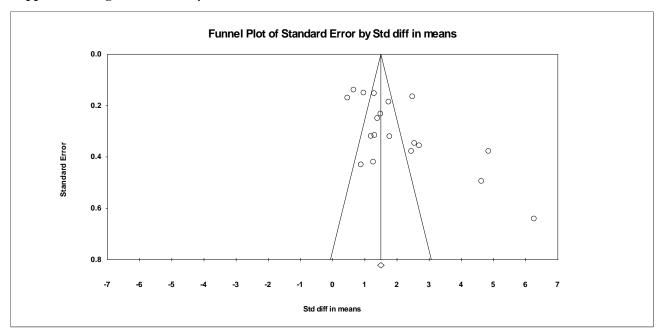
Supplemental table 1. Methodological Quality Assessment by the Newcastle-Ottawa Scale

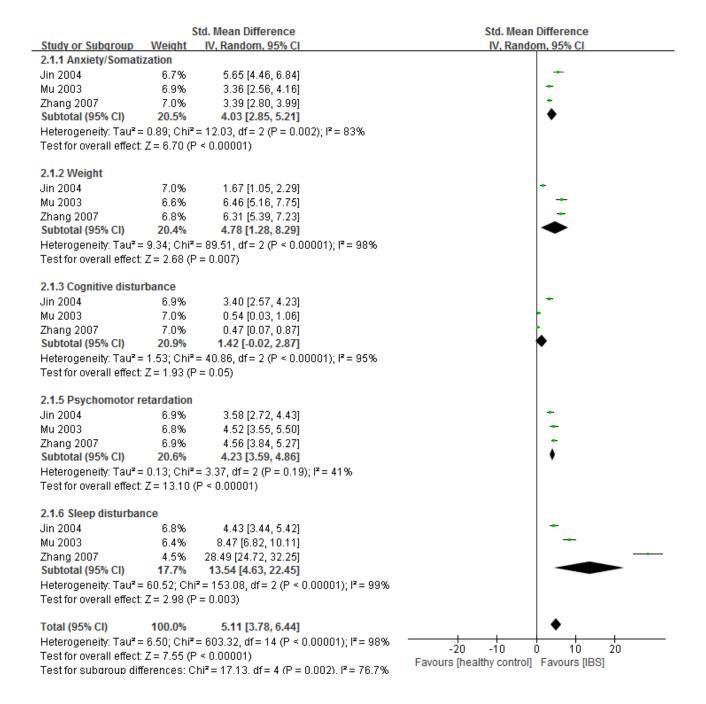
	Selection				Comparability			Exposure		
Studies	The case definition is adequate with independent validation	Represen tativeness of cases	Community Controls	Controls with no history of disease	Cases and controls with comparable gender	Cases and controls with comparable age	Ascertain ment of outcome	Same method of ascertainment for cases and controls	Similar non-respons e rate for both groups	Total quality score
Akkus et al, 2004	1	1	0	1	0	1	1	1	1	7
Chen and Zou et al, 2007	1	1	0	1	0	0	1	1	1	6
Chen and Wang et al, 2007	1	1	0	1	1	1	1	1	1	8
Gonçalves de Medeiros et al, 2012	1	1	0	1	0	0	1	1	1	6
Hao al, 2015	1	1	0	1	1	1	1	1	1	8
Jin et al, 2004	1	1	0	0	0	0	1	1	1	5
Kilkens et al, 2013	1	1	0	1	1	1	1	1	1	8
Li and Chen et al, 2015	1	1	0	0	1	1	1	1	1	7
Li et al, 2015	1	1	0	1	1	1	1	1	1	8
Liu et al, 2013	1	1	0	0	1	1	1	1	1	7
Mao et al, 2010	1	1	0	1	0	0	1	1	1	6
Mu et al, 2003	1	1	0	0	0	0	1	1	1	5
Shi et al, 2012	1	1	0	1	1	1	1	1	1	8
Shi and Zhang et al, 2012	1	1	0	1	0	0	1	1	1	6
Song et al, 2015	1	1	0	0	1	1	1	1	1	7
Tian et al, 2011	1	0	0	1	1	1	1	1	1	7
Tosic-Golubovic et al, 2010	1	1	1	0	1	1	1	1	1	8
Wan et al, 2005	1	1	0	0	0	1	1	1	1	6
Wang et al, 2012	1	1	0	1	0	0	1	1	1	6
Wang et al, 2014	1	1	0	1	1	1	1	1	1	8
Xu et al, 2012	1	1	0	1	1	1	1	1	1	8

Xu et al, 2014	1	1	0	0	0	0	1	1	1	5
Xu et al, 2017	1	1	0	1	1	1	1	1	1	8
Zhang et al, 2007	1	0	0	1	0	0	1	1	1	5

