Breakfast skipping and risk of hospitalization and/or mortality from type 2 diabetes in male and female Canadians: The linked CCHS-DAD-CVSD 2004-2017 study

INTRODUCTION

Eating timing and frequency is a topic that is gaining public interest in the form of chrononutrition and intermittent fasting regimes, often in relation to prevention and management of chronic diseases such as T2D.

Earlier studies focused on the role of breakfast skipping in developing type 2 diabetes (T2D), whereas less is known about the implications of eating breakfast on other adverse T2D-related outcomes over time and whether they differ by sex.

OBJECTIVES

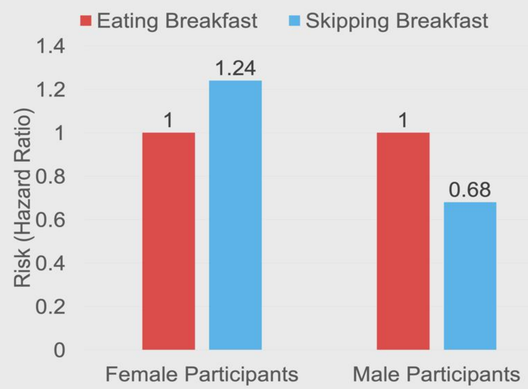
To assess the long-term relationship between skipping breakfast and the risk of T2D-related hospitalization and/or death in male and female Canadians and to test for an interaction with sex.

METHOD

- Cox proportional hazard regression models estimated hazard ratios (HR) in 12,990 adults without diabetes at baseline from the 2004 Canadian Community Health Survey linked to the Discharge Abstract Database and Canadian Vital Statistics Death Database 2004-2017.
- Breakfast skipping was defined by a negative response to eating breakfast or brunch on a 24-hour dietary recall.
- Multivariable-adjusted HR were adjusted for demographic, lifestyle, and dietary factors. *A priori* subgroup analyses by sex and a test of interaction with sex were conducted.

RESULTS

- Among male participants (n=5,660; n=330 cases), the adjusted HR for the risk of T2D-related hospitalization and/or death for skipping breakfast compared to those who ate breakfast was 0.68 (0.43–1.08), whereas the opposite direction was observed among females (1.24; 0.85–1.82) (n=7,330; n=375 cases).
- While these associations were not significant, the p-value for the test of interaction with sex was significant (p=0.01).



CONCLUSION

Breakfast skipping was not associated with increased or decreased risk of T2D-related hospitalization and/or death in either males or females in this sample of Canadian adults. However, a subgroup difference was observed that, while potentially underpowered, still warrants further investigation.

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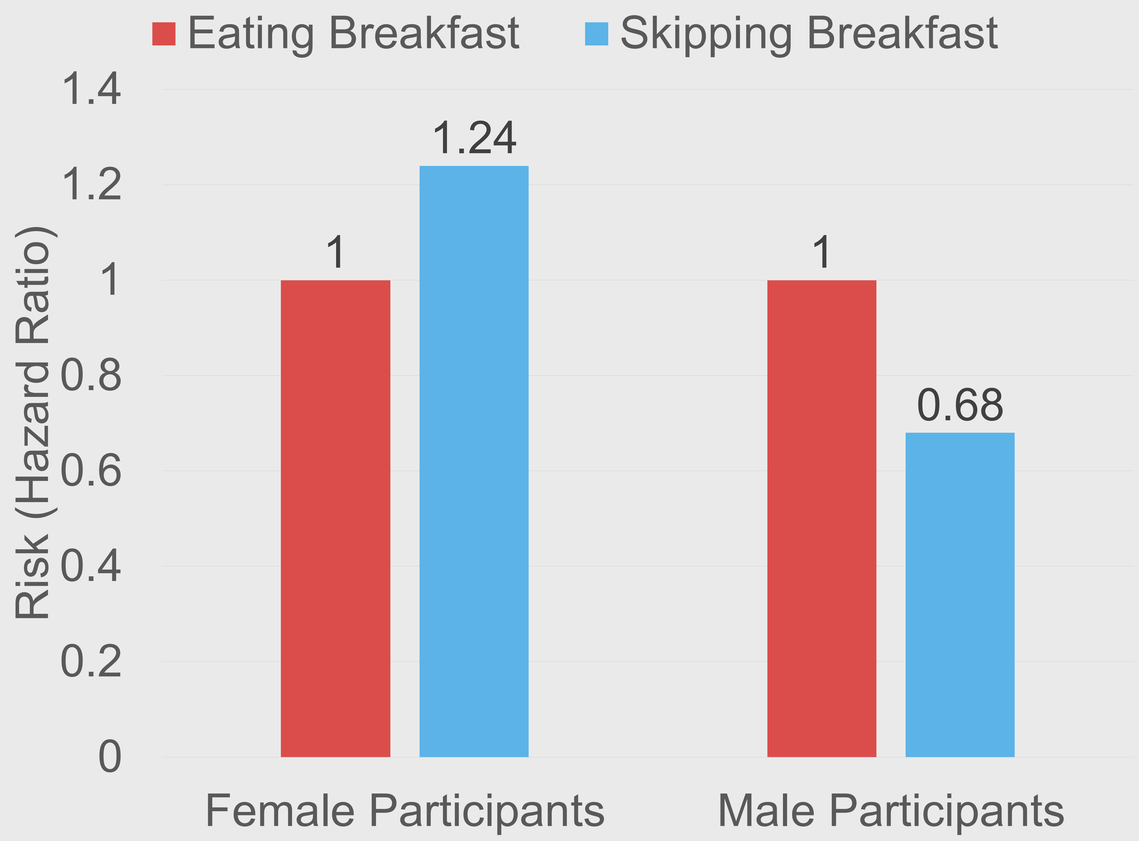

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REFERENCES

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