

Supplementary figure 1 Outcome of risk of bias assessment by paper

	Random sequence generation	Allocation concealment	Blinding of outcome assessment	Attrition bias (incomplete outcome data)	Selective reporting
Bailey 1990	+	+	-	+	
Berger 2005	○	○	-	-	+
Brown 2009	+	+	+	○	+
Dilorio 2003	+	+	+	+	+
Dilorio 2008	○	○	-	+	+
Farmer 2012	+	+	+	+	+
George 2010	+	+	-	-	○
Golin 2006	○	○	+	○	+
Hovell 2003	○	+	+	+	-
Konkle-Parker 2012	○	○	+	-	+
Maneesriwongul 2012	-	-	-	+	+

	Random sequence generation	Allocation concealment	Blinding of outcome assessment	Attrition bias (incomplete outcome data)	Selective reporting
Pradier 2003	○	○	-	+	+
Put 2003	+	+	-	+	+
Remien 2005	+	+	+	+	+
Safren 2001	○	○	-	○	+
Sheeran 1999	-	+	+	-	+
Simoni 2009	+	+	+	+	+
Smith 2003	○	○	+	-	+
Solomon 2012	+	+	+	-	+
Tuldra 2000	○	○	+	+	+
Van Es 2001	+	+	-	○	+
Wagner 2006	○	○	+	○	+
	+	○	+	+	+
	-	-	-	+	+

