

Course Name: Sports Psychology

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PSYCHOLOGY OF INJURY- INTRODUCTION

Hello everyone, welcome to week 8 of the sports psychology program. I am Priyanka, and in this particular week we are going to be talking about the psychology of injury and career transition in sport. This is a session outline for this week. We are going to be understanding in the first session about sports injury, the stress injury relationship, psychological reactions to injury and sports psychology in injury rehabilitation. Let us just look at this particular image, just take a minute and see what is actually happening in this image. I can see an athlete who is injured, I can sense her pain and she is worried, it feels like the athlete is worried whether she will get back to the sport. The athlete also seems lonely and is sad because she trained really a lot to do well, however the injury seems like a setback for her.

She meets the sports medicine specialist, he gives her hope, she is supported by her physiotherapist, her coach, her parents, her teammates who really believe that “you know what? you can bounce back from your injury.” When she gets a lot of this kind of support, she also believes in herself. There is a sense of self confidence that she has which makes her feel that, “you know what? I really have it in me to embrace this injury and move forward.” So let us try to understand sports injury today.

Millions of athletes in the world are injured in a year. Sports injury is defined as “damage to the tissues of the body that occurs as a result of sport or exercise.” Injuries can vary from minor sprain, strains, ligament tears, fractures or concussions. There are multiple reasons as to why injuries happen. Some of them speak about nutrition being a role, some of the factors could also

be because of over training, it could be also because of lack of hydration, you know it can be because of improper training techniques.

There are multiple reasons as to why athletes actually feel and get injured in sport. In fact, there was a study which was actually conducted by Palmer et al which was published in 2021. It was on self-reported injuries in retired Olympians. In this study, they found that at least 63 percent of athletes spoke about having at least one significant injury in their Olympic career. And the injury prevalence was the highest in handball, at least 82 percent of them spoke about it and was the least, almost 40 percent for shooting, especially in the summer Olympic games. And the knee was the frequently injured area followed by the lumbar spine and shoulder. At least 6.6 percentage of the athletes spoke about experiencing depression during their career. So, we have spoken about what is sports injury, we have also understood, you know, the reasons of injury. Now, let us listen to Major Dr. Ameya Kagali.

He is a sport and exercise medical doctor. He has been the team doctor for India in the Tokyo Paralympics 2020. He has also been the team doctor for Indian hockey men and women's teams. Let us listen to him and understand about what is sports injury?, why does it happen? and also the relationship of the injury and what are the factors which actually cause the injury.

Hello, I am just here to talk about injuries in athletes. Although I see on a regular basis a wide range of injuries, our endeavor is to prevent them than to treat them. And nonetheless, speaking of all age groups and at all levels right from, you know, you have younger teenagers to full blown athletes, more often than not, we see a relatively common overuse injuries in athletes and are caused by repetitive submaximal loading on a bone over time. That is stress injuries are often seen in running and jumping in athletes and are associated with an increased volume or intensity of training workload which is less one part of skill training and then which the coach is responsible for and then one part of, you know, weight bearing or due to something like therabands or any kind of loading as such that is by the strength and conditioner. So, most commonly they occur in the lower extremities, not to say that we have not seen in the lower extremities also, for example swimming, I see a lot of overuse shoulder injuries and of course there are stress fractures which are a step higher or a step more serious than this.

So, it is a cat and mouse game like ,you know we need to see that optimal training. Our tried and tested method, always you have been taught ‘the more you do something, the better you get’. Yes, but then the notion is changing that ‘the smarter you do things the better you get.’ So, repetitive loading requires that much amount of recovery and recovery is just not sleep. Sleep is one of the most important aspect, but along with sleep it is nutrition, it is your passive recovery, your passive stretching, active stretching and many other things, for example, something as common as hydration.

