Abstract

Background: Football participation is associated with risks to acute and long-term health, including the possibility of incurring football-related dementia. Concerns have been raised regarding media coverage of these risks, which may have influenced athletes' beliefs. However, little is known about football players' views on football-related dementia. The risk perception literature suggests that related risk perceptions and features of individual cognition, such as the ability to switch to reasoned deliberative thinking, may influence individual perception of a long-term risk.

Hypothesis/Purpose: Evaluate factors influencing college football players' belief that they are likely to incur football-related dementia in the future.

Study Design: Cross-sectional survey.

Methods: Members of four NCAA Division I Power 5 Football teams participated in this survey-based study, providing responses to demographic, athletic, and risk posture questions, and completed the cognitive reflection test. Logistic regressions were used to evaluate relationships between beliefs about football-related dementia and factors including: athletic and demographic characteristics, football-risk posture, health-risk posture, and cognitive reflection test score.

Results: About 10% of participating athletes thought football-related dementia is likely in their future. Skill players had lower odds than linemen of believing that football-related dementia is likely (OR=0.35, 95%CI=0.14,0.89). For each additional suspected concussion in an athlete's career, his odds of believing football-related dementia is likely increased by 24% (OR=1.24, 95%CI=1.07,1.45). Acute and chronic football-related risk perceptions, as well as non-football-related health risk perceptions, were positively associated with athletes' belief that football-related dementia was likely. Higher cognitive reflection test score, a measure of ability to switch to slow deliberative thinking, is positively associated with odds of believing football-related dementia is likely (OR=1.57, 95%CI: 1.12,2.21).

Conclusions: Some athletes view football as generally riskier while others view football as generally less risky. These risk postures are informed by athletes' concussion history, primary playing position, and their ability to switch from fast-reactive thinking to slow deliberative thinking. Ensuring that athletes are appropriately informed of the risks of participation is an ethical obligation of universities; sports medicine clinicians are appropriate facilitators of conversations about athletes' health risks.