Original Article

# Characteristics of nutritional intake estimation by BDHQ for male athletes

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## ABSTRACT

**【Aim】**
In the field of sports, a brief method to investigate the definite content of meals is required for continuous dietary support. The purpose of this study was to elucidate the characteristics of the results of a brief-type self-administered diet history questionnaire (BDHQ) given to male athletes.

**【Methods】**
Twenty-eight male athletes who joined the sports club of the physical education department of the university were enrolled as subjects. The types of sports played by the athletes included track and field (throw/decathlon), handball, and basketball. Height, body weight, and body fat percentage of the athletes were measured early in the morning and their responses to BDHQ were recorded. The dietary record (DR) survey was conducted over three consecutive days, during which the training was conducted on two days. The athletes were requested to submit their DRs by providing photographs and recordings on paper.

**【Results】**
Energy intake evaluated based on BDHQ responses was significantly lower than that calculated based on the DR, and no significant correlation was observed between energy intakes estimated based on both methods. The athletes demonstrating a high energy and carbohydrate intake with the DR method showed a low energy intake with the BDHQ method.

**【Conclusion】**
Upon comparison of BDHQ and DR methods of dietary surveys in male athletes, the results of this study demonstrated that the values of energy and nutrient intakes were underestimated when evaluated with the BDHQ method. In addition, this tendency was strongly observed among athletes with high energy and carbohydrate intake.

**Keywords:** Food Survey, Athlete, Energy intake, BDHQ