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Background:

The FINDRISC score is a widely recognized and validated for Brazilian population tool for assessing the risk of developing DM2, based on well-established risk factors, and detection campaigns using random BG are widely conducted in population.¹ This study aims to utilize the FINDRISC score to identify individuals at higher risk for DM2 and evaluate its association with BG.

Methodology:

Data of 496 individuals was collected in a detection campaign in São Paulo city. Descriptive statistics using RStudio were calculated to summarize the general assessments of BG using Roche Accu-Chek glucometers, waist circumference, weight, height, BMI, and points scored by individuals on the FINDRISC scale (Fig 1). The correlation analysis was performed using linear regression to explore the relationship between the FINDRISC score and various risk factors. Additionally, the Kruskal-Wallis test was used to examine the differences in BG across different risk groups based on the FINDRISC score.



(Fig. 1: FINDRISC Scale and detection campaign conduction)

Results and Discussion:

The mean BG was found to be 104.87 mg/dL, with a standard deviation of 47.32. The average waist circumference, weight, height, and BMI were 96.59 cm, 77.10 kg, 1.62 m, and 29.34 kg/m², respectively. The overall mean score on the FINDRISC scale was 12.30, with a standard deviation of 4.92. The analysis using linear regression indicated significant associations between the FINDRISC score and BMI, hypertension, diabetes, waist circumference, age, fruit consumption, physical activity level, gender, and family history of diabetes. Moreover, the Kruskal-Wallis test revealed a significant difference in BG among different risk groups as classified by the FINDRISC score (p-value = 0.0343), confirmed with Dunn post-test (p-value = 0.03). Analysis of FINDRISC groups indicate that a random BG higher than 107 would indicate a high risk of developing DM2.

Conclusion:

The study provides valuable insights into the association between BG and various risk factors, as determined by the FINDRISC score, and the risk of DM2 development in the analyzed population. The findings emphasize the relevance of the FINDRISC score as an effective tool to assess the risk of DM2 and identify individuals at higher risk, as well as considering random BG as an interesting tool for assessing this risk. Further research is warranted to validate these findings in larger and more diverse populations, contributing to the development of effective preventive strategies for DM2.

References:

1. Conceição, ALO, *et al.* Sao Paulo Med. J. 138 (03) • May-Jun 2020

Acknowledgements:

We acknowledge the support of Merck and Roche Diabetes Care in providing support and the materials used in the detection campaign and CPTM by providing the institutional support as well as the local settings.