

## Title page

Meta-analysis of the interaction between serotonin transporter promoter variant, stress, and posttraumatic stress disorder

Mingzhe Zhao<sup>1,2</sup>, Jiarun Yang<sup>1,2</sup>, Wenbo Wang<sup>1</sup>, Jingsong Ma<sup>1</sup>, Jian Zhang<sup>1</sup>, Xueyan Zhao<sup>1</sup>, Xiaohui Qiu<sup>1</sup>, Xiuxian Yang<sup>1</sup>, Zhengxue Qiao<sup>1</sup>, Xuejia Song<sup>1</sup>, Lin Wang<sup>1</sup>, Shixiang Jiang<sup>1</sup>, Erying Zhao<sup>1</sup>, Yanjie Yang<sup>1,\*</sup>

<sup>1</sup> No. 157, Baojian Road, Nangang District, Harbin 150081, China.

Tel: +86 451 87502859;

<sup>2</sup> These authors contributed equally to this work.

\*Correspondence: Professor Yanjie Yang, Psychology Department of the Public Health Institute of Harbin Medical University, Heilongjiang Province, China.

Address: No. 157, Baojian Road, Nangang District, Harbin 150081, China. Tel: +86 451 87502859; Fax: +86 451 87502885

E-mail: [yanjie1965@163.com](mailto:yanjie1965@163.com)

Mingzhe Zhao	E-mail: 1018625419@qq.com	Xiuxian Yang	E-mail: 125020874@qq.com
Jiarun Yang	E-mail: 1287991708@qq.com	Zhengxue Qiao	E-mail: 83571560@qq.com
Wenbo Wang	E-mail: 1356517578@qq.com	Xuejia Song	E-mail: 4874452@qq.com
Jingsong Ma	E-mail: 13945105753@126.com	Lin Wang	E-mail: 466373279@qq.com
Jian Zhang	E-mail: tengteng198312@126.com	Shixiang Jiang	E-mail: 32871873@qq.com
Xueyan Zhao	E-mail: 1375970357@qq.com	Shixiang Jiang	E-mail: 32871873@qq.com
Xiaohui Qiu	E-mail: qiuxiaohui@foxmail.com		

**Supplementary Table S1.** Studies included in the meta-analysis of the interaction between 5-HTTLPR polymorphism, life stress, and PTSD

Study	Items (+/-)	Objectives and hypothesis clearly stated	Clear eligibility criteria for study participants	Clear definition of all variables	Statistical methods replicable	Assessment of HWE	Assessment of ethnicity	Mixed ethnicities addressed statistically	Sufficient descriptive data (e.g., age, sex, etc.)	Genotype frequencies stated	Sample in HWE	Population stratification
Kilpatrick et al., 2007		+	-	+	+	-	+	+	+	+	-	+
Grabe et al., 2009		+	-	+	+	+	+	Unnecessary	+	+	+	-
Xie et al., 2009		+	+	+	+	-	+	Unnecessary	+	+	-	Unnecessary
Kolassa et al., 2009		-	-	+	+	+	+	Unnecessary	+	+	+	Unnecessary
Holman et al., 2011		+	+	+	+	+	+	Unnecessary	+	+	+	Unnecessary
Mercer et al., 2012		+	-	+	+	+	+	+	+	+	+	+
Xie et al., 2012		+	+	+	+	-	+	Unnecessary	+	+	-	Unnecessary
Wald et al., 2013		+	-	+	+	-	+	+	+	+	-	+
Pietrzak et al., 2013		+	+	+	+	+	+	-	+	+	+	+
La Greca et al., 2013		+	-	+	+	-	+	-	+	+	+	-
Walsh et al., 2014		+	-	+	+	+	-	-	+	+	+	-
Telch et al., 2015		+	+	+	+	-	+	+	+	+	-	+
Tian et al., 2015		+	-	+	+	-	-	Unnecessary	+	+	-	Unnecessary
Drevo et al., 2016		+	+	+	+	-	-	-	+	+	-	-

Abbreviations: HWE, Hardy–Weinberg equilibrium; 5-HTTLPR, serotonin transporter promoter variant.

**Supplementary Table S2.** The demographic information for Case group and Control group of studies on the interaction between 5-HTTLPR, life stress, and PTSD included in the meta-analysis.

study	Case group			Control group		
	No. of participants	Female, N(%)	Age, mean(years)	No. of participants	Female, N(%)	Age, mean(years)
Kilpatrick et al., 2007	19	-	-	537	-	-
Grabe et al., 2009	67	64.2	57.9	1596	49.3	57.6
Xie et al., 2009	229	41.9	39.3	1023	54.7	38.9
Kolassa et al., 2009	331	-	-	77	-	-
Holman et al., 2011	303	52.4	51.77	468	-	-
Mercer et al., 2012	66	100	20.3	138	100	20
Xie et al., 2012	719	-	-	5711	-	-
Wald et al., 2013	-	-	-	-	-	-
Pietrzak et al., 2013	13	-	-	136	-	-
La Greca et al., 2013	-	-	-	-	-	-
Walsh et al., 2014	205	-	-	477	-	-
Telch et al., 2015	-	-	-	-	-	-
Tian et al., 2015	64	-	-	119	-	-
Drevo et al., 2016	-	-	-	-	-	-

-, no report in the study.