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Rapid weight loss behavior in judo athletes: Prevalence, magnitude, and methods.

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INTRODUCTION:

Rapid weight loss (RWL) is characterized as a reduction of body mass equal to or above 3% in up to 7 days. The typical magnitude of reduction is about 5% of body mass, although some athletes may reduce up to 10% before competition [1]. There is limited information about the prevalence, magnitude, and methods of RWL since the judo weigh-in was changed to the day before competition, and it is believed that athletes altered their behaviors due to the extended recovery time.

METHODS:

This study involved 223 judo athletes who were over 18 years of age and actively competing. Participants were required to complete a validated RWL Questionnaire (RWLQ)[2] that included questions about personal information, competitive level, weight and diet history, and RWL behaviors. The questionnaire had a scoring system where a higher score indicated more aggressive weight management behavior. Participants were recruited through online forms and during official competitions. The Mann-Whitney U-test was used to compare scores between the sexes, and a one-way ANOVA was used to compare scores between athletes who started cutting weight at different ages and levels of competition.

RESULTS:

The prevalence of RWL was 90% when all athletes were included and 93% when heavyweights were excluded. On average, athletes lost 4.94% (range: 0-24%) of their body mass 3-5 days before competition. A significant number of athletes (40%) reduced more than 5%. When asked about their greatest weight loss, athletes reported a mean reduction of 8% (range: 0-24%) of their body mass. Approximately 50% of athletes regained 2-3kg (2-6%) in the week after the competition, and about 37% regained more than 3 kg (3-13%). The most common methods used were increased exercise, training with plastic or rubberized suits, and decreased fluid intake. The athletes weight management behavior was most influenced by the judo coach, dietitians, and training colleagues. When separated by age, athletes who started cutting weight earlier had a higher score on the RWLQ ($P=0.002$), but no significant differences were found between males and females ($P=0.285$) or between competitive levels ($P=0.378$).

CONCLUSION:

The prevalence of RWL in judo athletes is slightly higher than previously reported before the weigh-in rule changed [1]. However, the magnitude of RWL is similar for most athletes, and a growing number of athletes are reducing more than 5% of their body mass.

1. Artioli et al. (2010) 2. Artioli et al. (2010)

Topic: Nutrition

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