

Supplementary material

This file contains

- Figures 8
- Tables 10

#	Searches	Results
1	exp Crisis Intervention/	8523
2	("brief intervention and contacts" or "brief contact intervention" or "crisis intervention" or "crisis therapy" or "crisis counseling").tw,kf.	10841
3	exp self-injurious behavior	92740
4	(suicid* or "suicidal behavior" or "suicide attempts" or "self-harm" or "Self-Injurious Behavior" or "Self-Injurious Behavior/prevention and control" or "Self-Injurious Behavior/therapy").tw,kf.	346,593
5	1 or 2	16,804
6	3 or 4	371,193
7	5 and 6	4,733
8	exp Randomized Controlled Trial/	613,629
9	randomized controlled trial.ti,ab.	178,433
10	8 or 9	717,8865
11	7 and 10	80
12	limit 11 to english language	78

Figure 1. MEDLINE search history as an example for the search strings.

Publication bias

We created funnel plots for visual evaluation of publication bias. Judging from the funnel plots, asymmetry was observed in the outcomes ‘mental health service use at follow-up’ and ‘self-harm at follow-up’, which raised the possibility of publication bias in these outcomes. For ‘re-attempts at follow-up’ and ‘suicidal ideation at follow-up’ the distributions were more symmetrical, which suggested a lower risk of bias in these outcomes. To further explore potential bias, we formally tested this using Peter’s regression test for the categorical outcomes, and Egger’s test for the continuous outcome.

For the outcome ‘re-attempts during follow-up’ the test was significant ($z = -2.65$, $p = 0.01$), suggesting evidence of asymmetry. The limit estimate was $b = -0.01$ (95% CI: -0.29, 0.28). However, the wide confidence interval indicated some uncertainty around the estimate. For the outcome ‘self-harm at follow-up’, the test was not significant ($z = 0.35$, $p = 0.73$), indicating no strong evidence of asymmetry. The limit estimate was $b = -0.06$ (95% CI: -0.44, 0.32), reflecting uncertainty around the estimate. For the outcome ‘linkage to mental health service at follow-up’, the test was significant ($z = 3.27$, $p = 0.00$), indicating strong evidence of asymmetry. The limit estimate was $b = -0.53$ (95% CI: -1.24, 0.18), though the confidence interval suggested some uncertainty around the precise magnitude of bias.

For the continuous outcome ‘suicidal ideation at follow-up’, the test was not significant ($z = -0.93$, $p = 0.35$), indicating no strong evidence of asymmetry. The limit estimate was $b = 0.13$ (95% CI: -0.20, 0.46), suggesting uncertainty around the presence of bias.

