EFFECT OF DIET ON INSULIN **RESISTANCE IN** ADULTS AT RISK OF DEVELOPING TYPE 2 DIABETES MELLITUS

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KEYWORDS

Insulin resistance; type 2 diabetes mellitus; diet; diet quality.

BACKGROUND

Insulin resistance (IR) has been associated with poor dietary practices and is considered to be the basis of the pathophysiology of type 2 diabetes mellitus (T2DM).

RESULTS

HOMA-IR is negatively correlated with diet quality (OR -0.42; 95% CI (-0.56, -0.22); p<0.001), in model 1, adjusted for age (OR -0.44; 95% CI (-0.73, -0.25); p=0.003), in model 2, adjusted for age and BMI (OR -0.32; 95% CI (-0.61, 0.03); p=0.042), and in model 3, adjusted for age, BMI, and gender (OR -0.37; 95% CI (-0.54, 0.12); p=0.068). Diet quality is significantly explained by 0.6% by the HOMA-IR, considering age (R2=0.006, p=0.003), where there is no significance and only adjustment is added for gender (R2 = 0.083, p = 0.076).

CONCLUSION

Individuals at risk of developing T2DM had a negative correlation between diet quality and IR. Considering adult age, gender, and BMI, the HOMA-IR explains 6.1% of the variation in diet quality.

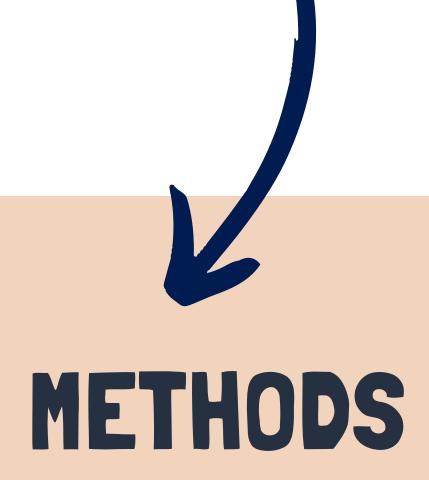
A cross-sectional study of 112 individuals at high risk of developing T2DM (mean age: 43.4 years; 59 [52.7%] women) was done between May and September 2023. BMI and HOMA-IR were calculated using the participants' weight, height, glucose, and insulin levels, respectively. Using the Health Diet Score to assess diet and the HOMA-IR to calculate IR, the IR cutoff value of 2.5 was determined. To investigate the association between diet quality and IR, the Pearson correlation coefficient and linear regression were used.

FUNDING AND CONFLICTS OF INTEREST



OBJECTIVE

To examine the association between diet and IR in adults at risk of developing T2DM.



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