Supplementary Material

Table S1: Comparison of observed and imputed data for key variables

Variable	**Observed data**		**Imputed data (across 20 datasets)**	
	Total number of values, N	*n (%)*	*Total number of values, N*	*n (%)*
Sex, male	26,408	14,298 (54.1)	80	47 (58.8)
Ethnicity, Black	26,019	6,816 (26.2)	7860	1866 (23.7)
Valid MRI scan report, abnormal	790	365 (46.2)	512,440	226,128 (44.1)
	Total number of values, N	*Mean (SD)*	*Total number of values, N*	*Mean (SD)*
Age at scan	1904	43.5 (19.4)	490,160	41.4 (17.1)

Table S2: STROBE checklist for case-control studies

	Item No	**Recommendation**	**Location**
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	Abstract: Methods
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	Abstract: Methods
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	Introduction
Objectives	3	State specific objectives, including any prespecified hypotheses	Introduction
Methods			
Study design	4	Present key elements of study design early in the paper	Methods: Study design
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	Methods
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls	Methods: Exposure
		(*b*) For matched studies, give matching criteria and the number of controls per case	N/A

Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	Methods
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	Methods: Outcome, Exposure, Confounders
Bias	9	Describe any efforts to address potential sources of bias	Methods
Study size	10	Explain how the study size was arrived at	Methods
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	Methods: Confounders
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	Methods: Statistical analysis
		(*b*) Describe any methods used to examine subgroups and interactions	Methods: Statistical analysis
		(*c*) Explain how missing data were addressed	Methods: Statistical analysis
		(*d*) If applicable, explain how matching of cases and controls was addressed	N/A
		(*e*) Describe any sensitivity analyses	Methods: Statistical analysis
Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	Figure 1
		(b) Give reasons for non-participation at each stage	Figure 1
		(c) Consider use of a flow diagram	Figure 1
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	Table 1
		(b) Indicate number of participants with missing data for each variable of interest	Supplementary Table 2

Outcome data	15*	Report numbers in each exposure category, or summary measures of exposure		Table 2
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included		Results: Abnormalities
		(*b*) Report category boundaries when continuous variables were categorized		N/A
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period		N/A
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses		Results: Abnormalities, Lateralisation, Pathology
Discussion				
Key results	18	Summarise key results with reference to study objectives		Discussion
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias		Discussion
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence		Discussion
Generalisability	21	Discuss the generalisability (external validity) of the study results		Discussion
Other information				
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based		Funding

Table S3: Comparison of patients with observed and missing valid MRI scan reports

Variable	**Patients with a valid MRI scan (*N*=790)**	**Patients without a valid MRI scan (*N*=25,622)**
Age at index, mean (SD)	43.9 (19.8)	40.2 (17.0)
Sex, *n* (%)		
- Male	439 (3.1)	13,859 (96.9)
- Female	351 (2.9)	11,759 (97.1)
- Not stated	0 (0.0)	4 (0.0)
Ethnicity, *n* (%)		
- White	410 (2.6)	15,427 (97.4)

- Black	275 (4.0)	6,541 (96.0)
- Asian	49 (3.5)	1,335 (96.5)
- Mixed / Other	48 (2.4)	1,934 (97.6)
- Not stated	8 (2.0)	385 (98.0)

Table S4: MRI scan abnormalities by diagnostic group

Primary diagnosis	**Catatonia group**		**Comparison group**	
	Total *n*	Abnormal *n* (%)	Total *n*	Abnormal *n* (%)
Organic or neurodevelopmental disorder	3	3 (100)	124	102 (82)
Schizophrenia and related disorders	50	14 (28)	266	92 (35)
Mood disorders	12	6 (50)	143	71 (50)
Neurotic disorders	3	1 (33)	31	14 (45)
Personality and behavioural disorders	5	2 (40)	31	8 (24)
Substance use disorder	2	0 (0)	45	27 (60)
Not stated	4	1 (25)	69	24 (35)