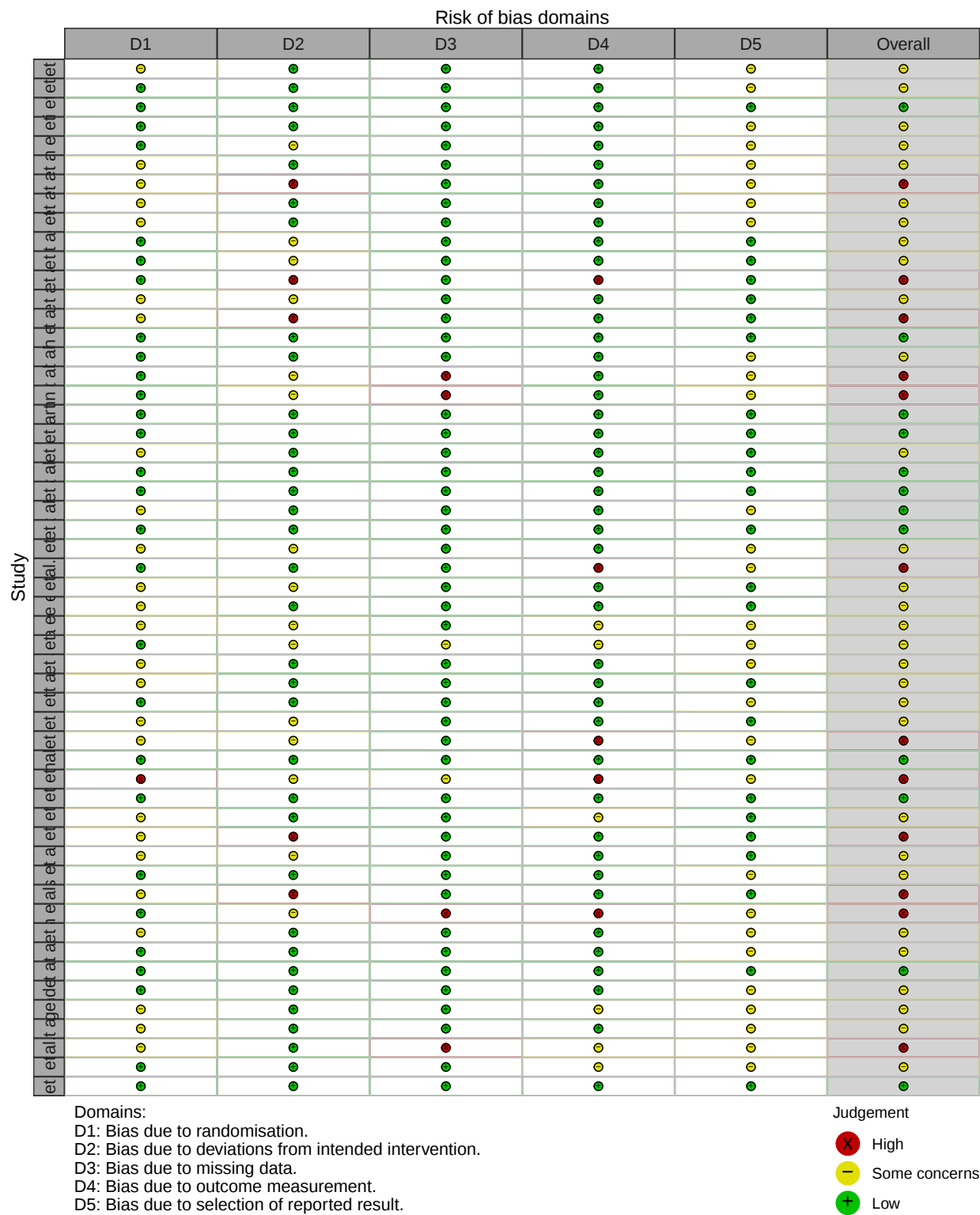


Figure 2. Risk of bias assessment. The traffic light plot shows the results of the ‘risk oof bias’ assessment for each study.

