Hubungan Asupan Karbohidrat dan Kadar Gula Darah Sewaktu (GDS) dengan Indeks Kelelahan pada Atlet Sepak Bola Pria Usia 17-18 Tahun. *(The Relationship Between Carbohydrate Intake and Random Blood Glucose (RBG) Levels and the Fatigue Index Among Male Soccer Athletes Aged 17–18 Years).*

Devi Kusmiati
Clinical Nutrition Study Program
Departemen Of Health

ABSTRACT

Background: *Physical fatigue is a common problem experienced by adolescent soccer athletes due to the high demands of high-intensity intermittent physical activity during training and competition. Carbohydrate intake as the primary energy source and random blood glucose (RBG) levels as an indicator of blood glucose availability play an important role in maintaining performance and preventing fatigue in athletes.* ***Objective:*** *To determine the relationship between carbohydrate intake and random blood glucose levels with fatigue index among male soccer athletes aged 17–18 years.* ***Methods:*** *This study was an analytic observational study with a cross-sectional design. A total of 23 male soccer athletes aged 17–18 years were selected using total sampling. Carbohydrate intake data were collected using the 2×24-hour food recall method, RBG levels were measured using a glucometer, and fatigue index was measured using the Running-based Anaerobic Sprint Test (RAST). Data were analyzed using the Shapiro-Wilk normality test and Pearson correlation test.* ***Results:*** *There is a significant relationship between carbohydrate intake and fatigue index among male soccer athletes aged 17–18 years (p = 0.003). There is a significant relationship between RBG levels and fatigue index among male soccer athletes aged 17–18 years (p = 0.000).* ***Conclusion:*** *There is a significant relationship between carbohydrate intake and random blood glucose (RBG) levels with fatigue index among male soccer athletes aged 17–18 years.*

Keywords: *Carbohydrate Intake, Random Blood Glucose, Fatigue Index, Adolescent Soccer Athletes, Running-based Anaerobic Sprint Test (RAST).*