You would not believe that we need to remind the athletes to drink water which is an absolute essential part of recovery, but yet you see teenagers or even elite athletes not drinking enough water. So, I would suggest that most of the injuries are definitely preventable, avoidable and as far as sport is there, injuries are part and parcel of the game. You might have heard it, but we can prevent it by taking some good prophylactic measures like timing and intensity and recovery. So, that is about it for me from ,you know, stress related injuries. Thank you.

Yeah. So, we have heard from Dr. Ameya the role and the importance of various factors in injury. Injury can be caused by multiple factors. One of the predominant factors which plays a role in the injury is stress. Stress-injury relationship model was actually given by Williams and Andersen in the year 1988 and ,you know, they actually spoke about various factors which contribute to stress.

Personality factors, history of stresses and coping resources actually play an important role in the stress-injury relationship. We all know that personality factors like ,you know, optimism, self-esteem, ,you know, it can also be something related to hardiness. These factors play an important role in understanding if an athlete is injured how is he actually going to deal with it or if injury tends to take place, how an athlete is going to be dealing with the injury. Let us say that even for personality factor, if an athlete has, you know, if there is a state anxiety or a trait anxiety, if there is an anxiety high level of anxiety that a person experiences, he will also experience high level of stress and because of that there can be intensity of injury which can be

prevalent in an athlete. And basically another important reason for the injury is the history of stressors.

History of stressors can be multiple things. It can be a major stress, it could be something like an athlete losing a loved one or it can also be something like change of environment, change of a place or a location, which an athlete might experience or it could be something like having a lot of travel, extreme training, a lot of training which is involved. It could be also because of over training and multiple reasons or it can be just small stresses which has been built up over a period of time. And the third, another factor which we are going to talk about is the coping resources. When an athlete, you know, we all know that, we all know very well that somebody who has a good support system, somebody who has good coping skills will also experience less amount of stress and because of that there can be reduction in the level of injuries.

However, research has found that somebody with poor coping skills and somebody with less support system, they are more likely to experience stress and thereby having injuries. Williams and Andersen also spoke about the attention disruption. So, under stress what also happens is the periphery of the vision may actually reduce. So, let us say, if it is a football player, you know, he is actually able to see the whole ground when there is a lack of stress. However, under stress because the attention is affected, you know, the vision becomes very narrow and so, even if some opponent is coming and attacking the player, you know, he will not realize that and the chances of getting injured may be very high because of that.

And another important reason is under stress, our muscle tension also becomes extremely high, there is a lot of tension in the body. Athletes really need a lot of relaxed posture and relaxed body so that they will be able to balance, you know, in some of the spots. However, when there is high muscle tension and let us say, when they are landing or when they are, let us say, that a gymnast would like to land, there may be a lot of imbalance which can take place which could result in injury. So, we have actually spoken about the role of personality, how you know, a personality factors, the stressors, our own coping resources, our attention and muscle tension plays a role in development of stress and in the development of injury.

Now since we have understood about ,you know, the role of stress and the injury, in the next section we will be talking about what are these psychological reactions that athletes have, especially when they deal with stress ok.

I want you to just observe this particular athlete, what image this is the image that is displayed in front of you. From this particular image let us just try to sense ,you know,, feel into your body and sense what this athlete might be feeling. She has been injured. I can feel that she is in pain. She is sad. She is also worried, she is worried whether she will be able to go out there and compete. She is also wondering whether, ,you know,, this injury is going to be fine, whether she is going to be able to make it, whether her body will ever be fine. Whether she will be able to run that particular race with the same timing because of this particular injury. There are of course, a lot of concerns that she actually has. Before we move forward and understand about what the psychological reactions are to the injury in athletes, let us listen to the professional athlete when it comes to her experiences of undergoing an injury.

So, I had torn my ACL, MCL, my medial and lateral meniscus on my knee from running a race and jumping off a 12 foot wall and I did not land correctly.

My first emotion to this was, I did not accept that my injury could be so bad. I thought that if I give it a week it will probably be like a sprain and I would be completely fine, so my first step was denial and I was not, I was scared that I would not be able to run another race that I had next weekend. So besides that I was not, I was not feeling sad because I still have not accepted that this situation had happened to me. And once I finished my MRI and the doctor assessed me, they told me that it is a terrible triad which means all three ligaments are torn. That is when it hit me and from there I was just feeling very heavy, very sad, always constantly questioning if I would ever be able to run again.