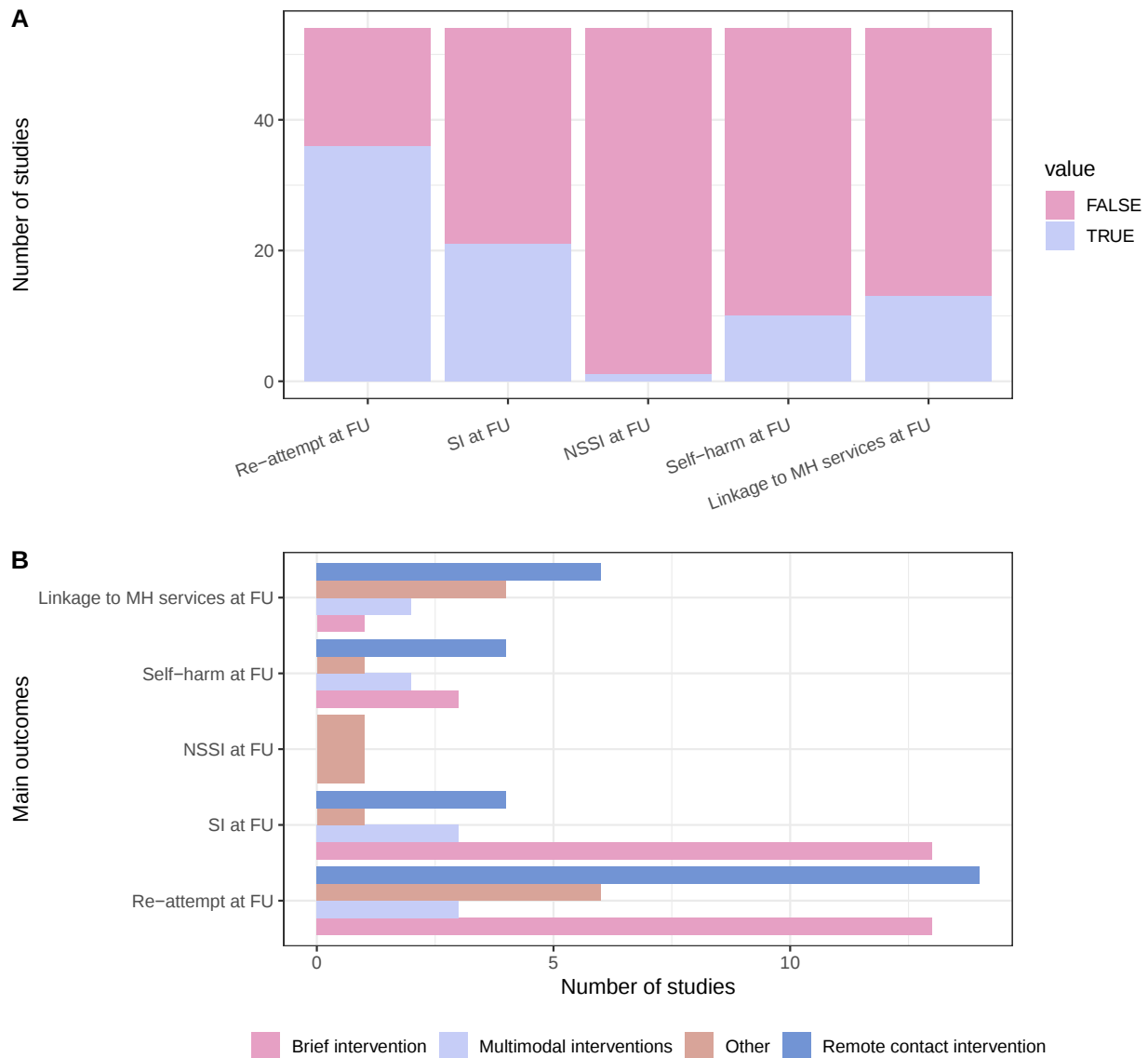


Figure 3. Descriptive plots. Panel (A) shows the distribution of the studies that investigated the outcomes of interest ‘suicide re-attempts at follow-up’, ‘suicidal ideation at follow-up’, ‘NSSI at follow-up’, ‘self-harm at follow-up’, and ‘linkage to mental health service at follow-up’. Panel (B) shows the distribution of the intervention types by outcome.

