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The Epidemiology of DII Baseball, Basketball, and Soccer Injuries and Potential Preventive Strategies

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Baseball (B), basketball (K), and soccer (S) are among the top-five sports causing injury in males. To date, no published studies have prospectively investigated the epidemiology of sporting injuries. **PURPOSE:** To design and implement a prospective injury surveillance system to describe B, K, and S injuries, and devise potential preventive measures to help reduce injury risk. **METHODS:** Participants were recruited from Bloomsburg University's B, K, and S teams. Sport-specific injury reporting forms were developed, and injury details were recorded by athletic trainers. Information was collected on the injury and circumstances surrounding the injury, with injury defined as "damage to the body that occurs as a result of competing, practicing and/or participating in an athletic activity". **RESULTS:** The B, K, and S teams consisted of 32, 11, and 25 players respectively. There were 73 injuries sustained (B = 34, K = 12, S = 27), with significant differences ($p \leq 0.001$) in all injury parameters between sports. Excluding those who were unsure, in all sports, soft tissue injuries were most common (66.6%), with B having more non-contact injuries, and K and S having more contact injuries ($p \leq 0.001$). There were similar numbers of head and torso injuries among sports, however B had more upper extremity injuries ($p \leq 0.05$), while K and S had more lower extremity injuries ($p \leq 0.001$). B and K had more competition injuries ($p \leq 0.05$), while S had more training injuries ($p \leq 0.001$). **CONCLUSION:** Due to the high injury prevalence, this study reinforces the need for injury prevention strategies, and further highlights that all sports require unique injury prevention strategies, as well as tailoring these strategies to players' positions. For all sports, undertaking a suitable warm-up, evaluating and correcting improper mechanics, and enforcing competition rules may reduce injury risk. Proper conditioning to provide strength and flexibility to the lower extremities in K and S, and upper extremities in B also seems warranted. In S specifically, modifying training intensities and investigating footwear worn and surfaces where games and trainings are conducted might be useful. Whereas in K, plyometric training could be used to improve landing techniques. Lastly, in B, proper preseason conditioning, particularly in pitchers should be investigated.