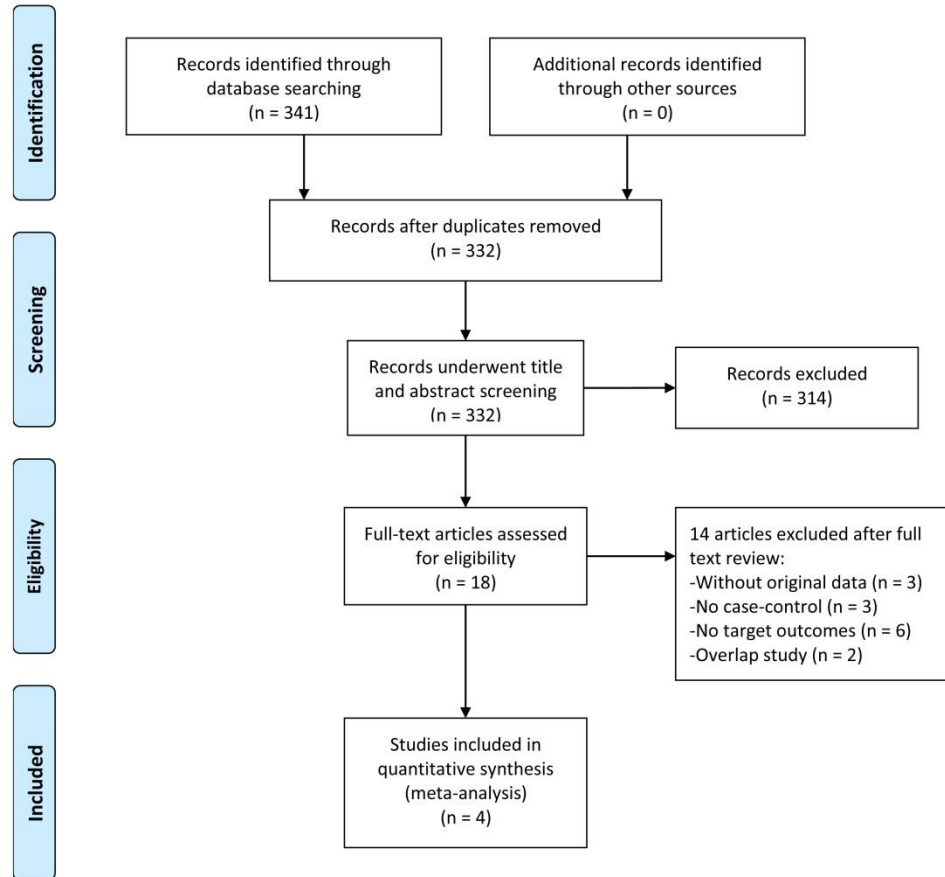


Appendix 1 to Tomioka Y, Numata S, Kinoshita A, et al. Decreased serum pyridoxal levels in schizophrenia: Meta-analysis and Mendelian randomization analysis. *J Psychiatry Neurosci* 2018.

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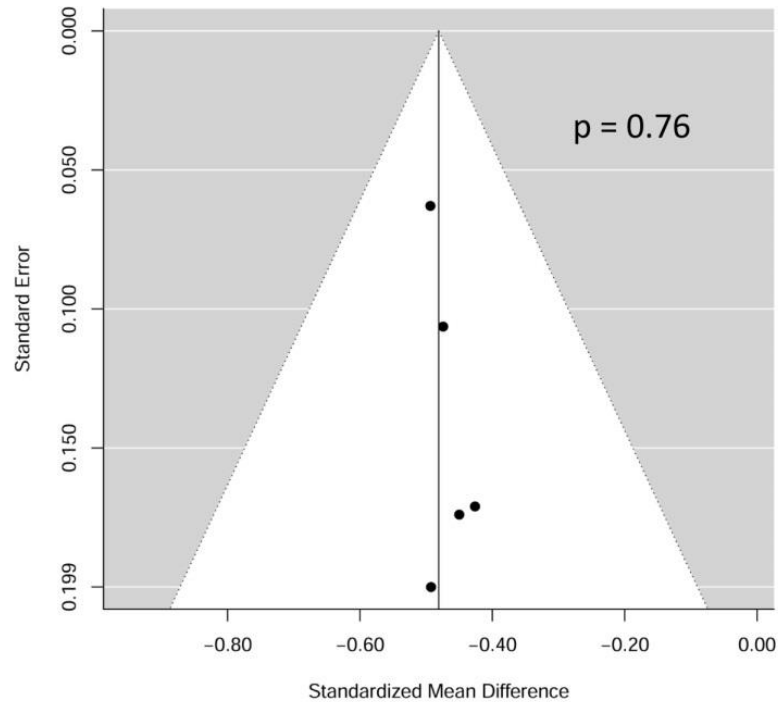
Supplementary Figure 1
A flowchart of the study selection process