So going through my first injury is just that I never knew that I can recover and come back stronger, so it was an emotionally draining journey, like I did not have the ability to get up and do things. I was just doing as I was told and eventually I found a way to take it one day at a time. If I am better than how I was feeling yesterday then I feel okay. But the thing about injury

is some days you feel good and some days you do not feel so good and that is part of the journey. So it really is taking it one day one step at a time.

But emotionally I was definitely on a roller coaster ride. It would go between being really sad and then thinking what am I going to do next, then eventually finding some other forms of happiness and happy, but it is a ride that goes up and down.

So, we have heard this professional athlete speak about her experiences in terms of what happened to the injury, what happened during the injury. So generally, athletes go through these main reactions. Of course, there is a sense of grief, there is a sense of sadness which also has been supported by research, but we are going to focus on these three things when it comes to the psychological reactions of the injury.

Whenever an athlete gets injured, whenever a sports person gets injured, what generally happens is, there is always thinking about, you know, what will this pain ever go away, will my body ever be fine, why did the injury happen. So the first thing that they will always think about is, you know, the injury related awareness. What is the reason I have got this injury, how long will it take for me to recover, what are the negative consequences of the injury. We have heard the athlete speak about the fact that, you know, she was not able to go to work because of the injury, you know, she was not able to do things which you would normally do like for example, walk and her work was extremely physical, that is something that she spoke about, right. So basically we think about what are the negative consequences related to the injury.

And the next one that most of the athletes will think about is, what are the emotions that one person experiences. Like for example, in the audio we heard the athlete speak about her experience wherein she said that she was feeling sad, she was in denial, you know, she did not want to accept the injury, she kept thinking that, you know, what I am going to get better, everything is going to be fine, I am going to make a comeback in just few weeks time, you know, it is just a matter of 2-3 weeks. So basically athletes may experience denial, they may not want to accept the intensity of the injury as a part of the emotional behavior. And apart from this, also what athletes go through is that, you know, there can be a sense of isolation, there can

be confusion, there can be anger, there can be a lot of irritation and frustration because they are not able to do things that they would easily do during the injury. And the third thing that ends up happening is positive outlook and coping.

In the audio we also heard the athlete saying that, “you know what? I learned to accept my injury.” So, the more an athlete accepts an injury says that, “you know what? this is my injury, this has happened to my body”, and takes the ownership around the injury, they really will be able to take charge of their injury and also do certain things which can help them get back into the sport, probably.

So, let us look at the other sports psychological reaction to injury rehabilitation. Sometimes not all injuries are minor, there are also injuries which can be career ending. And if you look at an athlete schedule or a sports person schedule, it is got long hours of training.

A sports person is so passionate about his role as an athlete or as a player that the whole life around them is surrounded by sports. Suddenly when that sport is taken away from them, can you just imagine the kind of loss they will have? There is a lot of pain because there is a sense of emptiness that players may end up feeling when there are career ending injuries. So, that could also be one of the psychological reactions. Fear, anxiety are some of the emotions which a number of athletes actually speak about when they are struggling with injuries. They fear whether they will return back to the same level of performance.

And even during the injury rehabilitation, we will also see them speaking about ,you know, having less confidence, some of them also saying that, “you know what? there is pain, I do not know if I am going to get back to the same performance level, I do not know if my body will ever function properly.” And apart from that ,you know, athletes will also talk about having less ,you know, the performance declining to a large extent. So, these are the reactions to the injury rehabilitation. So, we have spoken about ,you know, we have spoken about the initial reactions to the injury rehabilitation being injury related awareness, then ,you know, emotions that they go through and then once they start taking charge of it, it can be a positive experience for them

and they really work hard in order to get better. So, having spoken about this, I think we have covered quite a lot of things.

