

Testosterone and Cortisol in Coalitional Competition

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ABSTRACT

Fourteen teams of three young men competed in within-group and between-group videogame tournaments. Salivary cortisol and testosterone levels were assessed twice before and twice after each tournament, along with intelligence, anxiety, mood, personality and social variables. Men high on self-reported social leadership traits and who ranked first or second across both teams showed increased testosterone following the between-group competition and increased cortisol following the within-group competition. Low ranking men on winning teams did not show an increase in testosterone, but high ranking men on losing teams did. Although a between-group team effect did not emerge for testosterone, there were consistent differences in hormone response comparing the between- and within-group matches; testosterone was related to performance in the between-group match and cortisol in the within-group match. Implications are discussed in terms of men's competitive responses when competing against teammates compared to when competing against an unfamiliar team.