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## Take-away milk tea intake was associated with cholesterol independent of adiposity in young adults

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**Introduction:** Take-away milk tea (TAMT) is popular among young generation, and the numbers of retails of TAMT have increased dramatically in recent years in many cities in China. Non-dairy cream is one of the major ingredients of TAMT. Concerns have been raised whether trans-fat originated from non-dairy cream may have an influence on cardio-metabolic traits. We evaluated the associations between daily intake of TAMT with plasma lipid profiles among young Chinese adults, who are the major customers of TAMT retailers.

**Materials and Methods:** The study population was from the phase 1 sample (104 adults) of the Carbohydrate Alternatives and Metabolic Phenotypes study. Those lacking blood samples or with a body mass index less than 18.5 kg/m<sup>2</sup> were excluded, therefore, a total of 88 subjects with an average age of 22.8 years were included in the analysis. A food frequency questionnaire with 27 items was used to collect the dietary intake. Generalized linear regression was used to evaluate the associations between TAMT intake and cholesterol levels.

**Results:** The estimated mean ( $\pm$  SE) of TAMT intake was 14.4  $\pm$  3.4 ml/day, with apparent differences between males (8.8  $\pm$  2.7 ml/day) and females (17.7  $\pm$  5.1 ml/day). The mean of total cholesterol of the participants was 4.1  $\pm$  0.1 mmol/L. After adjusted for age, sex, education attainment, smoking status, alcohol drink habit, and physical activity level, daily TAMT intake was positively associated with total cholesterol (beta  $\pm$  SE = 0.0053  $\pm$  0.0020, P = 0.011). The association was not substantially changed with further adjustment of body fat percentage (beta  $\pm$  SE = 0.0053  $\pm$  0.0020, P = 0.010). Similar associations were observed for high/low density lipoprotein cholesterols. When analysis was performed by sex, the association was only observed among females (beta  $\pm$  SE = 0.0049  $\pm$  0.0022, P = 0.031), but not in males (beta  $\pm$  SE = 0.0022  $\pm$  0.0060, P = 0.703).

**Conclusion:** In young adult Chinese, we observed an association between TAMT intake with plasma cholesterol level, independent of body adiposity.

### Conflict of Interest

There is no conflict of interest