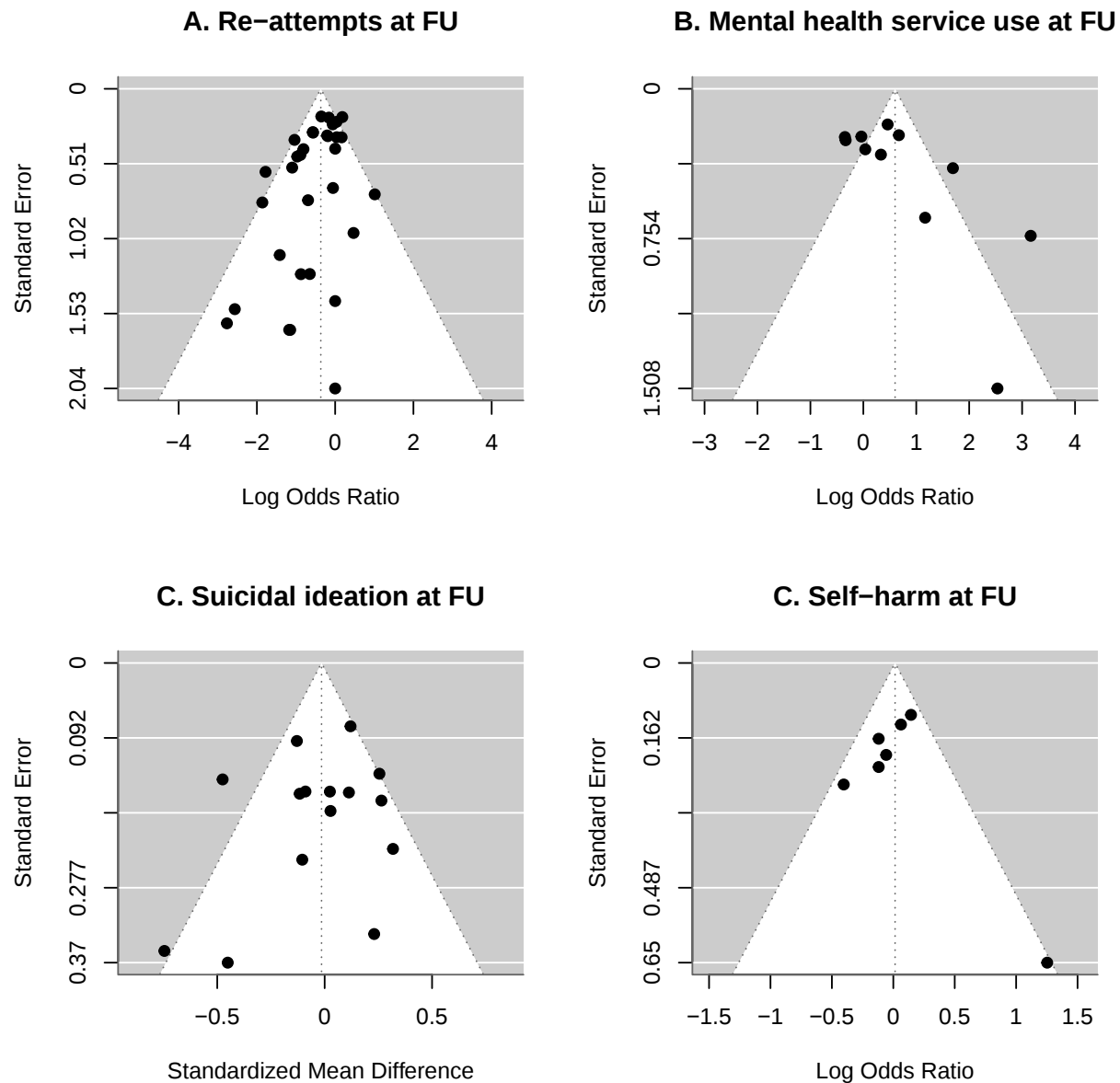


Figure 4. Funnel plots. The funnel plots show the observed effect sizes on the x-axis against some measure of precision of the observed effect sizes, here the standard error, on the y-axis. In the absence of publication bias and heterogeneity, the points representing the individual studies should fall inside the pseudo-confidence region (Sterne & Egger, 2001).

Post-hoc analyses

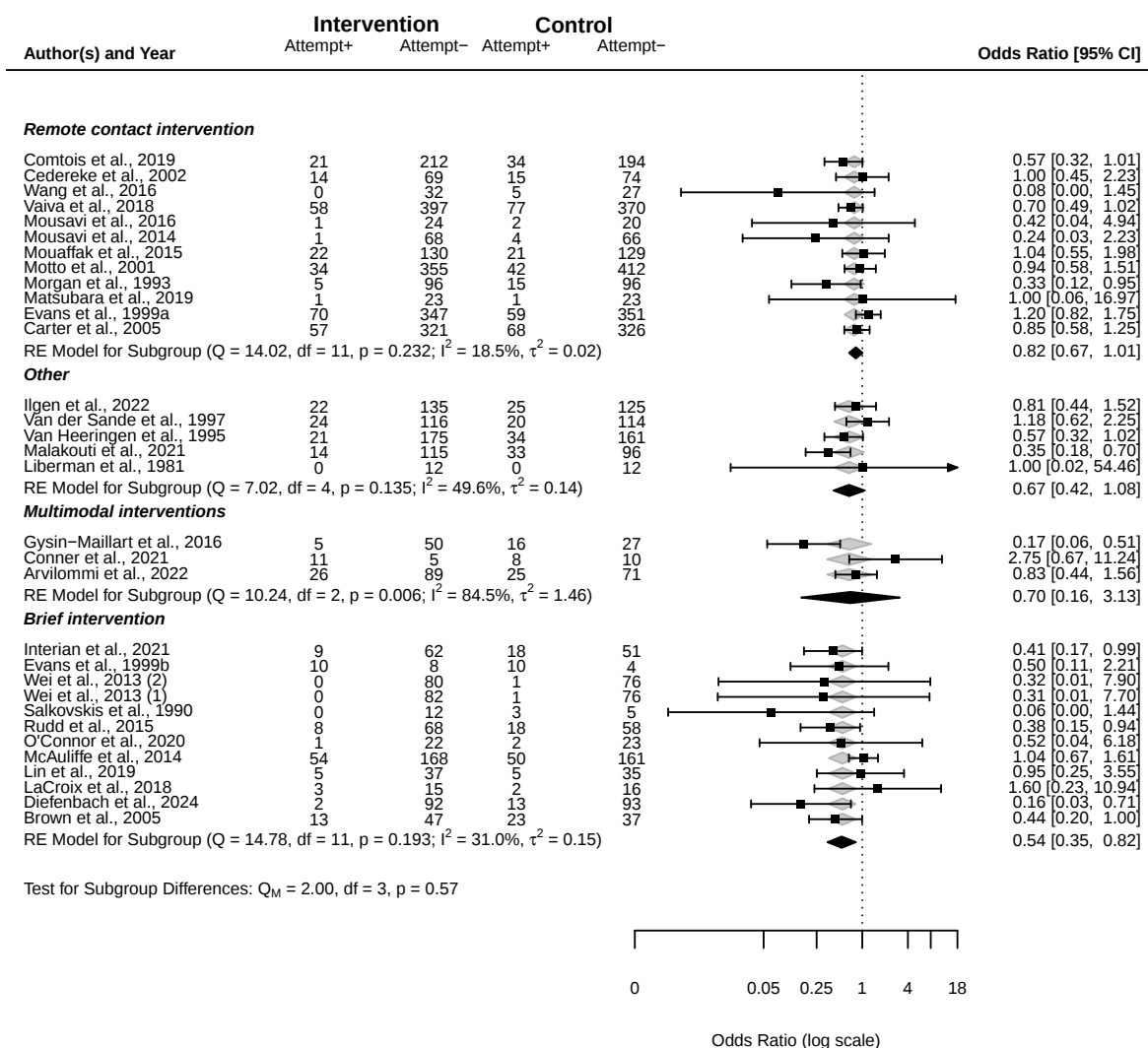


Figure 5. Meta-regression results for re-attempts. The forest plot shows the meta-regression of odds ratios (OR) together with its 95% confidence interval (CI) for the categorical outcome ‘suicide re-attempts at follow-up’ for brief intervention and contacts versus control with the moderator intervention type.

