The Effect of Different Types of Sports Injuries and Time Out of Sport on Intrinsic Motivation

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Abstract
Self-determination Theory (Deci & Ryan, 1985, 1991) indicates the fulfillment of basic needs of autonomy, relatedness, and competence will influence a large number of athlete outcomes. Even though this need fulfillment is important in understanding athlete motivation at any time during their participation, it might be especially important to understand athletes’ need fulfillment when they experience challenges related to their sport. One challenge that might be especially important to understand athletes’ need fulfillment is following injury as, often, an athlete is separated from their team, loses their confidence in their own performance, and may feel like they are fully reliant on others. Further, the type of injury and the length of absence from participation might influence these basic needs. Therefore, we investigated the types of injuries athletes experience over the course of a season, the time lost from injury, and whether either of these aspects were related to the various forms of motivation. In our study, 264 collegiate athletes from a large Division I university in the pacific northwest completed a survey where they reported their injury history and time lost from injury over the previous 12 months and the Behavioral Regulation in Sport Questionnaire (BRSQ; Lonsdale et al., 2008). In total, 45% of athletes indicated they had at least one injury within the last 12 months. Of these athletes, 67 reported acute and 42 reported chronic injuries (several reported both acute and chronic). Results showed no significant relationships between motivation and time lost nor between the types of injury and type of motivation. These findings indicate that an athlete's previous injury history was unrelated to motivation type. As practitioners, it is critical to promote athlete's autonomy, relatedness, and competence during injury in much the same way as if an injury is performing fully.
I. Introduction

- Injuries are inevitable in the sports environment. Knowing how motivation is affected by this can be a helpful piece of knowledge for coaches, athletic trainers, etc.
- Self Determination Theory (Deci & Ryan, 1985, 1991) says that when the three basic psychological needs are satisfied, then that will give way to intrinsic motivation.
- The main pillars of this theory are autonomy, competence, and relatedness.
  - Autonomy: Autonomy is how much control an athlete feels they have within the sport.
  - Competence: how capable or knowledgeable the individual feels about the sport.
  - Relatedness: how close we feel to others as well as how much we feel we fit in with everyone else in the sport.
- Biopsychosocial model takes into account the biological, psychological, and social aspects of a person’s life or in this case their sport.
  - These aspects can play a role in the participation in sport, recovery, and motivation.
- Acute injuries are from one instance or direct trauma that results in immediate symptoms.
  - An example of this type of injury is an anterior cruciate ligament (ACL) tear.
- Chronic injuries are acute injuries that did not heal correctly, maybe because of overuse.
  - An example of this type of injury is stress fracture.

Research Questions: How does motivation differ between chronic and acute injuries? And does time out from sport due to injury predict motivation?

II. Procedures

Participants
- 264 Division-1 Boise State University athletes
- 73 freshman, 64 sophomores, 67 juniors, 54 seniors, and 5 graduate students
- 73 male and 189 female

Methods
- Participants completed surveys at fall compliance meetings that asked about their previous injury history and motivation in sport.
- Total time to complete surveys was 15 minutes.

III. Results

1. 45% of athletes surveyed reported injuries over a 12 month period.
2. Regardless of whether athletes were injured or not and despite injury type, motivation in sport was relatively similar.
3. Time lost to injury was not shown to predict or have any effect on intrinsic motivation.

IV. Discussion

- Time lost due to injury is not a good predictor of intrinsic motivation. The type of injury also does not affect motivation.
  - ACL tear (long time out) vs. a sprained ankle (short time out) should not vary in intrinsic motivation.
- Feuling intrinsic motivation while the athlete is healthy will transfer if the athlete becomes injured. It is less important to focus on motivation towards an injured athlete specifically.
- Using the three pillars of Self-Determination Theory, a coach or athletic trainer can promote intrinsic motivation in athletes even if they are injured.
  - Fuel autonomy by giving the athlete control of their rehab.
  - Fuel competence by talking to them about plays, techniques, etc. Could even have them help coach.
  - Fuel relatedness by still incorporating them into team activities and working with teammates in other ways.

- There was no significance between motivation and time lost due to injury (significant data would be below 0.05).
- There was no significance between the types of injuries and motivation either. This can be seen by the little variation within the means in the graph in the bottom.
- There were less athletes who reported acute injuries (67) than athletes who reported chronic (42).
  - Greater percent of acute athlete's reported being out of sport for 91+ days than chronic.

Motivation and Types of Injuries
- Graph showing the distribution of motivation and types of injuries.