Title	Identification of behaviour change techniques in deprescribing interventions: a systematic review and meta-analysis
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Supplementary File - Figures S1-S5

Study or Subgroup	Experimental Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Crotty 2004	5.5	3.05	32	5.7	2.47	39	9.4%	-0.20 [-1.51, 1.11]
Frankenthal 2014	7.3	2.7	160	8.9	3.2	146	14.9%	-1.60 [-2.27, -0.93]
Garcia-Gollarte 2014	3.64	4.05	185	4.48	4.97	200	12.8%	-0.84 [-1.74, 0.06]
Hanlon 1996	6.9	2.6	86	7.9	3.3	83	12.8%	-1.00 [-1.90, -0.10]
Milos 2013	10.8	5.5	171	12.1	6.5	174	9.7%	-1.30 [-2.57, -0.03]
Pope 2011	11.09	4.26	110	11.5	3.95	115	11.3%	-0.41 [-1.48, 0.66]
Saltvedt 2005	4.26	2.75	119	4.25	2.25	110	15.1%	0.01 [-0.64, 0.66]
Williams 2004	5.6	1.89	57	7.7	2.67	76	13.9%	-2.10 [-2.88, -1.32]
Total (95% CI)			920			943	100.0%	-0.96 [-1.53, -0.38]

Heterogeneity: Tau² = 0.46; Chi² = 23.06, df = 7 (P = 0.002); I² = 70%
Test for overall effect: Z = 3.28 (P = 0.001)

Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (first time point of follow-up)
(F) Incomplete outcome data (last time point for follow-up)
(G) Selective reporting (reporting bias)
(H) Other bias

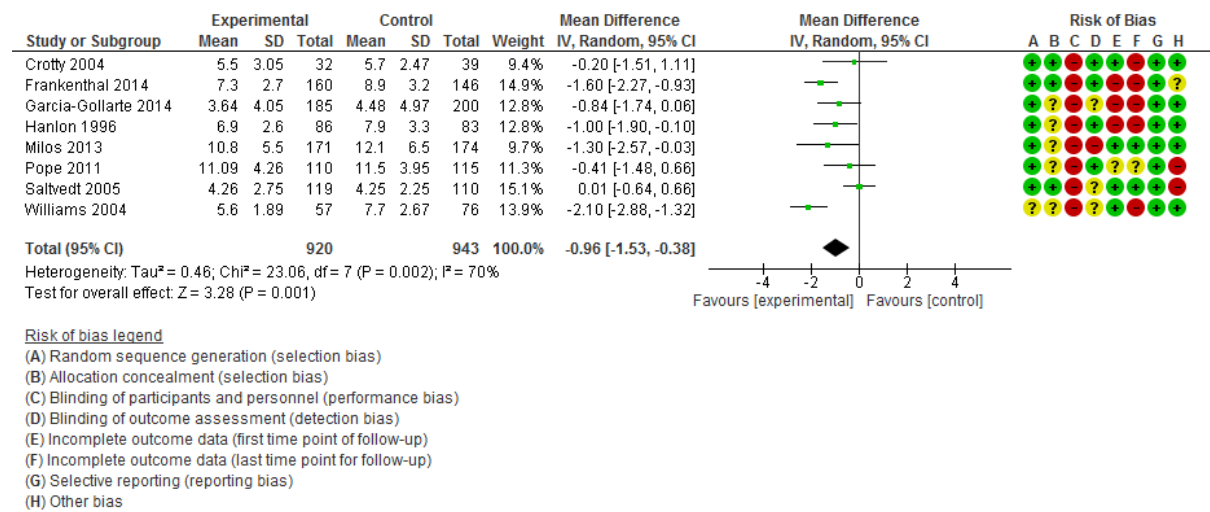*Figure S1 Mean number of drugs per patient post-intervention comparing experimental (intervention) group and control group.*