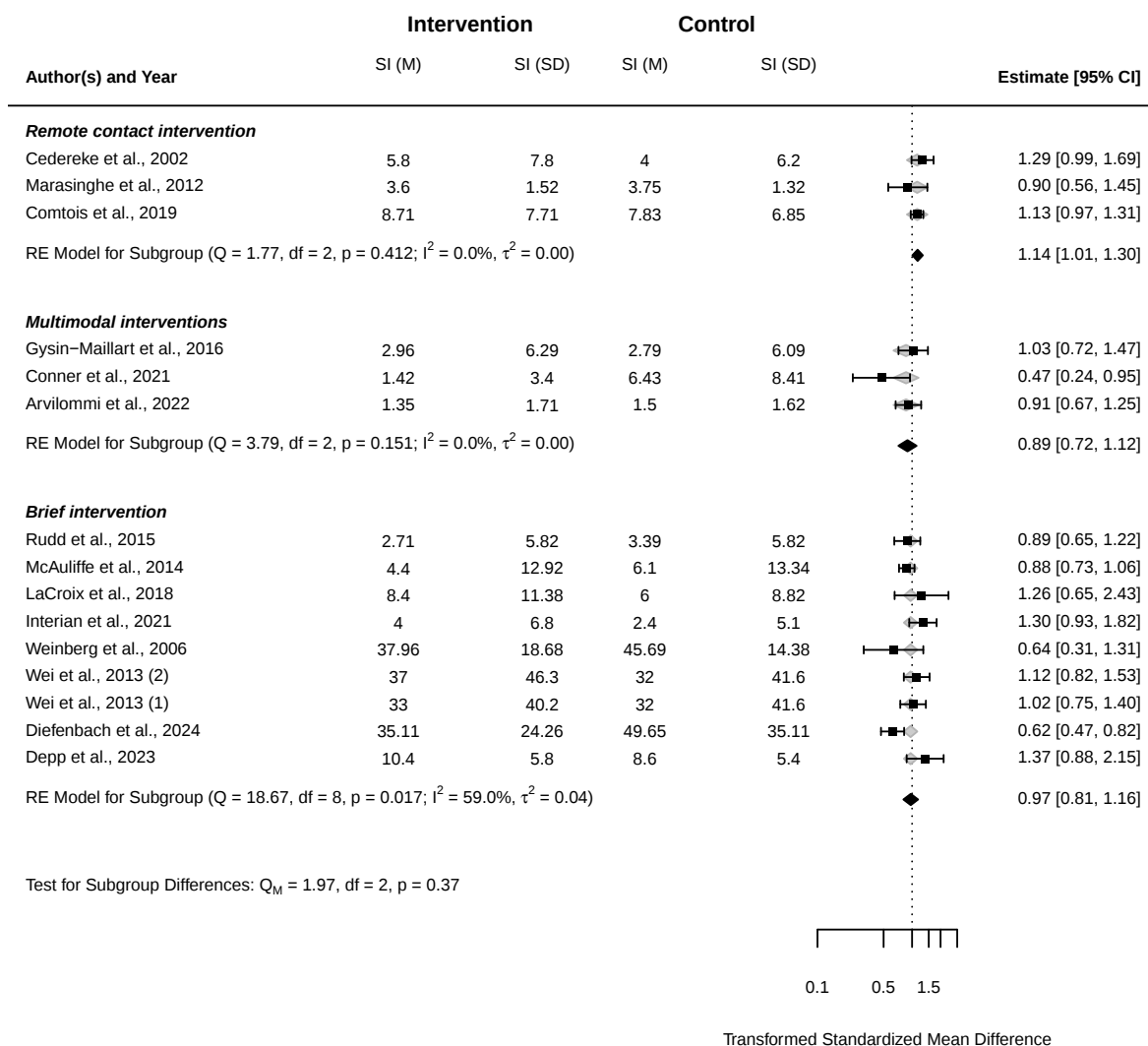


Figure 6. Meta-regression results suicidal ideation. The forest plot shows the meta-regression of standardized mean differences (SMD) together with its 95% confidence interval (CI) for the continuous outcome ‘suicidal ideation at follow-up’ for brief intervention and contacts versus control with the moderator intervention type.