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Supplementary Figure 2

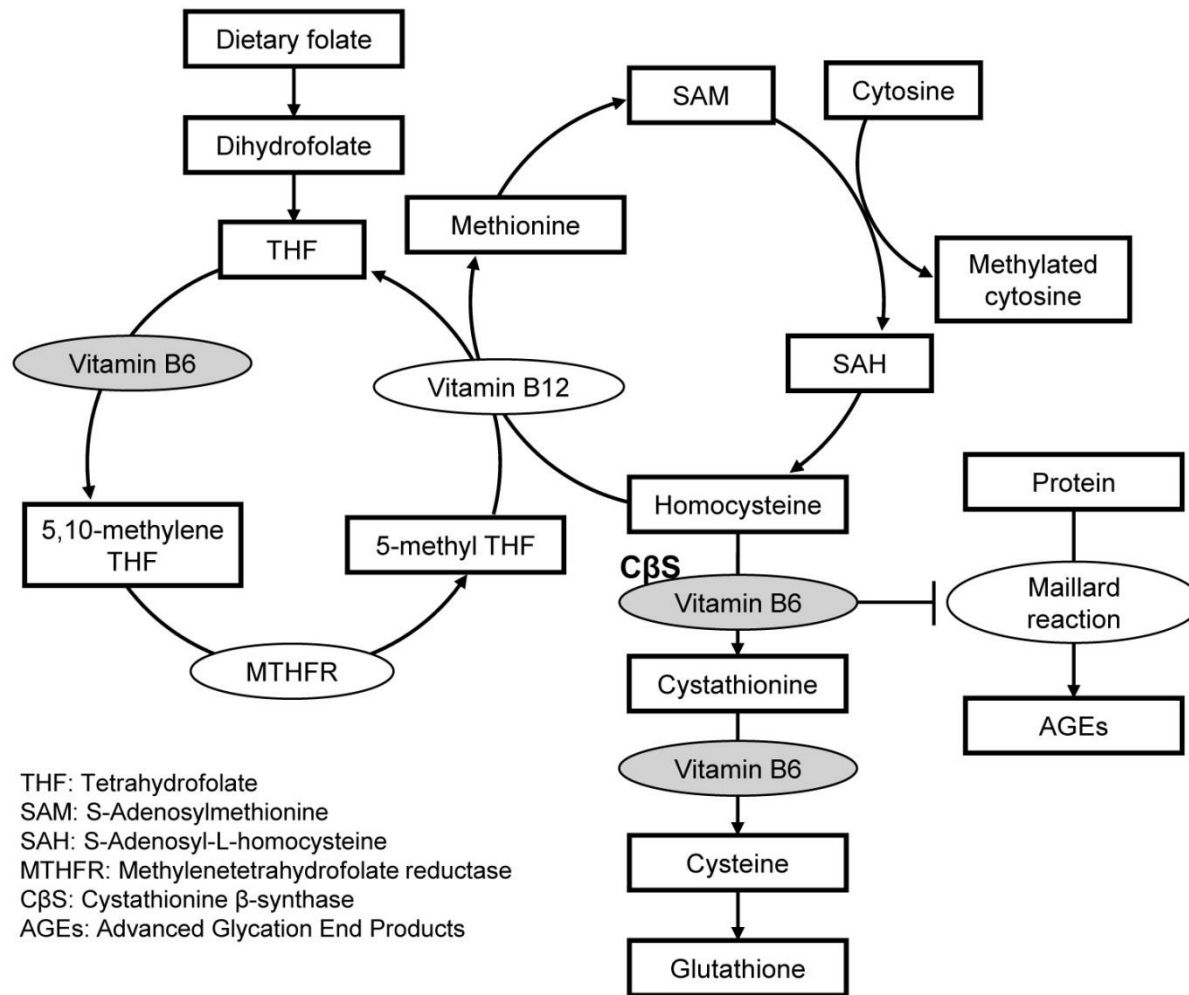
Funnel plot of a meta-analysis of case-control studies between serum pyridoxal levels and schizophrenia