Study or Subgroup	Mean Difference	SE	Experimental Total	Control Total	Weight	Mean Difference IV, Random, 95% CI
2.1.1 Patient-centred interventions						
Lenaghan 2007	-0.87	0.4	59	55	9.1%	-0.87 [-1.65, -0.09]
Potter 2016	-2	0.15	35	32	11.1%	-2.00 [-2.29, -1.71]
Williams 2004	-0.98	0.19	57	76	10.9%	-0.98 [-1.35, -0.61]
Zermansky 2001	-0.2	0.08	576	549	11.4%	-0.20 [-0.36, -0.04]
Subtotal (95% CI)			727	712	42.4%	-1.01 [-2.00, -0.03]

Heterogeneity: Tau² = 0.95; Chi² = 115.96, df = 3 (P < 0.00001); I² = 97%
Test for overall effect: Z = 2.02 (P = 0.04)

Study or Subgroup	Mean Difference	SE	Experimental Total	Control Total	Weight	Mean Difference IV, Random, 95% CI
2.1.2 Healthcare professional-centred interventions						
Crotty 2004	-0.39	0.46	32	39	8.5%	-0.39 [-1.29, 0.51]
Garcia-Gollarte 2014	-1.2	0.58	185	200	7.4%	-1.20 [-2.34, -0.06]
Hanlon 1996	-0.4	0.59	86	83	7.3%	-0.40 [-1.56, 0.76]
Milos 2013	-0.6	0.79	171	174	5.7%	-0.60 [-2.15, 0.95]
Pope 2011	-0.88	0.35	110	115	9.6%	-0.88 [-1.57, -0.19]
Saltvedt 2005	0.01	0.48	119	110	8.4%	0.01 [-0.93, 0.95]
Vinks 2009	-0.41	0.22	87	87	10.7%	-0.41 [-0.84, 0.02]
Subtotal (95% CI)			790	808	57.6%	-0.51 [-0.80, -0.22]

Heterogeneity: Tau² = 0.00; Chi² = 4.03, df = 6 (P = 0.67); I² = 0%
Test for overall effect: Z = 3.44 (P = 0.0006)

Total (95% CI)			1517	1520	100.0%	-0.74 [-1.26, -0.22]

Heterogeneity: Tau² = 0.61; Chi² = 120.74, df = 10 (P < 0.00001); I² = 92%
Test for overall effect: Z = 2.80 (P = 0.005)
Test for subgroup differences: Chi² = 0.93, df = 1 (P = 0.34), I² = 0%

Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (first time point of follow-up)
(F) Incomplete outcome data (last time point for follow-up)
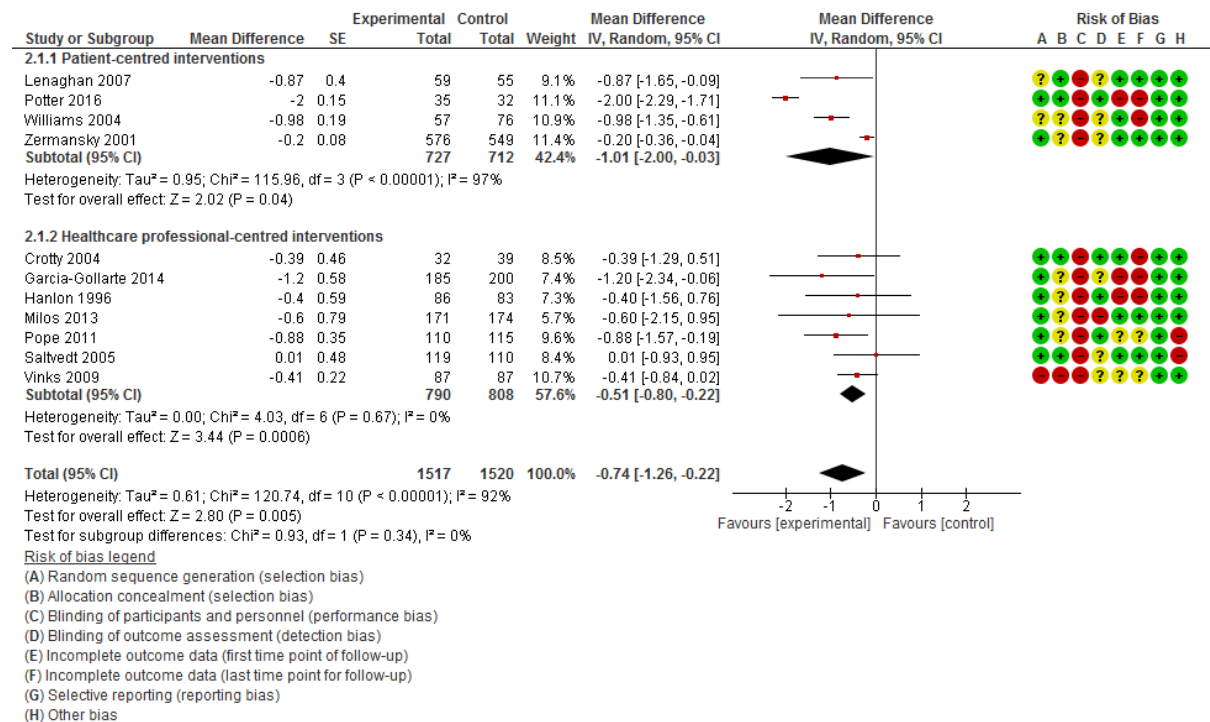(G) Selective reporting (reporting bias)
(H) Other bias

