Q Is brain weight reduced in people with schizophrenia?

METHODS

**Design:** Systematic review with meta-analysis.

**Data sources:** MEDLINE, PsycLIT, and Biological Abstracts were searched for a previous review initially to 1998. The present review extended this search to studies published to December 2001. Bibliographies were hand searched and researchers contacted for unpublished data.

**Study selection and analysis:** Only those studies published in peer reviewed English language journals were considered for inclusion. Inclusion criteria: age >18 years; diagnosed with schizophrenia (according to either Feighner, DSM-IIIR, DSM-IV, ICD-9, or ICD-10 diagnostic criteria), and had whole brain weight determined either at the time of autopsy or after formalin fixation. Participants were excluded if they: had known brain abnormalities (such as infarcts or tumours) or a history of conditions known or suspected to affect brain weight (such as neurodegenerative disorders, alcohol or substance addiction, head injury, epilepsy, or leucotomy). Analysis: results were analysed by multilevel modelling to account for known physiological influences on brain weight, such as participant’s age and sex.

**Outcomes:** Brain weight.

MAIN RESULTS

Brain weight is significantly reduced in people with schizophrenia (n = 540) compared with control subjects (n = 794); the weighted mean difference being 24 g, 95% CI 1 to 47; p = 0.04 (approximately 1 ounce).

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CONCLUSIONS

Consistent with MRI volumetric findings, brain weight is slightly but significantly reduced in people with schizophrenia.
Review: brain weight is reduced in people with schizophrenia

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