

classified into early TRE (eTRE) and late TRE (lTRE) based on mean value of calorie midpoint. Glycemic control was assessed using HbA1c. General linear model examined associations between HbA1c with kcal, carbs and TRE groups, controlling for age, gender and ethnicity.

Results: TRE was significantly associated with HbA1c ($p = 0.037$) whilst kcal and carbs were not ($p > 0.05$). Only about 19 % of participants fulfilled TRE category, who exhibited significant lower HbA1c than non-TRE participants ($6.9 \pm 0.4\%$ vs $7.8 \pm 0.2\%$, $p = 0.037$). Amongst TRE participants ($n = 34$), eTRE ($n = 24$), who consumed $\geq 50\%$ of kcal before 2:30 pm, showed clinically significant lower HbA1c ($6.8 \pm 0.4\%$ vs $7.5 \pm 0.5\%$, $p = 0.327$) than lTRE ($n = 10$). Notably, TRE participants who skipped breakfast ($n = 12$) had clinically significant higher HbA1c ($7.6 \pm 0.5\%$ vs $6.5 \pm 0.4\%$, $p = 0.069$).

Conclusion: TRE demonstrates a stronger influence on glycemic control in T2D patients than kcal and carbs. The potential harmful effects of late TRE and skipping breakfast warrant further investigation.

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Association between homebound status and glycemic control among community-dwelling older adults with diabetes

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Background: Homebound older adults have high rates of depression, decline in cognitive and physical function, high rates of comorbidities, and increased mortality. Despite the reduced ability of homebound older adults with diabetes (DM) to effectively implement required self-care behaviors, upon which adequate glycemic control rests, no study has examined the association between homebound status and glycemic control.

Aim: We aimed to examine the association between homebound status and glycemic control (defined as HbA1c $\geq 8\%$) among community-dwelling older adults with DM.

Method: This is a cross-sectional study of 1,534 participants with self-reported DM in the 2017 National Health and Aging Trends Survey of a nationally representative sample of Medicare beneficiaries (aged ≥ 65). We defined homebound as those who never or rarely left home in the past month and semi-homebound as those who had difficulty, needed help leaving home, or left

home with assistance. Data was collected through in-person interviews, with a response rate of 91.8 %. Dried bloodspot assays were used for HbA1c. Logistic regression was used to assess associated factors. $P < 0.05$ is considered statistically significant.

Results: A total of 1534 (30 %) community-dwelling older adults had DM. Participants were primarily White (73 %) and female (54 %), and 30 % were homebound or semi-homebound. Only 11% of participants had a HbA1c of $\geq 8\%$; of those, 30 % were homebound and semi-homebound individuals. Homebound status was not associated with HbA1c level $\geq 8\%$. After adjusting for age and sex, only increased weight (OR = 1.01, $p = 0.04$), having hypertension (OR = 0.44, $p = 0.01$), and having cancer (OR = 0.17, $p = 0.01$) were independent predictors of HbA1c $\geq 8\%$.

Conclusion: Our study revealed no association between homebound status and glycemic control among community-dwelling older adults with diabetes. Interventions targeting weight management may improve glycemic control in this population. Future studies should target a more diverse population that includes non-Medicare beneficiaries.

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Feasibility and acceptance of red pigmented rice as a sustainable staple for T2D patients: insights from the RICH study

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Background: Global diabetes guidelines emphasize whole grains to improve cardiometabolic health. However, substituting traditional staple like white rice with wholegrain rice, poses challenges related to feasibility and acceptance.

Aim: To evaluate the feasibility and acceptance of substituting white rice with a Malaysian low glycemic index, anthocyanin-rich, red pigmented rice (UKMRC9) in T2D patients.

Method: This mixed-method study embedded focus group discussion (FGD) within the experimental design of the Rice Intervention in Chronic Health (RICH) study. The feasibility of UKMRC9 substitution was evaluated by comparing trial attrition rate (Chi-square test) and average intake of each rice type throughout the intervention (Student's t test). Validated 9-point hedonic scale measured consumer acceptance. Paired-t test compared short-term consumer acceptance after 2-week consumption. Generalized estimating equations examined the temporal changes in consumer acceptance. Subsequently, FGDs explored facilitators and barriers to sustained UKMRC9 consumption.