Figure S2 Subgroup analysis on target person (patient or healthcare professional) for mean difference in the change in number of drugs per patient.

Figure S3

Study or Subgroup	Mean Difference	SE	Experimental Total	Control Total	Weight	Mean Difference IV, Random, 95% CI
2.5.1 Low RoB random sequence						
Potter 2016	-2	0.15	35	32	11.1%	-2.00 [-2.29, -1.71]
Garcia-Gollarte 2014	-1.2	0.58	185	200	7.4%	-1.20 [-2.34, -0.06]
Pope 2011	-0.88	0.35	110	115	9.6%	-0.88 [-1.57, -0.19]
Milos 2013	-0.6	0.79	171	174	5.7%	-0.60 [-2.15, 0.95]
Hanlon 1996	-0.4	0.59	86	83	7.3%	-0.40 [-1.56, 0.76]
Crotty 2004	-0.39	0.46	32	39	8.5%	-0.39 [-1.29, 0.51]
Zermansky 2001	-0.2	0.08	576	549	11.4%	-0.20 [-0.36, -0.04]
Saltvedt 2005	-0.01	0.48	119	110	8.4%	-0.01 [-0.95, 0.93]
Subtotal (95% CI)			1314	1302	69.4%	-0.73 [-1.50, 0.03]

Heterogeneity: Tau² = 1.01; Chi² = 115.65, df = 7 (P < 0.00001); I² = 94%
Test for overall effect: Z = 1.87 (P = 0.06)

Study or Subgroup	Mean Difference	SE	Experimental Total	Control Total	Weight	Mean Difference IV, Random, 95% CI
2.5.2 High/unclear RoB random sequence						
Williams 2004	-0.98	0.19	57	76	10.9%	-0.98 [-1.35, -0.61]
Lenaghan 2007	-0.87	0.4	59	55	9.1%	-0.87 [-1.65, -0.09]
Vinks 2009	-0.41	0.22	87	87	10.7%	-0.41 [-0.84, 0.02]
Subtotal (95% CI)			203	218	30.6%	-0.74 [-1.14, -0.34]

Heterogeneity: Tau² = 0.06; Chi² = 3.94, df = 2 (P = 0.14); I² = 49%
Test for overall effect: Z = 3.64 (P = 0.0003)

Total (95% CI)			1517	1520	100.0%	-0.74 [-1.26, -0.23]

Heterogeneity: Tau² = 0.61; Chi² = 120.63, df = 10 (P < 0.00001); I² = 92%
Test for overall effect: Z = 2.81 (P = 0.005)
Test for subgroup differences: Chi² = 0.00, df = 1 (P = 0.98), I² = 0%

Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (first time point of follow-up)
(F) Incomplete outcome data (last time point for follow-up)
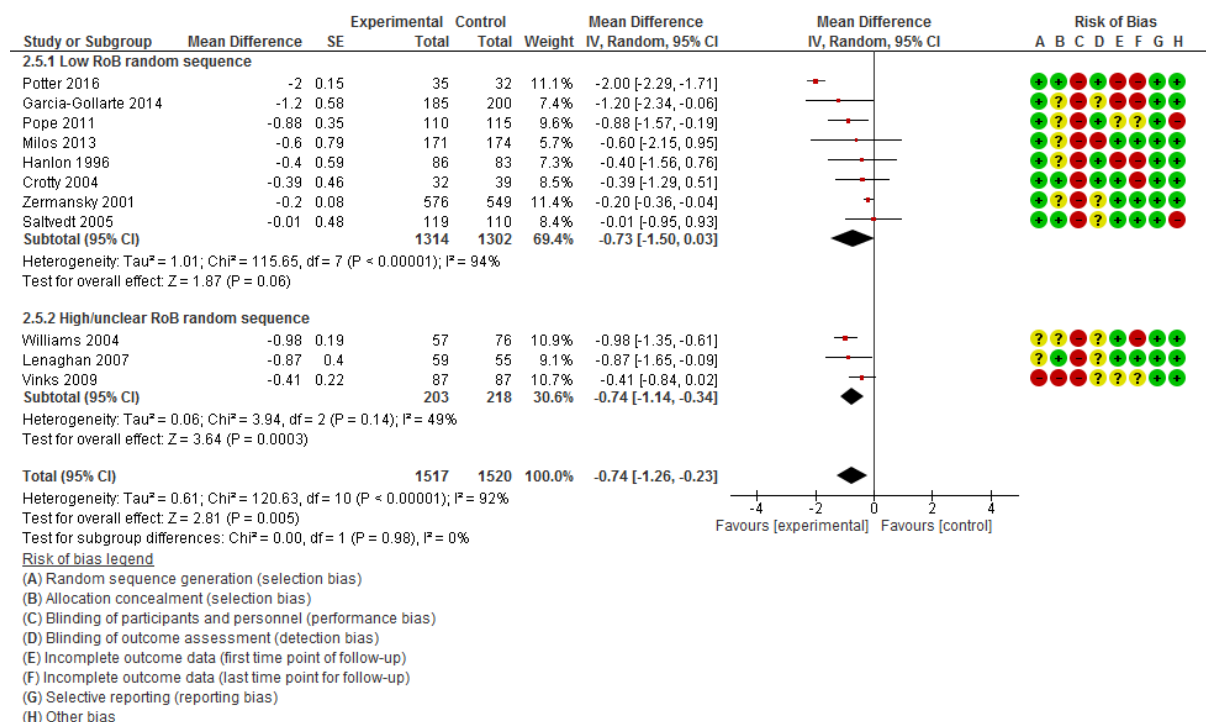(G) Selective reporting (reporting bias)
(H) Other bias

Figure S3 Subgroup analysis on risk of bias assessment (random sequence generation) for mean difference in the change in number of drugs per patient.
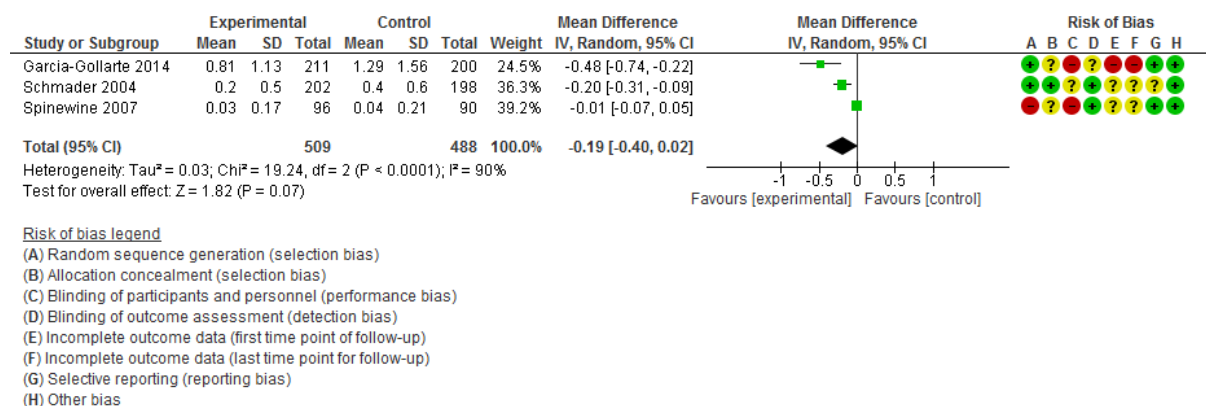
Figure S4

