

Muscle Strength and Glycaemic Control among Patients with Type 2 Diabetes

Undergraduate Students, Medical, Biomedical and Health Sciences



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According to NHANES , the average lifetime medical costs for managing diabetes per person is about **\$85,200** with **53%** of the costs used to manage diabetic complications



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Overall complications can be prevented via sustainable blood sugar control. Several studies have investigated the association between muscle strength and **RISK** of diabetes.

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415 million cases of diabetes at 2014. It is the **7th** leading cause of death in the United States of America

Is there an association between Handgrip strength and Glycaemic control among patients with diabetes ?

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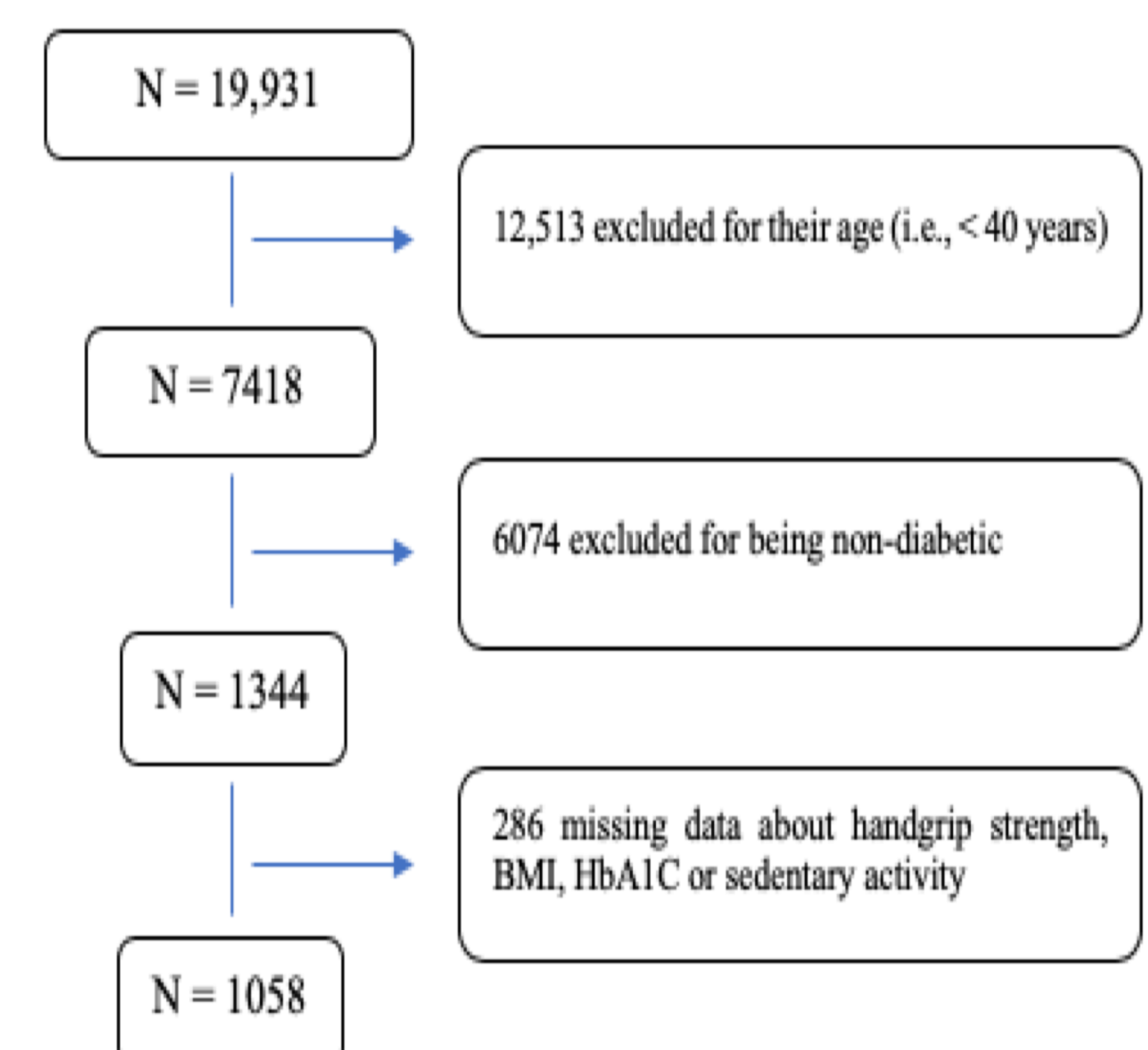
Data on 1058 participants aged ≥ 40 were collected from the NHANES. Muscle strength assessed using handgrip dynamometer and glycaemic control assessed using HbA1c

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Patients in quartile 4 of handgrip had **0.59** odds of poor glycaemic control (95% CI: **0.34–1.02**). However, the reported trend above vanished when further adjusted for insulin use [OR = **0.81**; 95% CI: 0.47–1.38]

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Flow chart of the study design



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Logistic regression analyses were used to assess the association between handgrip strength and poor glycaemic control among participants with diabetes.

Key findings!

The analysis suggests a trend of association between glycaemic control and muscle strength. This analysis may be altered by insulin use