, and demonstrate a more open and accepting sports environment, all athletes—even those who seem the most strong and tough—will begin to be more willing to openly seek mental health services to reach their optimal playing potential.

Conclusion

In today's societies, there is a lack of mental health support that is given to athletes. Athletes are portrayed as super-humans that are considered weak if they ask for help, or if they admit to having mental health issues. This stigma is even present in the injury recovery process, where sports medicine professionals treat only the physical injury and are not properly trained to deal with the psychological response of the athlete. This stigma also directly affects athletes,

because in most cases the athletes will attempt to “suck it up” and cause further damage to their body in the process. This can eventually lead to athletes to have injuries that are too severe to fix or recover from, thus ending the careers or potential careers of many athletes of all ages. With more awareness and support, the stigma of mental health can be broken, leading to a better environment for all athletes. This paper has helped to move the scholarly conversation by emphasizing the treatment of the “whole athlete,” instead of only the physical symptoms. This paper has also sought to help sports medicine professionals become more aware of the barriers that injury rehabilitation can create while promoting the education surrounding psychological treatment, specifically in an athletic environment.

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