Study or Subgroup	Experimental Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Garcia-Gollarte 2014	0.81	1.13	211	1.29	1.56	200	24.5%	-0.48 [-0.74, -0.22]
Schmader 2004	0.2	0.5	202	0.4	0.6	198	36.3%	-0.20 [-0.31, -0.09]
Spinewine 2007	0.03	0.17	96	0.04	0.21	90	39.2%	-0.01 [-0.07, 0.05]
Total (95% CI)			509			488	100.0%	-0.19 [-0.40, 0.02]

Heterogeneity: Tau² = 0.03; Chi² = 19.24, df = 2 (P < 0.0001); I² = 90%
Test for overall effect: Z = 1.82 (P = 0.07)

Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (first time point of follow-up)
(F) Incomplete outcome data (last time point for follow-up)
(G) Selective reporting (reporting bias)
(H) Other bias

Figure S4 Mean difference in the number of inappropriate drugs per participant comparing experimental (intervention) group and control group.

Figure S5

Study or Subgroup	Experimental Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Crotty 2004	3.5	6.6	32	3.7	6.3	39	17.2%	-0.20 [-3.22, 2.82]
Gallagher 2011	3	2.6	190	8	7.4	192	22.7%	-5.00 [-6.11, -3.89]
Hanlon 1996	12.8	7.2	105	16.7	7.1	103	20.6%	-3.90 [-5.84, -1.96]
Schmader 2004	5.3	4.9	202	9.6	8.2	198	22.2%	-4.30 [-5.63, -2.97]
Spinewine 2007	7.1	7.5	96	19.3	12.5	90	17.3%	-12.20 [-15.19, -9.21]
Total (95% CI)			625			622	100.0%	-5.04 [-7.40, -2.68]

Heterogeneity: Tau² = 6.05; Chi² = 33.97, df = 4 (P < 0.00001); I² = 88%
Test for overall effect: Z = 4.19 (P < 0.0001)

Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (first time point of follow-up)
(F) Incomplete outcome data (last time point for follow-up)
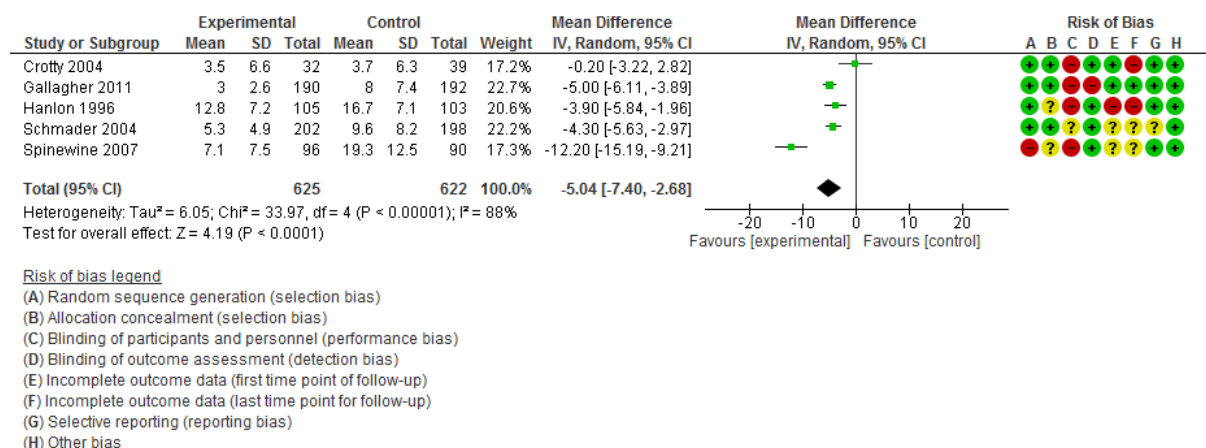(G) Selective reporting (reporting bias)
(H) Other bias

Figure S5 Mean difference in the change in MAI score per participant comparing experimental (intervention) group and control group.