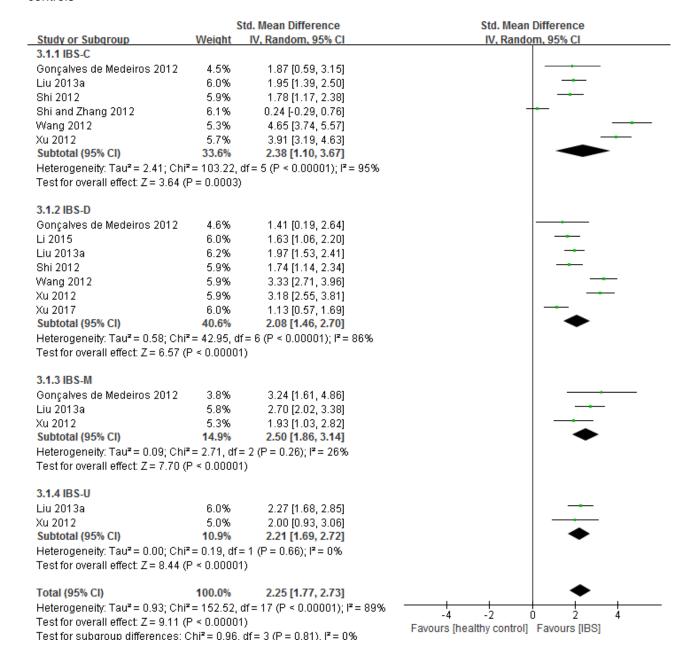
Supplemental figure 1. Funnel plot



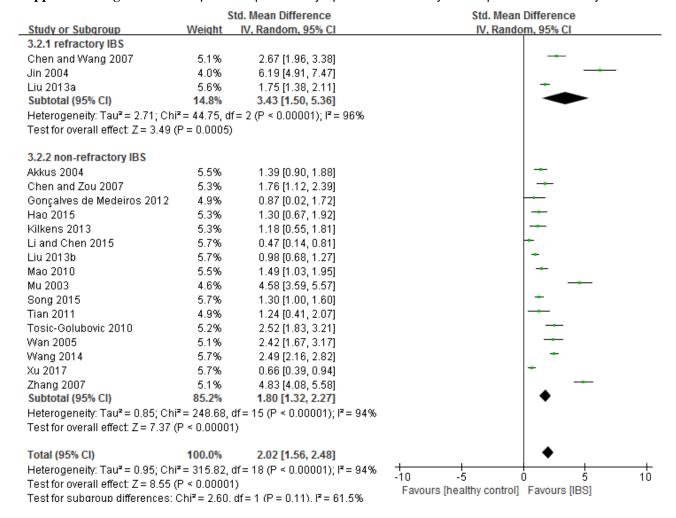
Supplemental figure 2. Depression symptoms of IBS patients: forest plot of HAMD factors

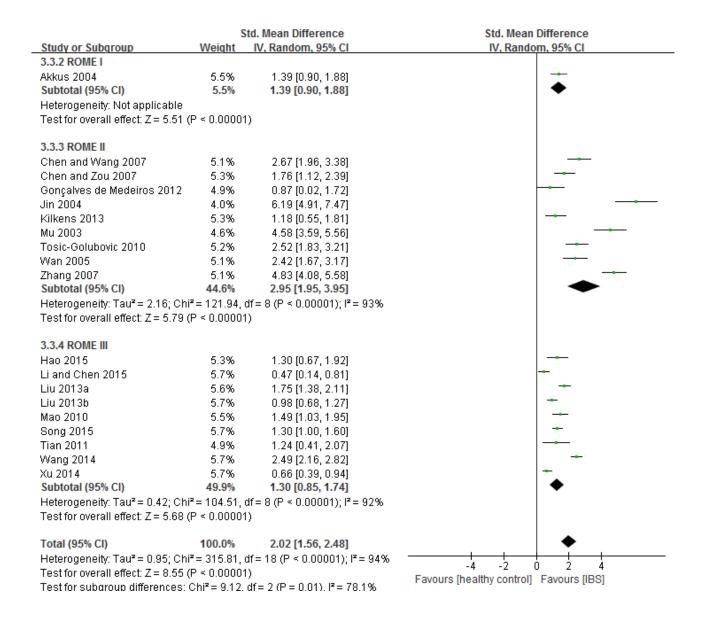


Supplemental figure 3. Forest plot of depressive symptoms in patients with different IBS subtypes vs. healthy controls

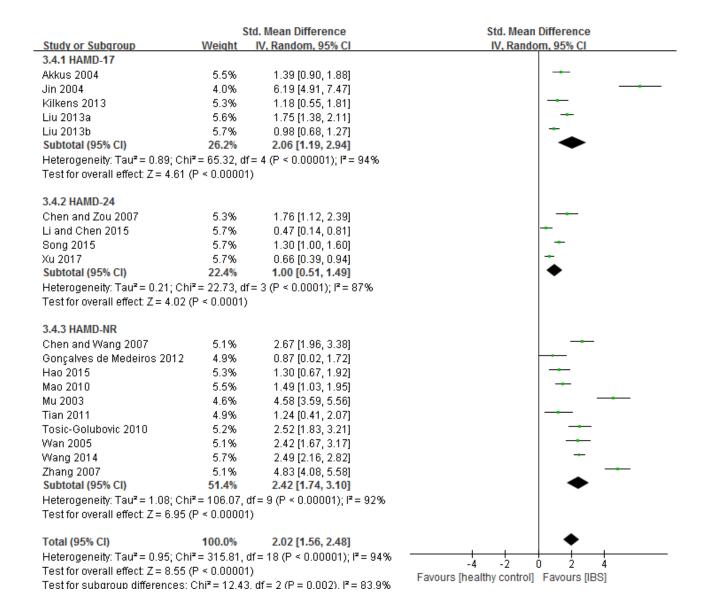


Supplemental figure 4. Forest plot of depressive symptoms in refractory of IBS patients vs. healthy controls

