For reprint orders, please contact: reprints@futuremedicine.com

Comparing self-reported ethnicity and structure-determined ethnicity: analysis of antipsychotic-induced weight gain

Response to: Kaufman JS, Hamra G. In Chan et al. the difference between $p < 0.05$ and $p < 0.05$ is $p > 0.05$. *Pharmacogenomics* 14(16), 1941–1942 (2013).

KEYWORDS: antipsychotic-induced weight gain ■ self-reported ethnicity ■ structure-determined ethnicity

Thank you for forwarding us the letter regarding our paper 'Role of ethnicity in antipsychotic-induced weight gain and tardive dyskinesia: genes or environment?' [1].

We also thank the authors of the letter for their interest in our work.

We agree with the letter's authors that self-reported ethnicity and the ethnicity estimated by genetic markers are highly correlated. However, as we showed in our manuscript using the principal component analysis, this is not the case when the ethnicity is not correctly reported by the study subject.

Regarding the interpretation of our results, we agree with the letter's authors that looking only at the p -values is not the best strategy; on the other hand, the standardized coefficients of self-reported and genetic marker-estimated ethnicity were 0.264 and 0.232, respectively, confirming that self-reported ethnicity has a higher effect than that of the ethnicity estimated by genetic markers. We agree that self-reported ethnicity is a binary variable and the ethnicity estimated by genetic markers is a continuous variable. However, in the linear regression model, it is possible to include both binary and continuous predictors (i.e., sex and age).

With regards to the interpretation of p -values, the one obtained from the structure analysis is rather close to 0.05, while the p -value obtained from the self-reported ethnicity model is 0.021.

We agree with the letter's authors that the unstandardized coefficients are similar for the ethnicity estimated by genetic markers and the self-reported ethnicity. However, while the authors of the letter correctly pointed out that the unstandardized coefficients cannot be used to compare the magnitude of a binary predictor and a continuous predictor, they discuss the similarity of the two coefficients (3.677 and 3.967 for self-reported and structure-based ethnicity, respectively).

We think it is more appropriate to compare the standardized coefficients (0.264 vs 0.232), since one variable is binary and one is continuous. In addition, we do not think it is correct to report the unstandardized coefficients in kilograms as the letter's authors did, since the dependent variable is percentage change from baseline weight rather than weight difference expressed in kilograms.

In conclusion, we agree with the letter's authors that the sample size of this study is a limitation. Therefore, future larger studies are needed in order to confirm whether self-reported ethnicity is indeed a better predictor of weight gain compared with structure-related ethnicity. However, the results of our study support the notion that the self-reported ethnicity has a greater effect (measured by the standardized coefficients) on predicting weight gain compared with genetic marker-estimated ethnicity, which achieved a marginally significant association.

Disclaimer

This work is the opinion of the authors and does not represent the views of Future Medicine or its employees.

Financial & competing interests disclosure

The authors have no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties.

No writing assistance was utilized in the production of this manuscript.

Reference

- 1 Chan LF, Zai C, Monda M *et al.* Role of ethnicity in antipsychotic-induced weight gain and tardive dyskinesia: genes or environment? *Pharmacogenomics* 14(11), 1273–1281 (2013).

Vincenzo De Luca^{*1,2},
Marcellino Monda²
& Lai Fong Chan³

¹Department of Psychiatry, University of Toronto, Schizophrenia Program, CAMH, 250 College Street, Toronto, ON M5T1R8, Canada

²Department of Experimental Medicine, Second University of Naples, Naples, Italy

³Department of Psychiatry, University Kebangsaan Malaysia Medical Centre (UKMMC), Kuala Lumpur, Malaysia

*Author for correspondence:
Tel.: +1 416 535 8501 ext. 34421
Fax: +1 416 979 4666
vincenzo_deluca@camh.net