

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



LSHTM Research Online

Christensen, K; Tomassini, C; Juel, K; (2003) Risk of suicide in twins - Reply. *BMJ (Clinical research ed)*, 327 (7424). p. 1169. ISSN 0959-8138 <https://researchonline.lshtm.ac.uk/id/eprint/15235>

Downloaded from: <http://researchonline.lshtm.ac.uk/15235/>

DOI:

Usage Guidelines:

Please refer to usage guidelines at <https://researchonline.lshtm.ac.uk/policies.html> or alternatively contact researchonline@lshtm.ac.uk.

Available under license: Creative Commons Attribution Non-commercial
<http://creativecommons.org/licenses/by-nc/3.0/>

<https://researchonline.lshtm.ac.uk>



Letters

Risk of suicide in twins: Authors' reply

BMJ 2003; 327 doi: <http://dx.doi.org/10.1136/bmj.327.7424.1169> (Published 13 November 2003) Cite this as: BMJ 2003;327:1169

Kaare Christensen (KChristensen@health.sdu.dk), **professor of epidemiology, Cecilia Tomassini, research fellow, Knud Juel, senior scientist**

Institute of Public Health, University of Southern Denmark, Sdr Boulevard 23A, DK-5000 Odense C, Denmark

Centre for Population Studies, London School of Hygiene and Tropical Medicine, London WC1E 7HT

National Institute of Public Health, DK-2100 Copenhagen, Denmark

EDITOR—Population based studies from Denmark have shown that family ties, such as having both parents together, being married, and having young children,¹ are associated with a lower risk of suicide. Twins represent a unique and close relationship,^{2 3} which made us hypothesise that twins have a lower suicide rate. Our 51 year follow up study of more than 20 000 twins confirmed this hypothesis, but this does not in itself shed any light on the causal mechanisms.

Voracek thinks that a lower intelligence level in twins may be the reason for the lower suicide rate. Setting aside concerns about drawing causal inferences, Voracek's argument also relies on the premise that twins have a lower IQ than singletons. New research on this topic, overcoming methodological problems in the older studies, indicates that this assumption does not hold.⁴

Verberne says that our observation could simply be due to correlation in cause of death within twin pairs. Correlation within twin pairs affects the estimation of the standard error (which is, however, not a problem in our study owing to low twin concordance for suicide), but it does not bias the point estimate,⁵ and therefore this cannot be the explanation of our finding of a reduced suicide rate in twins.

Sack argues that the finding should be interpreted in a sociological context, and we agree that the aetiology of suicide is complex. We believe that it has to be sought in an interaction between biological, psychological, and social factors.

Additional authors are: Niels V Holm, consultant, and Axel Skytthe, senior scientist, both of the Danish Twin Registry.

Footnotes

- Competing interests None declared.

References

1. Qin P, Agerbo E, Westergaard-Nielsen N, Eriksson T, Mortensen PB. Gender differences in risk factors for

- suicide in Denmark. *Br J Psychiatry* 2000; **177**: 546–50.
2. Neyer FJ. Twin relationship in old age: a developmental perspective. *J Soc Pers Relat* 2002; **19**: 155–77.
 3. Tomassini C, Rosina A, Billari FC, Skytthe A, Christensen K. The effect of losing the partner and losing the twin on mortality. *Twin Res* 2002; **5**: 210–7.
 4. Posthuma D, de Geus EJC, Bleichrodt N, Boomsma DI. Twin-singleton differences in intelligence. *Twin Res* 2000; **3**: 83–87.
 5. Holm NV. The use of twin studies to investigate causes of diseases with complex etiology with a focus on cancer. PhD thesis. Odense: Odense University, 1983.