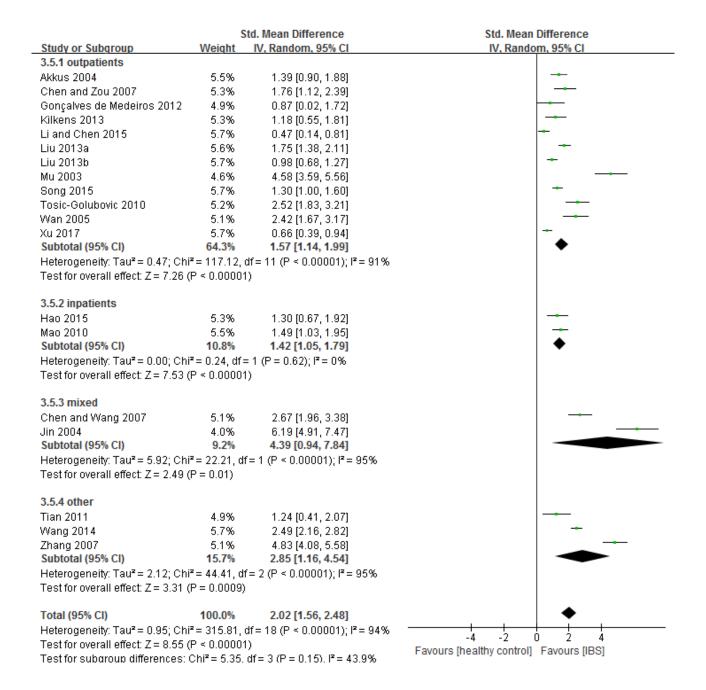




Supplemental figure 6. Forest plot of depressive symptoms assessed by different HAMD versions in IBS patients



Supplemental figure 7. Forest plot of depressive symptoms of IBS patients from different sources



Supplemental figure 8. Forest plot of depressive sympotms in IBS patients in different countries

	S	itd. Mean Difference	Std. Mean Difference			
Study or Subgroup	Weight	IV, Random, 95% CI	IV, Random, 95% CI			
3.6.1 China						
Chen and Wang 2007	5.1%	2.67 [1.96, 3.38]				
Chen and Zou 2007	5.3%	1.76 [1.12, 2.39]				
Hao 2015	5.3%	1.30 [0.67, 1.92]				
Jin 2004	4.0%	6.19 [4.91, 7.47]				
Li and Chen 2015	5.7%	0.47 [0.14, 0.81]	-			
Liu 2013a	5.6%	1.75 [1.38, 2.11]	-			
Liu 2013b	5.7%	0.98 [0.68, 1.27]	-			
Mao 2010	5.5%	1.49 [1.03, 1.95]	-			
Mu 2003	4.6%	4.58 [3.59, 5.57]				
Song 2015	5.7%	1.30 [1.00, 1.60]	+			
Tian 2011	4.9%	1.24 [0.41, 2.07]				
Wan 2005	5.1%	2.42 [1.67, 3.17]	_ 			
Wang 2014	5.7%	2.49 [2.16, 2.82]	-			
Xu 2014	5.7%	0.66 [0.39, 0.94]	+			
Zhang 2007	5.1%	4.83 [4.08, 5.58]				
Subtotal (95% CI)	79.2%	2.17 [1.62, 2.71]	•			
Heterogeneity: Tau² = 1.07; Ch	$i^2 = 304.04, c$	df = 14 (P < 0.00001); I ^z = 95%				
Test for overall effect: $Z = 7.75$	(P < 0.00001	1)				
3.6.2 other countries						
Akkus 2004	5.5%	1.39 [0.90, 1.88]				
Gonçalves de Medeiros 2012	4.9%	0.87 [0.02, 1.72]				
Kilkens 2013	5.3%	1.18 [0.55, 1.81]				
Tosic-Golubovic 2010	5.2%	2.52 [1.83, 3.21]				
Subtotal (95% CI)	20.8%	1.50 [0.86, 2.15]	•			
Heterogeneity: Tau² = 0.32; Ch	i²= 11.76, df					
Test for overall effect: Z = 4.57	(P < 0.00001	1)				
Total (95% CI)	100.0%	2.02 [1.56, 2.48]	•			
Heterogeneity: Tau² = 0.95; Ch	i² = 315.82.∍					
Test for overall effect: Z = 8.55		-4 -2 0 2 4				
Test for subaroup differences:		Favours [healthy control] Favours [IBS]				