

中文題目：比較第 2 型糖尿病的兄弟姐妹和父母病史對代謝症候群的影響

英文題目：Comparison of the effects of sibling and parental history of type 2 diabetes on metabolic syndrome

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**Background:** Family history (FH) includes parental FH and sibling FH. There is no research on the comparison of the effect of sibling FH, parental FH and the combination of sibling FH and parental FH of diabetes on metabolic syndrome (MetS) and MetS components. The aim of this study was to investigate the associations between sibling history, parental history and simultaneous sibling and parental history of diabetes, and the presence of MetS.

**Materials and Methods:** Our study comprised 5,000 participants from Taiwan Biobank. The participants were stratified into four groups according to sibling and/or parental FH of diabetes. MetS was defined as having 3 of the following 5 abnormalities based on the standard of the NCEP ATP III and modified criteria for Asians.

**Results:** Multivariate logistic regression analysis showed participants with sibling FH of diabetes (odds ratio [OR], 1.815; 95% confidence interval [CI], 1.293 to 2.548;  $p = 0.001$ ), participants with parental FH of diabetes (OR, 1.771; 95% CI, 1.468 to 2.135;  $p < 0.001$ ), and participants with simultaneous sibling and parental FH of diabetes (OR, 2.961; 95% CI, 2.108 to 4.161;  $p < 0.001$ ) were significantly associated with MetS. A synergistic effect of sibling FH and parental FH of diabetes on the association of MetS was also observed.

**Conclusions:** In a nationally representative sample of Taiwan adults, a FH of diabetes shows a positive association with MetS. Moreover, both a sibling and parental FH of DM was more relevant than either a sibling FH of DM or parental FH of DM alone.

**Key words:** parental family history, sibling family history, diabetes mellitus, metabolic syndrome