Now we are going to have a quiz. So, who gave the stress injury relationship model? So, it was given by Williams and Andersen in the year 1998. If you have got it right, well done. Alright.

So, next in the next section, I will be talking about what sports psychologists exactly do in the injury recovery. Most of the times when we actually hear athletes talk about ,you know, their injury, they we always think about it like ,you know, there is an injury that happens and then there is a return to sport.

But then it is not like in movies right, like in one scene you actually see the injury and in the very next minute you see that there is a return to sport, it does not work like that. When athletes get injured, the process of rehabilitation and the movement towards recovery is extremely long. Some of them may take several months to ,you know, a few months. So, basically it is based on the intensity of the injury that the athlete experiences. So, giving you an outline of what happens ,you know, and then we also think that maybe it is just the athlete who has to support himself.

But I want to bring to your notice that an injury rehabilitation process and helping an athlete through his recovery program is always going to be supported by the sports science team, coaching staff, parents and also organization, it can also be clubs ,you know, organizations, when I am talking about, can be clubs, it can be federations, it can be the state team ,you know, the kind of support that the organization gives plays a prominent role in the recovery of the athlete. So, the teamwork of everybody, all the stakeholders who are actually involved in the injury recovery plays an important role. We will now look at ,you know, what are the reasons an injured player is referred to a sports psychologist.

In my personal experience as a practitioner, so, these are the 4 reasons I feel that ,you know, athletes are referred or sports persons are referred, especially to a sports psychologist. One, is if

there has been a major injury. Second, is if there are frequent injuries or third, if there are poor adjustments to the injury recovery or the rehabilitation process, or fourth, is return to sport.

So, now let us look at this one particular case study. So, this is a case of a major injury. A 23 year old football player, had an ACL injury 2 years before the Olympics and she had her surgery and she was referred to the psychologist. Now, let us try to understand what sports psychologists do.

So, these are the steps involved in the sports injury rehabilitation. Please listen to this very carefully. It is the education assessment phase, second, is the intervention phase and then it is the evaluation phase. Now, going back to the case we know that this particular athlete has had an ACL injury. ACL is anterior cruciate ligament injury which happens with the knee.

So, what are we going to do as sports psychologist? First thing is, I would definitely talk to the sports medical team. Sports psychologists ,you know, need to understand that ,you know, we need to really have a conversation with the medical team, understand what is the nature of the injury, how long the recovery will take place and what is the intensity of the injury for the athlete and how are they thinking the athlete is coping with the whole process of the injury. And once we get an idea it is also important for us to learn about the injury. And learning about the injury is essential because without understanding about what the injury is about, and what significance it is for the athlete, we will really not be able to help the athlete. And third, this is the most important point, because we also need to understand what is the player's level of the knowledge of the injury.

I have seen some of the athletes who have come to me for sessions where probably, you know, their level of understanding has been very minimal. There are people who have good knowledge of what the injury is, what has happened, what is going to happen in the rehabilitation process, how long it is going to take. But some people may not even know, like for example, if you explain to somebody that you have an ACL tear, they will not know what is an ACL tear. So, sometimes they have had a surgery ,you know, they know that it is something to do with the knee, but they really do not know how long it is going to take for them to recover from this

injury and ,you know, the signs of the injury. So, in that case definitely the medical team explains to me and also educates them in terms of what needs to be done.

And at the same time as a psychologist, even ,you know, repeating the same thing and educating the athlete that this is what it is, this is how long it is going to take, is so important for us to do. And the second thing, is definitely in the same athletes case it is important to do the assessment. It is important to assess ,you know, why did the injury happen, what was the reason for it and what is the ,you know,, how is the athlete thinking about the injury. And it can also be sport related assessment, like for example, we can ,you know, the sports psychologist may try to understand and assess what is the sport, what is the competition load like ,you know, when is the next or the upcoming competition, what is the coach or strength and conditioning coach, every single person talking in terms of when the athlete can actually make a comeback and ,you know, what kind of intensity is okay for this particular athlete to take in the rehabilitation program.

