



## Invited response to commentary. Small numbers are not predictive: Congenital blindness may or may not be protective for schizophrenia

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### ARTICLE INFO

#### Article history:

Received 28 April 2019

Received in revised form 29 April 2019

Accepted 3 May 2019

Available online 11 May 2019

#### Keywords:

Congenital blindness

Cortical blindness

Peripheral blindness

Schizophrenia

Psychotic disorders

#### Dear Editor,

We agree with [Maymon and Ben-David \(2019\)](#) that caution needs to be exercised in the results we present: so as to avoid over-interpretation of the data due to the low statistical base rates noted in their commentary; due to caveats regarding possible under-ascertainment of schizophrenia and blindness cases; and because of the likelihood that new incident cases will arise in future in the younger members of the full cohort.

However, we note the following:

First, our conclusions are less definitive and much more cautious than Maymon and Ben-David state. Specifically, we write: “The results from this whole-population cohort, although possibly underpowered, lend confidence to findings from smaller case studies that congenital or early cortical but not peripheral blindness is protective against schizophrenia.”

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Second, this is the first published study to use a whole population cohort to examine whether the phenomenon observed in small case studies holds true in big data. This is an important step in trying to understand the observed association. Our intention was to carefully present descriptive results to share the key features of the data transparently. We made no claims of statistical inference because of the limitations already stated. However, given our use of a whole population cohort to explore this association, it would be remiss of us not to report that we did not see a single case of schizophrenia or another psychotic disorder in people with congenital/early cortical blindness. In the future, it would be valuable if we could repeat this work in a much larger cohort.

Finally, findings of protective factors are rare in schizophrenia epidemiology which has uncovered mainly negative risk factors for schizophrenia. While our approach to the data was cautious, we do not wish to be so conservative that we cannot feel some excitement at the possibility that understanding the neurobiology of this potential protective phenomenon (difficult a task as it might be) may indicate future targets for intervention and/or prevention.

#### Declaration of interest

The authors have no conflicts of interest to declare in relation to this work.

#### Author contributions

All authors contributed to the letter of response.

#### Role of the funders

This work was supported by grants from: the Australian National Health and Medical Research Council (#303235; #458702; APP1002259; APP1080606); and March of Dimes (#12-FY04-48; #12-FY07-224). The funders had no role in the design and conduct of the study, collection, management, analysis, interpretation of the data, nor in the preparation, review or approval of the manuscript.

**Acknowledgement**

We thank the Data Linkage Branch of the Western Australian Department of Health for data linkage and extraction, and client support. We also thank the custodians of the Western Australian Hospital Morbidity and Mental Health Data Collections, the Western Australian Midwives Notification System, and the Western Australian Register of Developmental Anomalies for the provision of data.

This study was approved by the Western Australian Department of Health Human Research Ethics Committee (2011/75) and The University of Western Australia Human Research Ethics Committee (RA/4/1/1322).

**Reference**

Maymon, Y.K., Ben-David, B.M., 2019. [Small numbers are not predictive: congenital blindness may or may not be protective for schizophrenia.](#) *Schizophr. Res.*