Results: Attrition rate (23.5% vs 28.0%, $p = 0.607$) and average rice intakes (49.4 g vs 56.4 g, $p = 0.072$) were similar between each rice type. However, UKMRC9 received significant lower overall lik-

ing (out of 9) compared to white rice (4.44 vs 4.87, $p < 0.001$) after 2 weeks of consumption. Notably, these scores remained constant within each group across timepoints ($P_{\text{Time}} > 0.05$). The intention to purchase UKMRC9 increased from 55.4 % at baseline to 66.0 % at 24th week and increased further to 85.1 % after learning about its health benefits. FGDs identified 6 themes: 'Nutritional Awareness', 'Prior Exposure to Wholegrain Rice', 'Self-efficacy', and 'Rice Gatekeeper' as Facilitators, and 'Norm of White Rice as Staple Food' and 'Sensory Attributes' as Barriers, which triangulated and explained the quantitative findings.

Conclusion: Substituting white rice with UKMRC9 is feasible for Malaysian T2D patients, and its acceptance can be enhanced through increased nutritional awareness, underscoring the pivotal role of healthcare professionals in facilitating this dietary shift.

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The role of time restricted eating on adiposity indices in multi-ethnic Asian T2D patients: analysis from the RICH study

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Background: Time-restricted eating (TRE), which confines food intake to a specific eating window, has gained interest as potential strategies for improving body weight in T2D patients. However, research on the influence of TRE on adiposity indices in multi-ethnic Asian population is limited.

Aim: To determine the influence of TRE on adiposity indices in Malaysian T2D patients.

Method: This cross-sectional screening study included 177 patients clinically diagnosed with T2D recruited through the Rice Intervention in Chronic Health (RICH) clinical trial. Patients' BMI and waist circumference (WC) were measured by trained dietitians. Calorie intakes were assessed using 3-day diet records (3DDR). Eating patterns, including eating window duration, calorie midpoint (the time when 50 % of daily calories was achieved) and meal skipping habits, were also evaluated through 3DDR. TRE was defined as having an eating window of 8–10 h. TRE

patients were further divided into early TRE (eTRE) and late TRE (lTRE) based on the mean calorie midpoint. General linear model was used to compare BMI and WC between TRE groups, controlled for age, gender, ethnicity and total calorie consumed.

Results: There was no significant difference in BMI and WC between TRE and non-TRE patients ($p > 0.05$). However, further analysis of patients who met the TRE category ($n = 34$) revealed that eTRE patients ($n = 24$), who consumed ≥ 50 % of their calories before 2:30 PM, had significant lower BMI ($30.7 \text{ kg/m}^2 \pm 1.6$ vs $37.4 \text{ kg/m}^2 \pm 2.1$, $p = 0.03$) and WC ($93.4 \text{ cm} \pm 3.0$ vs $110.4 \text{ cm} \pm 4.0$, $p = 0.01$) compared to lTRE patients ($n = 10$). Additionally, among TRE patients, those who regularly consumed breakfast compared to breakfast skipper, had lower BMI ($30.9 \text{ kg/m}^2 \pm 1.9$ vs $36.3 \text{ kg/m}^2 \pm 2.1$, $p = 0.37$) and WC ($96.3 \text{ cm} \pm 3.7$ vs $107.4 \text{ cm} \pm 4.5$, $p = 0.33$) although not significant.

Conclusion: The influence of TRE on adiposity indices in T2D patients varies by type (early TRE vs late TRE), with the favourable potential of early TRE warranting further investigation.

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Work productivity and associated costs in patients with young onset diabetes in Hong Kong

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Background: Young-onset diabetes (YOD), defined as age of diagnosis before 40, is increasingly prevalent globally. Individuals with YOD have multiple unmet needs with work productivity implications.

Aim: We investigated risk factors associated with productivity and estimated annual indirect costs among individuals with YOD in Hong Kong.

Method: Chinese patients with YOD enrolled in the Precision Medicine to redefine Insulin Secretion and Monogenic diabetes (PRISM) Trial in Hong Kong completed surveys between June 2023 and September 2024. Overall productivity was measured by item "Using 0 (worst) to 10 (best) scale, how would you rate your overall performance on days you worked during past 4 weeks?" in World Health Organization Health and Performance Questionnaire. Multiple regression was conducted to evaluate association between productivity and risk factors, adjusting for potential confounders.