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Supplementary Figure 3

One-carbon metabolism components related to vitamin B6.

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Supplementary Table 1 Case-control sample sets of genetic association studies between rs4654748 and schizophrenia

Population	Sample	Schizophrenia Cases		Healthy Controls		Definition of schizophrenia	Genotyping method
		N	Mean Age	N	Mean Age		
Japanese	Tokushima University	936	59.1±9.6	2440	41.8±12.3	DSM-IV	TaqMan
	Osaka University	451	37.6±12.8	602	34.1±12.7	DSM-IV	TaqMan
	Fujita Health University	1258	46.3±14.9	828	42.1±13.0	DSM-IV	Genotyping array
	Riken	2004	48.1±14.4	2170	42.4±14.2	DSM-IV	TaqMan
Total N		4649		6040			

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Supplementary Table 2 Association studies between serum pyridoxal levels and schizophrenia

Author	Study area	Schizophrenia Cases			Healthy Controls			Material	Measurement	Unit	Diagnosis
		Mean concentration	sd	N	Mean concentration	sd	N				
Sannohe T., 2017	Japan	8.5	7.6	137	11.8	6.3	45	serum	HPLC	ng/mL	DSM-IV
Miyashita M et al., 2014	Japan	7.7	4.9	156	10.2	5.5	221	serum	HPLC	ng/mL	DSM-IV
Katsuta N et al., 2014	Japan	8.8	6.9	137	11.7	6.4	47	serum	HPLC	ng/mL	DSM-IV
Arai M et al., 2010	Japan	7.5	7.6	45	11.1	7.3	61	serum	HPLC	ng/mL	DSM-IV
This Study	Japan	7.0	9.8	365	13.4	13.9	911	serum	HPLC	ng/mL	DSM-IV

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Supplementary Table 3 Results of each genetic association study between rs4654748 and schizophrenia

Sample		C/C	C/T	T/T	Hardy-Weinberg p-value	Genotype p-value of Chi-squared test	C Allele	T Allele	Allele p-value of Chi-squared test	Calling Rate
Tokushima University	schizophrenia	275	432	216	0.07	0.17	982	864	0.74	99.0%
	control	666	1221	533	0.55		2553	2287		
Osaka University	schizophrenia	127	213	109	0.29	0.84	467	431	0.55	99.8%
	control	179	284	139	0.20		642	562		
Fujita Health University	schizophrenia	331	636	291	0.67	0.64	1298	1218	0.37	100%
	control	228	422	178	0.51		878	778		
Riken	schizophrenia	567	970	457	0.28	0.76	2104	1884	0.46	99.5%
	control	595	1054	511	0.29		2244	2076		

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Supplementary Table 4 Results of meta-analyses of genetic association studies between rs4654748 and schizophrenia

Model	OR	95% CI	p value
Recessive (TT/CT vs CC)	1.03	0.94-1.12	0.51
Dominant (TT vs CT/CC)	0.97	0.88-1.07	0.54
Codominant (TT vs CC)	1.00	0.89-1.12	0.97
Codominant (CT vs CC)	1.04	0.95-1.15	0.36
Allelic (T vs C)	1.00	0.95-1.06	0.96