

**Table S1. Results of checking the inconsistency reported in the original analyses for smoking cessation data. Adapted from Lu and Ades, 2006 [11], and Dias et al., 2010 [16].**

Comparisons	Effect size estimate (sd)			P- value [16]
	MTC [11]	Direct [16]	Indirect [16]	
NI versus SH	0.449 (0.441)	0.342 (0.55)	0.706 (0.635)	0.65
NI versus IC	0.860 (0.248)	0.845 (0.254)	0.673 (0.679)	0.79
NI versus GC	1.088 (0.516)	1.360 (0.829)	1.108 (0.539)	0.81
SH versus IC	0.258 (0.519)	-0.052 (0.702)	0.519 (0.503)	0.49
SH versus GC	0.636 (0.546)	0.676 (0.698)	0.511 (0.684)	0.85
IC versus GC	0.226 (0.545)	-0.085(0.479)	1.708 (0.893)	0.07
Variance of inconsistency factor ( $\sigma_{\omega}^2$ )	0.61			
Variance of heterogeneity ( $\tau^2$ )	0.78			
$P(\sigma_{\omega}^2 > \tau^2)$	0.226			

NI, no intervention; SH, self-help; IC, individual counseling; GC, group counseling; P- value, Bayesian p-value measuring agreement between direct and indirect estimates for each split node; MTC, mixed treatment comparison;

**Table S2. Simulated datasets**

Standard error	Study	Comparison	$I^2$		
			0%	40%	70%
			Effect size	Effect size	Effect size
1	1	A vs B	0.5	-1	-1.7
	2	A vs B	0.5	-0.5	-1
	3	A vs B	0.5	0.5	0.5
	4	A vs B	0.5	1.5	2
	5	A vs B	0.5	2	2.7
	6	A vs C	1	-0.5	-1.2
	7	A vs C	1	0	-0.5
	8	A vs C	1	1	1
	9	A vs C	1	2	2.5
	10	A vs C	1	2.5	3.2
2	1	A vs B	0.5	-2.5	-4
	2	A vs B	0.5	-1.5	-2
	3	A vs B	0.5	0.5	0.5
	4	A vs B	0.5	2.5	3
	5	A vs B	0.5	3.5	5
	6	A vs C	1	-2	-3.5
	7	A vs C	1	-1	-1.5
	8	A vs C	1	1	1
	9	A vs C	1	3	3.5
	10	A vs C	1	4	5.5
$2\sqrt{2}$	1	A vs B	0.5	-4	-5.5
	2	A vs B	0.5	-2	-3.5
	3	A vs B	0.5	0.5	0.5
	4	A vs B	0.5	3	4.5
	5	A vs B	0.5	5	6.5
	6	A vs C	1	-3.5	-5
	7	A vs C	1	-1.5	-3
	8	A vs C	1	1	1
	9	A vs C	1	3.5	5
	10	A vs C	1	5.5	7

**Table S3. Results of a network meta-analysis using the complete network and derived star-shaped network for the smoking cessation data**

	Parameter	Complete network		Star-shaped network	
		Estimate (95% CrI)	P(best)	Estimate (95% CrI)	P(best)
Treatment					
A: NI	-		0.00		0.00
B: SH	$d_{AB}$	0.43 (-0.38, 1.25)	0.04	0.33 (-0.73, 1.39)	0.02
C: IC	$d_{AC}$	0.73 (0.26, 1.20)	0.10	0.72 (0.19, 1.25)	0.04
D: GC	$d_{AD}$	1.38 (0.25, 2.50)	0.86	3.52 (0.12, 6.93)	0.94
Heterogeneity					
	$\tau$	0.78		0.85	

CrI, credible interval; NI, no intervention; SH, self-help; IC, individual counseling; GC, group counseling.