Murphy 2002					
Ogedegbe 2008					

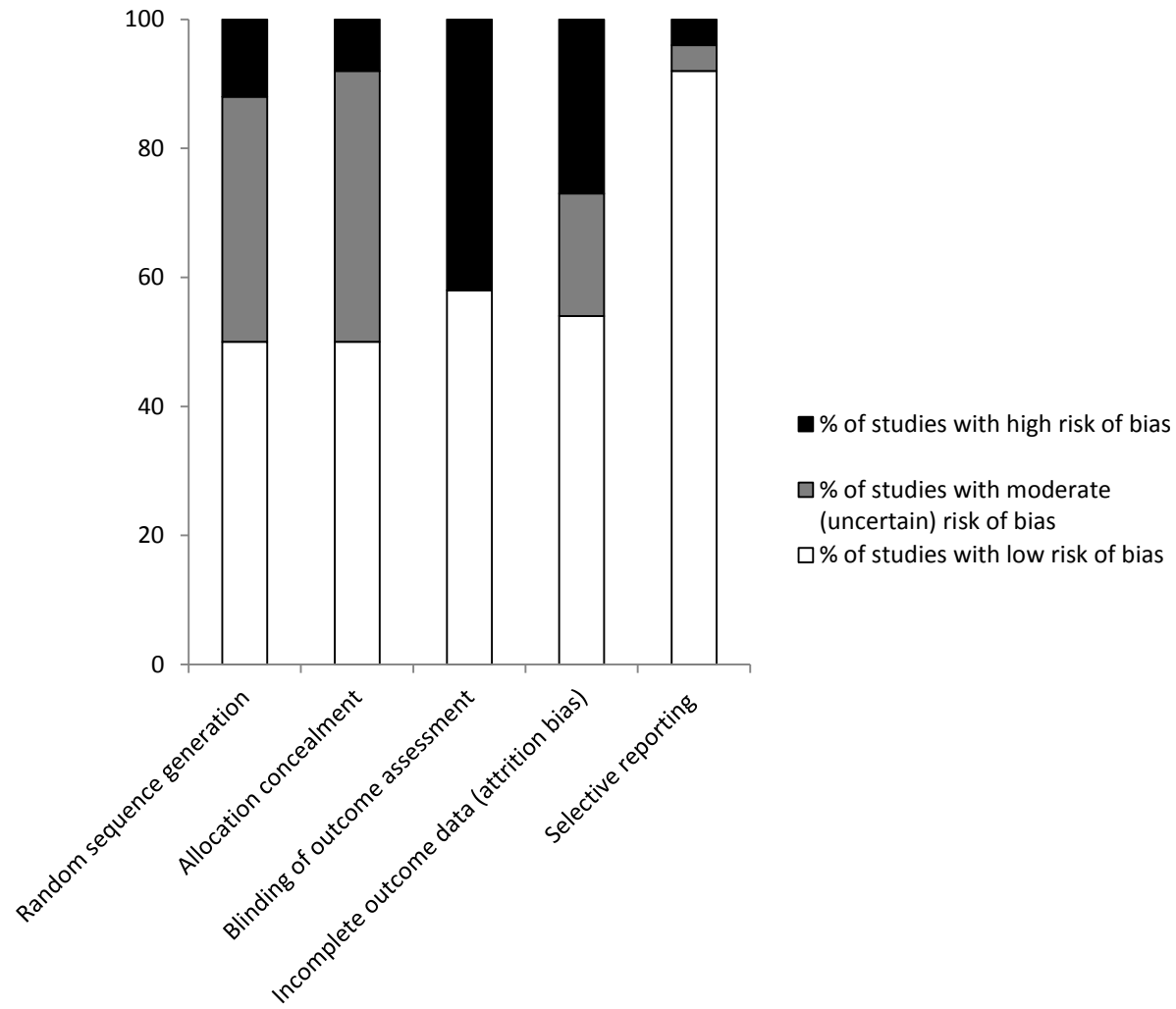
Weber 2004					
Williams 2012					



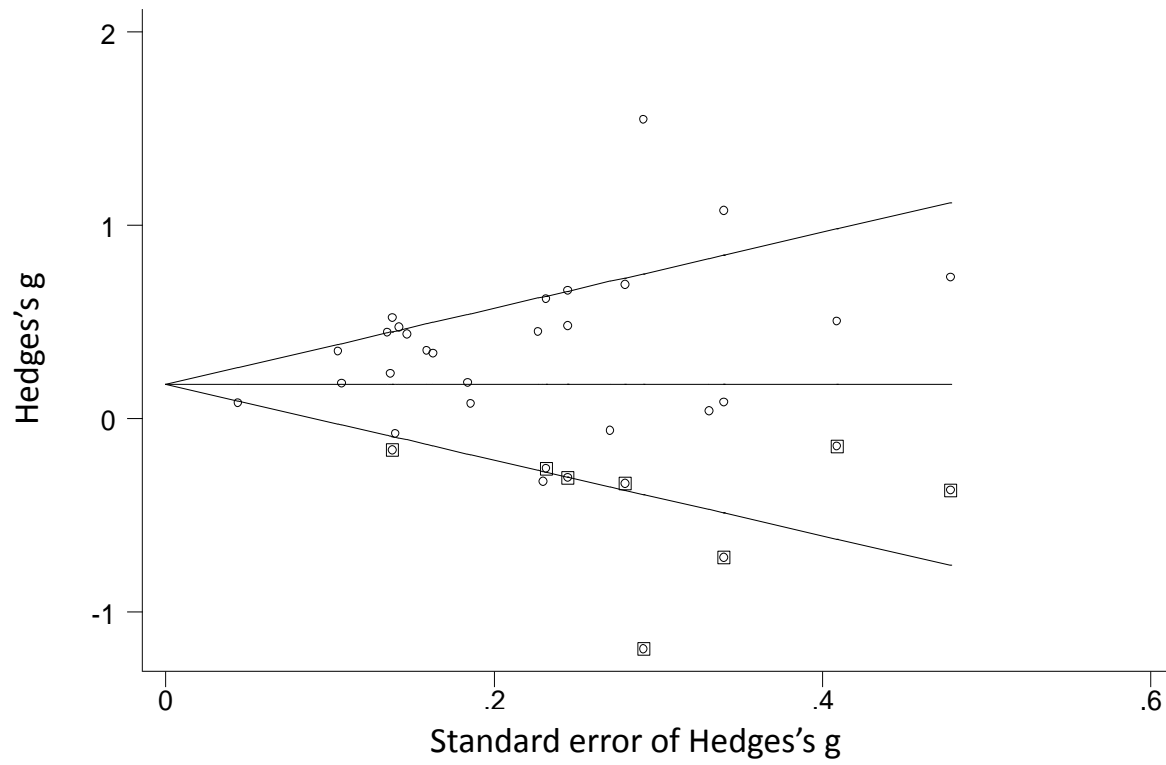
Low risk of bias

Uncertain (moderate) risk of bias

**Supplementary figure 2 Outcome of risk of bias assessment by type of bias**



**Supplementary figure 3 Filled funnel plot with pseudo 95% confidence limits**



information of intervention components

Supplementary table 1:

Detailed









