

PERCEIVED HERITABILITY OF MENTAL HEALTH DISORDERS AND ATTITUDES TOWARDS PSYCHIATRIC GENETIC TESTING IN AUSTRALIA, THE UK, AND USA

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AIM

- Evaluate perceived heritability (h^2) of three mental health problems and attitudes towards genetic testing in three large samples from different countries.
- Identify what personal characteristics are associated with attitudes towards genetic testing.

METHODS

- Sample of genetic research participants from Australia (N=3,646), and members of the public from the U.K. (N=501), and the US (N=500).
- Hypothetical questions about interest in genetic testing, perceived usefulness of genetic testing, and beliefs about malleability of behaviour, among others.
- Also asked to estimate the h^2 of alcohol dependence, schizophrenia, and major depression.

RESULTS

Figures: In x-axis, percentages of agreement for each statement within disorder. In y-axis, lay h^2 estimates grouped into quintiles. From left to right: [0-12.5); [12.5-37.5); [37.5-62.5); [62.5-87.5); and [87.5-100].

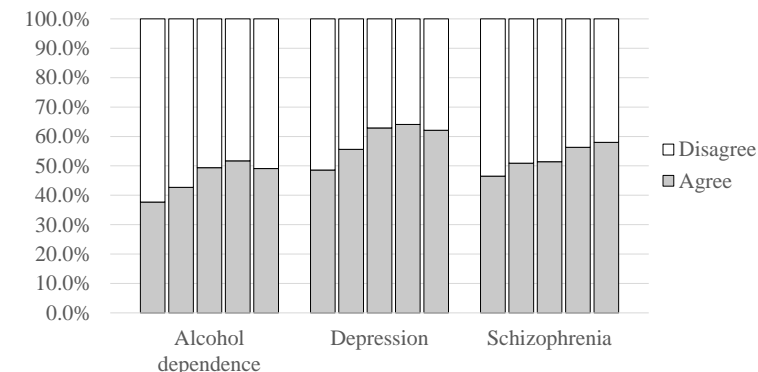
Example: 40% participants who estimate h^2 of depression to be 87.5-100% agree that they wouldn't choose a partner who has a strong genetic predisposition for the disorder.

Table 1. Lay heritability estimates (percentages) divided in quintiles.

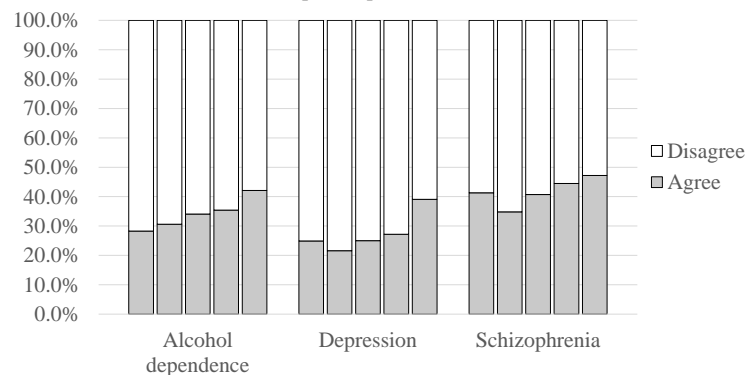
		[0-12.5)	[12.5-37.5)	[37.5-62.5)	[62.5-87.5)	[87.5-100]	Mean (SD)
Alcohol dependence $h^2 = 0.41^*$	Aus.	12.6	38.8	39.5	7.9	1.2	36.5 (21.3)
	U.K.	16.3	39.5	31.0	11.5	1.6	35.3 (22.0)
	U.S.	9.8	26.0	40.3	21.4	2.5	44.8 (22.3)
Schizophrenia $h^2 = 0.77^*$	Aus.	2.0	11.7	39.3	39.6	7.4	59.7 (21.5)
	U.K.	9.4	22.4	35.4	28.3	4.4	48.4 (24.6)
	U.S.	6.9	14.4	30.7	35.2	12.8	57.9 (24.8)
Depression $h^2 = 0.34^*$	Aus.	6.6	27.4	50.7	13.4	1.8	44.1 (20.8)
	U.K.	6.8	25.0	43.9	21.2	3.0	46.6 (21.8)
	U.S.	3.9	21.7	42.7	28.4	3.3	50.7 (21.3)

* Most recent published h^2 point estimate available for 'mental and behavioural disorders due to use of alcohol', 'schizophrenia', and 'depressive episode', respectively, in the meta-analysis by Polderman et al. (2015).

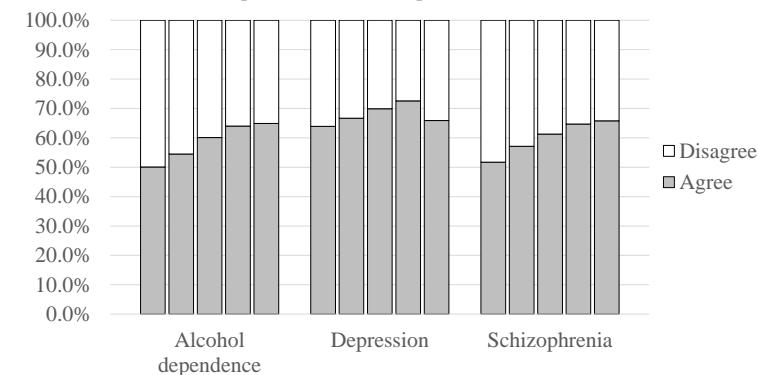
I would like to know my genetic predisposition just for the sake of knowing



I wouldn't choose a partner who has a strong genetic predisposition



Knowing my children's genetic predisposition would help me be a better parent to them



CONCLUSIONS

There is a high variability in attitudes towards psychiatric genetic testing and lay estimates of h^2 for mental health disorders. Lay estimates of h^2 are associated with attitudes.