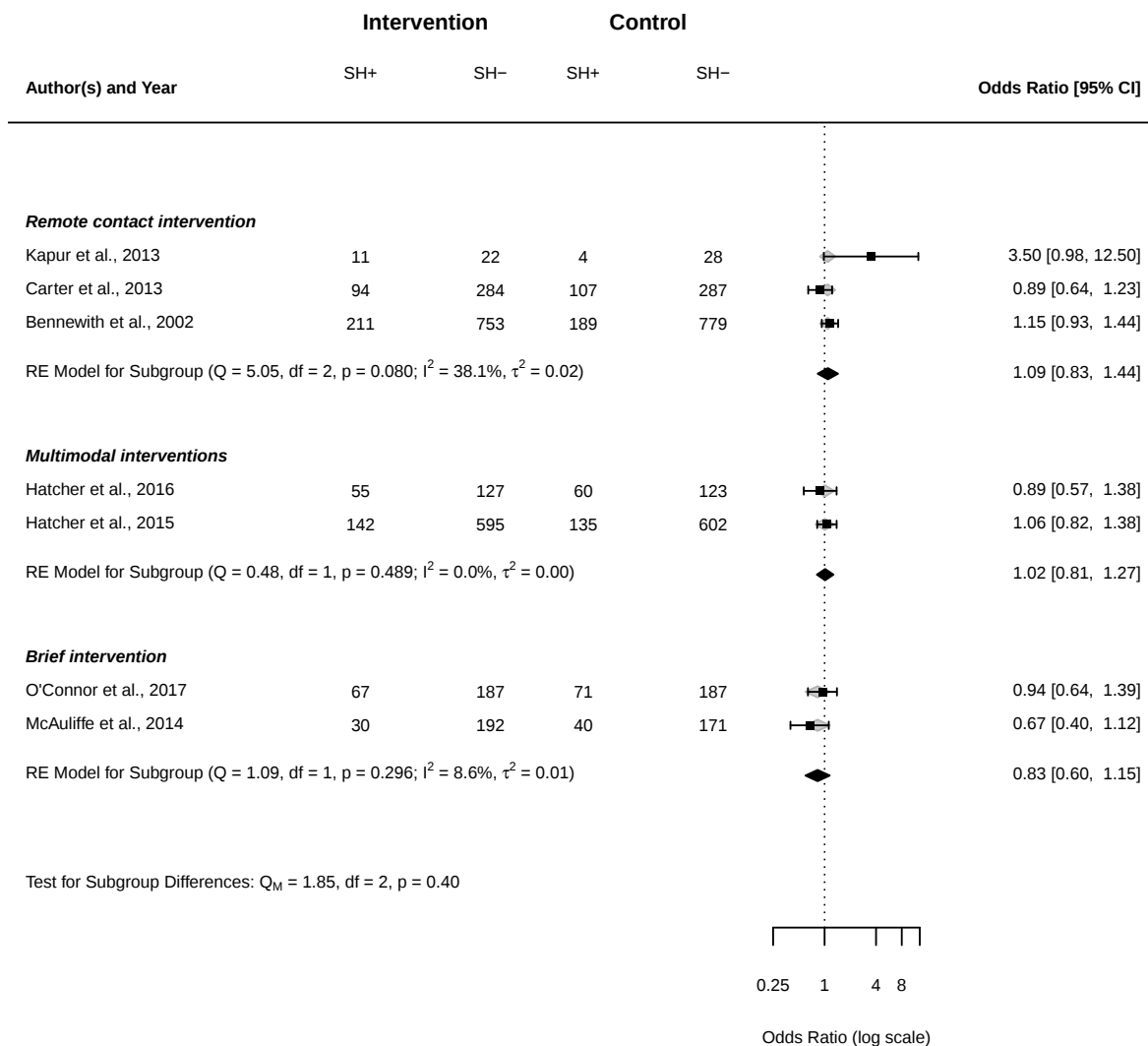


Figure 7. Meta-regression results for self-harm. The forest plot shows the meta-regression of odds ratios (OR) together with its 95% confidence interval (CI) for the categorical outcome 'self-harm at follow-up' for brief intervention and contacts versus control with the moderator intervention type.

