Effects of Swearing on Strength Test

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PURPOSE: To explore the effects of swearing on the strength via isometric and isokinetic knee extension contractions on a Biodex Isokinetic Dynamometer. METHODS: Twelve male college boxer athletes (age: 20.0±0.8 yr, height: 171.3±1.3 cm, weight: 65.2±2.2 kg) voluntarily participated in this study with IRB approval. Participants were asked to perform isometric and isokinetic knee extension contractions at 60°/s in two conditions (swearing and control) by counterbalancing repeated measures design. For swearing condition, participants were asked to swear a common but vulgar word (in Mandarin) during strength test. The control group performed the same contractions without making any sounds or saying any words. The parameters of strength output were compared through paired sample t-test. A value of \( p < .05 \) was considered statistically significant. All results are presented as mean values ± standard deviation. RESULTS: During isokinetic contraction, swearing yielded significantly higher values in average strength (229.6±94.1 vs. 140.6±87.6 Nm, \( p = .001 \)) and peak strength (256.4±88.5 vs. 182.0±76.1 Nm, \( p = .040 \)). There was no significant difference of average strength (241.5±71.2 vs. 226.3±82.5 Nm, \( p = .219 \)) and peak strength (267.4±97.8 vs. 237.2±86.4 Nm, \( p = .098 \)) during isometric contraction. CONCLUSION: Swearing has the potential to enhance strength performance, which explains why athletes and exercise enthusiasts are sometimes seen swearing during game events or their workouts. SIGNIFICANCE/NOVELTY: While swearing has beneficial effects in respect of strength performance, swearing may give a negative impression to the audience. Based on current findings, it is suggested that swearing could be executed as a tactical strategy during sport or exercise events; however, other similar strategies, for example, yelling, are worth investigating if they also enhance strength performance.