

Abstract

Past research suggests association between basal steroid hormone testosterone level and its changes with some individual characteristics (especially some behavioral manifestations of dominance and aggression) and its changes within male-male competition. This relationship is usually (in accordance with evolutionary theory) interpreted as the consequence of different individual prerequisites (or the degree of individual motivation) for high status position including winning a male-male competition. The aim of this study was to test the adequacy of measuring jealousy reaction in adolescent boys by way of changes in salivary testosterone level and finding their associations with some individual characteristics mentioned by researchers.

For the purpose of measuring basal testosterone level before starting the experiment and changes in its level following the jealousy stimulus within a competition for a mate which simulated the internet mating and changes in its level after being informed of their failure in this competition, the boys who participated in our study provided three salivary samples (the samples were provided after 15 minutes after the stimuli). For finding associations of basal and mean testosterone level and these hormonal changes with some individual characteristics, the boys filled in a set of questionnaires: EATQ-R (Early Adolescent Temperament Questionnaire – Revised), the short version of IPIP (International Personality Item Pool—Five-Factor Model measure), EBIS (Extramarital Behavioral Intentions Scale), ISJS (Interpersonal Sexual Jealousy Scale), RSPQ (Rank Style with Peers Questionnaire), RSES (Rosenberg Self-esteem Scale) and the expanded version of SOI-R (Sociosexual Orientation Inventory Scale - Revised Sociosexual Orientation Inventory Scale). (EATQ-R, the short version of IPIP, EBIS, ISJS, RSPQ, RSES and expanded version of SOI-R questionnaire). By means of ANOVA for repeated measures and Pearson Correlation test the given associations were tested. No significant changes in testosterone level due to jealousy reaction or to having been informed of failure in the competition were found. In boys with higher scores of aggression the decrease in testosterone level due to jealousy reaction as compared with basal testosterone level was higher than in boys with lower scores of aggression. The decrease, however, showed only tendency to significance. Of the individual characteristics we looked into significant positive correlation of basal testosterone level with scores of Facet Aggression measured by EATQ-R questionnaire was found. In boys with higher basal testosterone level a tendency to negative significance between the degree of jealousy measured by ISJS questionnaire and their basal testosterone level was found. In boys with higher basal testosterone level significant positive correlation of basal testosterone level with the scores of Desire Facet of SOI-R questionnaire measuring sociosexuality was found. No significant correlations between basal or mean testosterone levels and dominance, self-esteem or the other measured aspects were found. The associations between the results and given aspects are discussed and our results compared with the results of other studies dealing with similar issues.

Key words: male-male competition, testosterone, dominance, aggression, jealousy, adolescence