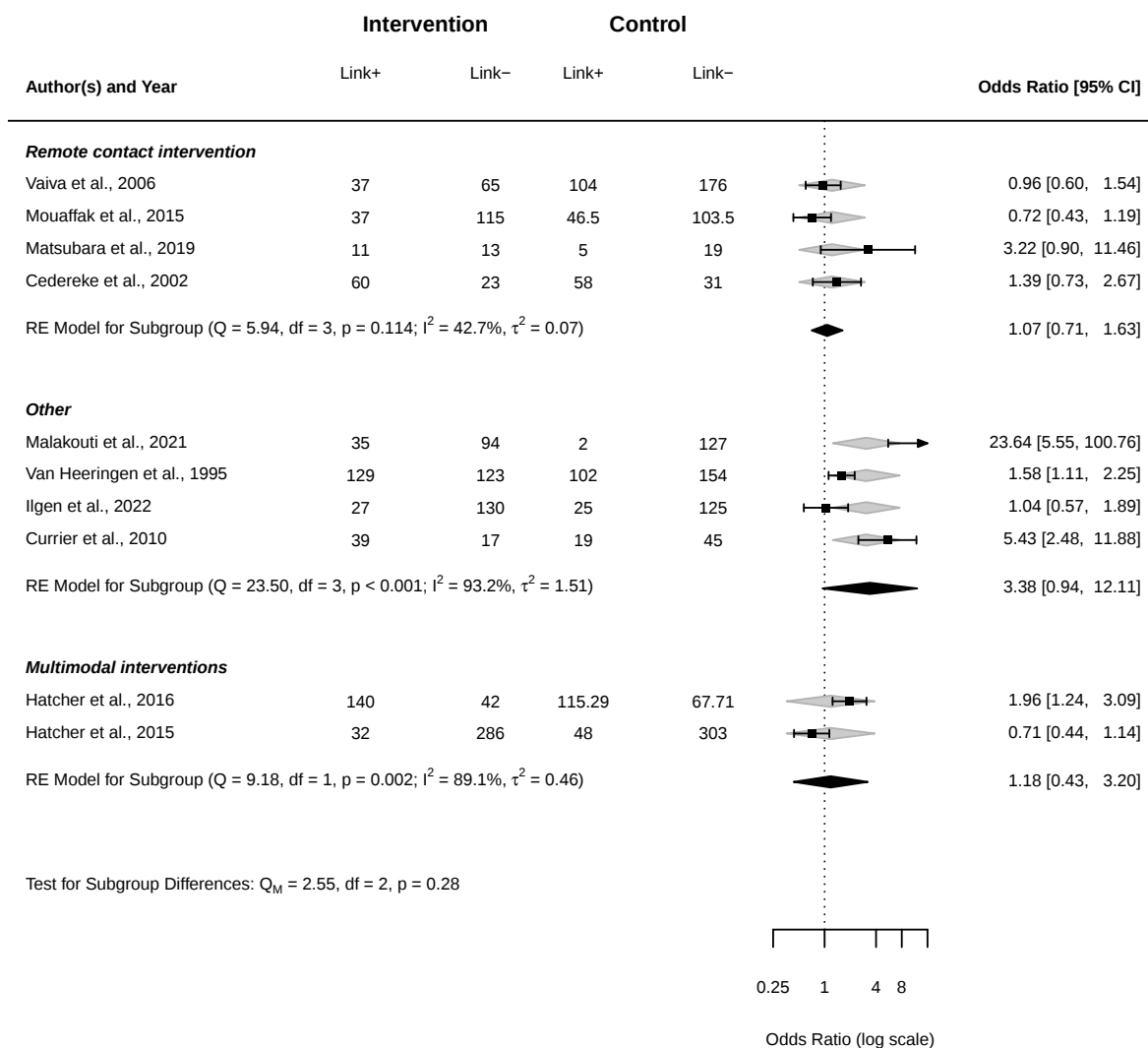


Figure 8. Meta-regression results for linkage to aftercare. The forest plot shows the meta-regression of odds ratios (OR) together with its 95% confidence interval (CI) for the categorical outcome ‘linkage to mental health service at follow-up’ for brief intervention and contacts versus control with the moderator intervention type.

Supplementary Tables

Table 1

(#tab:tab_meta_all)Meta-analyses results for all outcomes.

Outcome	Estimate	Standard Error	Lower CI	Upper CI	Z-value	P-value
Suicide re-attempts at FU	-0.37	0.10	-0.56	-0.56	-3.74	0.00
Suicidal ideation at FU	-0.01	0.06	-0.14	-0.14	-0.23	0.82
Self-harm at FU	0.01	0.07	-0.12	-0.12	0.22	0.83
Linkage to MH service at FU	0.60	0.28	0.05	0.05	2.13	0.03

Table 2

(#tab:tab_meta_reg_sa) *Meta-regression results for suicide re-attempts at FU with intervention type as moderator.*

		Estimate	Standard Error	Lower CI	Upper CI	Z-value	P-value
intrcpt	Intercept	-0.60	0.21	-1.01	-1.01	-2.91	0.00
factor(intervention)Multimodal interventions	Multimodal interventions	0.21	0.40	-0.57	-0.57	0.52	0.60
factor(intervention)Other	Other	0.20	0.31	-0.40	-0.40	0.66	0.51
factor(intervention)Remote contact intervention	Remote contact intervention	0.36	0.26	-0.14	-0.14	1.41	0.16

Table 3

(#tab:tab_meta_reg_si)Meta-regression results for suicidal ideation at FU with intervention type as moderator.