I think all sorts of assessment needs to be done. And thirdly, I would also say that understanding the psychophysiological aspects like for example, understanding how is the mood of the athlete, understanding how is the sleep level of the athlete, understanding the nutrition of the athlete ,you know, these things are also extremely important. I remember like we need to also understand and assess the coping and the social support system of the athlete. Multiple times what has also happened is, athletes have felt that , “you know what? I do not have friends to help me cope with this period” or “my friends are playing in the teams.” So, helping them develop that support system and that coping becomes essential and for that to happen in the intervention, we need to understand and assess. And sometimes also what happens is athletes may say that their pain perception level.

We would also like to assess that, in terms of what their pain intensity. So that we can see over a period of time, on a scale of 1 to 10. If the athlete says that, “you know what? it is 8 right now”, we can see if it actually reduces the pain, reduces over a period of time. So, based on what happens with respect to the assessment, the educational assessment, we design intervention plans and then evaluate in terms of what kind of progress we have made as sports psychologist.

So, now let us look at the second case. Sports psychologists also get referred when there are frequent injuries.

Here is a case of a team where athletes are frequently getting injured and the coach has asked the psychologist to see if there are any underlying psychological factors which are causing the injury. So, as a sports psychologist what kind of assessments do we do? Probably as a practitioner, I would definitely like to understand what the training is like? Are there any over training schedules which are happening? When is the competition? What is the competitive load? How is the stress levels in the athletes? You know, also it is very important to understand how is the support system within this team? How are they communicating? and rest and recovery is so important for athletes. So, also I think I would like to understand, if they have any hobbies or how are they recovering? you know, is it more of social media usage? or are they doing something that is fun and relaxing for them? So, some of these things would be extremely good to assess and one of the times I still remember that ,you know, when I was doing an interview with some of the athletes they were saying that, “you know what? training bahut jyada hai”, the training is quite a bit.

So and also we saw that there were frequent injuries in the team because of that particular reason. I am not saying that ,you know, training is always reason for the injury, but then in this particular case, that was one of the reasons for having injury. So, I would say that for us to combat injury, it is so important to have great support system and also focus on rest and recovery and also take care of our self and everybody else who is part of the team. And then once we do this assessment, again go back and intervene, and probably give a feedback to the coach, that this is what the players have been feeling and probably you can look at what ways can they engage more in rest and relaxation and help them to recover better.

Now, before we move forward again there is this quiz, what are the steps involved in the psychology of sport injury rehabilitation? One education phase, recovery phase, intervention phase and evaluation phase and the correct answer is education, intervention and evaluation. So, if you got it right, well done.

Now, I think we have heard two cases. I know it has been quite a lot of information that you have taken in. Moving forward, you know, let us just take a minute, let us just relax, come into the present moment and then probably let us discuss the next case.

So, the third reason as to why, you know, players are sent to sports psychologist for helping them in the injury rehabilitation process, is if the athlete or the player is finding it difficult in coping with the injury.

So, right now let us actually, you know, listen to Dr. Srinand Srinivas, sports and exercise medicine physician. So, he also worked as, you know, the team doctor for the Asian Para Games 2018, he has also worked as a team doctor for Kings 11 Punjab. So, basically we can hear him speak about, you know, what are the reasons as to why, you know, from his experiences he identifies there is poor adjustment to injury rehabilitation.

Hello everyone, this is Dr. Srinand Srinivas, I am a sports and exercise medicine specialist and today I am going to give you a few points about why rehabilitation does not always work for an athlete and there are a few points that we can think about. One is non-compliance by the athlete, one is either they do not understand the exercises properly and do not execute it alright, the rehab exercises, or they are not regular with their sessions, this is why.

Number two is, incorrect nutrition and rest during rehab, so athletes usually focus a lot on nutrition and rest during regular training but fail to do the same thing during rehab. Number three is, athletes being in a rush to get back to sport. Rehab is a long process sometimes and it can really test the patience of an athlete, so the moment an athlete stops feeling pain, they tend to rush back into the sport without waiting for clearance from the medical team. Number four is, there is a psychological element, the fear of getting injured again or the fear of not being as fit as they were originally, so this also plays an element as to why rehab may not work. Another key important factor, is a misdiagnosis or a wrong assessment by the treating person, this could also lead to a possibility of rehab not working, treating for the wrong condition, highly unlikely that the rehab plan will work and yeah, these are my few pointers on why rehabilitation may not work for some athletes, yeah, thank you.

I think that explanation from Dr. Srinand Srinivas has been amazing because he has spoken a lot in terms of ,you know, athletes not being regular to the rehabilitation process, that is one of the poor signs, he has also spoken about ,you know, wanting to rush to the sport. So, I would definitely say that there is a sense of similarity between the physical as well as the psychological symptoms of poor adjustment to rehabilitation. So, let us look at it in terms of what are the poor signs of adjustment to injury rehabilitation, psychologically. So, you can see here that these are some of the signs and symptoms of poor adjustment to the injury rehabilitation.

So, sometimes athletes may be obsessed with “when can I return to the sport?” So, I remember ,you know, having seen some of the athletes who have been, who have had a major injury and they were out of the sport for almost 6 months, but then within the very second week, they would keep saying that, “you know what? I will be fine, I know that I will return to the sport in the next week.” So, there is a slight difference between what is the normal reaction to the injury and what can become a poor adjustment to the injury rehabilitation. If any of the feelings are staying within an athlete for a very long period of time and it disturbs the rehabilitation process, then it becomes a poor sign of the injury process. Some of the athlete may feel guilt ,you know, about letting their teams down. So, some of them speak about ,you know, how because of their injury ,you know, they were not really able to contribute to the team's progress.

So, sometimes they blame their injury for a very long time and keep thinking about it, and this can create more of anger, confusion and sadness in the athletes. Or, you will also see some of the athletes who will talk about , “you know what? no matter what, recovery will never occur.? So, having this all or none thinking, like black and white thinking, where they think that, “no matter what, nothing will change, I will be in the same position.” Even that is really not a good position to be in, because I think we have seen a number of athletes with progress, with support, they will be actually able to make that recovery. And sometimes, also, what happens is, we see that ,you know, athletes come back too soon and get re-injured.

So, that again ,you know, is an issue. And also isolating oneself, not really wanting any support system, feeling that ,you know, getting irritated with smaller things and exaggeratedly bragging

about personal accomplishments, and rapid mood swings, like for example, you know, suddenly there is a feeling that you know of sadness, and suddenly there is an enthusiasm, suddenly there is anger, confusion. So, everything is shifting to a large extent and these could be some of the signs of poor adjustment to the injury. If you experience any of these signs it is always good to consult with a mental health professional or also, visit a medical professional who will be able to help you. And whatever information we provide you here, is only for educational purposes and it is not for any diagnostic purpose. And the fourth reason as to why, you know, athletes are actually sent to a sports psychologist is because of return to play.

So, one is sometimes what happens is that athletes may be termed as medically fit by the medical team. However, there is fear to get back to the sport. So, that is one of the reasons as to why where we come in and help athletes or probably when an athlete has been injured or this has been a major injury. The fear of getting re-injured is so high that there may be resistance to getting to play again.

So, again that is one of the reasons where we help in support. So, you know, we will look at what are the psychological strategies that can be used by athletes and how they can actually work on their injury rehabilitation to a large extent, in the next segment. But for now I think just giving you a quick recap of what we did. We have spoken about what is sport injury. So, hopefully you understood it. We have also spoken about the role and the importance of stress in development of injury.

We have also discussed about what happens to athletes when they are injured. And we have spoken about where and how sports psychologists come in and when we, I mean, how we help athletes. In the next section let us look at what are the psychological strategies that can help athletes especially, you know, to overcome their injuries. Thank you so much.