		Estimate	Standard Error	Lower CI	Upper CI	Z-value	P-value
intrcpt	Intercept	-0.04	0.08	-0.20	-0.20	-0.43	0.67
factor(intervention)Multimodal interventions	Multimodal interventions	-0.11	0.18	-0.46	-0.46	-0.63	0.53
factor(intervention)Remote contact intervention	Remote contact intervention	0.16	0.15	-0.14	-0.14	1.05	0.29

Table 4

(#tab:tab_meta_reg_sh)Meta-regression results for self-harm at FU with intervention type as moderator.

		Estimate	Standard Error	Lower CI	Upper CI	Z-value	P-value
intrcpt	Intercept	-0.19	0.17	-0.52	-0.52	-1.12	0.26
factor(intervention)Multimodal interventions	Multimodal interventions	0.20	0.21	-0.22	-0.22	0.94	0.35
factor(intervention)Remote contact intervention	Remote contact intervention	0.27	0.20	-0.12	-0.12	1.36	0.17

Table 5

(#tab:tab_meta_reg_link)Meta-regression results for linkage to mental health services at FU with intervention type as moderator.

		Estimate	Standard Error	Lower CI	Upper CI	Z-value	P-value
intrcpt	Intercept	0.16	0.61	-1.02	-1.02	0.27	0.79
factor(intervention)Other	Other	0.96	0.76	-0.53	-0.53	1.26	0.21
factor(intervention)Remote contact intervention	Remote contact intervention	0.04	0.76	-1.44	-1.44	0.05	0.96

Table 6

(#tab:tab_meta_reg_sa_pop)Meta-regression results for suicide re-attempts at FU with studied population as moderator.

		Estimate	Standard Error	Lower CI	Upper CI	Z-value	P-value
intrcpt	Intercept	-0.60	0.21	-1.01	-1.01	-2.91	0.00
factor(intervention)Multimodal interventions	Multimodal interventions	0.21	0.40	-0.57	-0.57	0.52	0.60
factor(intervention)Other	Other	0.20	0.31	-0.40	-0.40	0.66	0.51
factor(intervention)Remote contact intervention	Remote contact intervention	0.36	0.26	-0.14	-0.14	1.41	0.16

Table 7

(#tab:tab_meta_reg_si_pop)Meta-regression results for suicidal ideation at FU with studied population as moderator.

		Estimate	Standard Error	Lower CI	Upper CI	Z-value	P-value
intrcpt	Intercept	-0.04	0.08	-0.20	-0.20	-0.43	0.67
factor(intervention)Multimodal interventions	Multimodal interventions	-0.11	0.18	-0.46	-0.46	-0.63	0.53
factor(intervention)Remote contact intervention	Remote contact intervention	0.16	0.15	-0.14	-0.14	1.05	0.29

Table 8

(#tab:tab_meta_reg_link_pop)Meta-regression results for linkage to mental health services at FU with studied population as moderator.

		Estimate	Standard Error	Lower CI	Upper CI	Z-value	P-value
intrcpt	Intercept	0.16	0.61	-1.02	-1.02	0.27	0.79
factor(intervention)Other	Other	0.96	0.76	-0.53	-0.53	1.26	0.21
factor(intervention)Remote contact intervention	Remote contact intervention	0.04	0.76	-1.44	-1.44	0.05	0.96

Table 9
(#tab:tab_sens_I)*Sensitivity analyses with outlier removed.*

			Standard	Lower	Upper	Z-	P-
	Outcome	Estimate	Error	CI	CI	value	value
intrcpt	Suicidal ideation at FU	0	0.07	-0.14	-0.14	-0.03	0.97

Table 10

(#tab:tab_sens_II)Sensitivity analyses results without high-risk studies.

Outcome	Estimate	Standard	Lower		Z-value	P-value
		Error	CI	Upper CI		
Suicide re-attempts at FU	-0.38	0.12	-0.60	-0.60	-3.25	0.00
Suicidal ideation at FU	0.03	0.06	-0.09	-0.09	0.52	0.61

References

- Sterne, J. A., & Egger, M. (2001). Funnel plots for detecting bias in meta-analysis: Guidelines on choice of axis. *Journal of Clinical Epidemiology*, 54(10), 1046–1055.