**Supplementary Material**

**Supplemental Table 1.** *Full-texts excluded and reasons.*

|  |  |
| --- | --- |
| Study | Reason |
| Williams et al., 2020 (Williams et al., 2020) | No assessment of suicide attempt histories |
| Wells et al., 2020 (Wells et al., 2020) | Does not use the D-IAT |
| Ballard et al., 2019 (Ballard et al., 2019) | No assessment of suicide attempt histories  |
| Ho et al., 2018 (Ho et al., 2018) | No assessment of suicide attempt histories  |
| Chiurliza et al., 2018 (Chiurliza et al., 2018) | No assessment of suicide attempt histories |
| Cha et al., 2018 (Cha et al., 2018) | No assessment of suicide attempt histories |
| Barnes et al., 2019 (Barnes et al., 2019) | Same sample as Barnes and colleagues 2017 |
| Tucker et al., 2018 (Tucker et al., 2018) | Does not use the D-IAT  |
| Kene 2017 (Kene, 2017) | Does not use the D-IAT |
| Arendt et al., 2016 (Arendt et al., 2016) | No assessment of suicide attempt histories |
| Hussey et al., 2015 (Hussey et al., 2016) | No assessment of suicide attempt histories |
| Price et al., 2014 (Price et al., 2014) | No assessment of suicide attempt histories |
| Randall et al., 2013 (Randall et al., 2013) | No separation of non-suicidal self injury from suicide attempts in collection of self-harm data |
| Tang et al., 2013 (Tang et al., 2013) | No assessment of suicide attempt histories |
| Glashouwer et al., 2010 (Glashouwer et al., 2010) | Does not use the D-IAT |
| Price et al., 2009 (Price et al., 2009) | No assessment of suicide attempt histories |
| Chen et al., 2020 (Chen et al., 2020) | No measure of suicide attempts in combination with D-IAT |
| van Leeuwen et al., 2020 (Chen et al., 2020) | No assessment of suicide attempt histories |
| Cha et al., 2016 (Cha et al., 2016) | No assessment of suicide attempt histories |
| Ballard et al., 2020 (Ballard et al., 2020) | Suicidal group did not meet minimum sample size of n=5 (n=4).  |
| Gratz et al., 2016 (Gratz et al., 2016) | No assesssment of suicide histories |
| Nock & Banaji, 2007 (Nock & Banaji, 2007a) | Does not use the D-IAT |
| Nock & Banaji, 2007 (Nock & Banaji, 2007b) | Does not use the D-IAT |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Confounding | Participant selection | Classification of interventions | Deviations from intended intervention | Missing data (B/F) | Measurement of outcomes | Reported result | Overall rating(B/F) |
| Nock et al., 2010 | Low | Low | Low | Low | Low/Mod | Low | Low | Low/Mod |
| Harrison et al., 2014 | Low | Low | Low | Low | Low | Low | Low | Low |
| Dickstein et al., 2015 | Low | Low | Low | Low | Low | Low | Low | Low |
| Ellis et al., 2016 | Mod | Low | Low | Low | Low | Low | Low | Mod |
| Barnes et al., 2017 | Low | Low | Low | Low | Low/Low | Low | Low | Low/Low |
| Glenn CR et al., 2017 | Low | Low | Low | Low | Low | Low | Low | Low |
| Glenn JJ et al., 2017 | Mod | Low | Low | Low | Low | Low | Low | Mod |
| Harrison et al., 2018 | Mod | Low | Low | Low | Low/Low | Low | Low | Mod/Mod |
| Millner et al., 2018 | Mod | Low | Low | Low | Low | Low | Low | Mod |
| Millner et al., 2019 | Low | Low | Low | Low | Low | Low | Low | Low |
| Bender et al., 2019 | Low | Low | Low | Low | Low | Low | Low | Low |
| Glenn CR et al., 2019 | Low | Low | Low | Low | Low/Low | Low | Low | Low/Low |
| Podlogar et al., 2019 | Low | Low | Low | Low | Low | Low | Low | Low |
| Tello et al., 2020 | Low | Low | Low | Low | Low/Low | Low | Low | Low/Low |
| O’Shea et al., 2020 | Mod | Low | Low | Low | Low | Low | Low | Mod |
| Wang et al., 2020 | Low | Low | Low | Low | Low | Low | Low | Low |
| Ho et al., 2021 | Low | Low | Low | Low | Low | Low | Low | Low |
| Rath et al., 2021 (1) | Low | Low | Low | Low | Mod | Low | Low | Mod |
| Rath et al., 2021 (2) | Low | Low | Low | Low | Mod/Mod | Low | Mod | Mod/Mod |

**Supplementary Table 2.** *Ratings of study quality.*

*Note.* Each box represents the likelihood of bias as measured using the ROBINS-I tool. B/F=baseline/follow-up measures where applicable. Mod=Moderate.

**Database Search**

MEDLINE: Updated search date February 9th, 2021

PsychINFO: Updated search date February 9th, 2021

EMBASE: Updated search date February 9th, 2021

Cochrane Central Register of Controlled Trials (CENTRAL): Updated search date February 9th, 2021

**Supplemental Figure 1.** *MEDLINE (OVID interface) search strategy and results.*

November 14th, 2020



Updated: February 9th, 2021



**Supplemental Figure 2.** *PsychINFO (OVID interface) search strategy and results.*

November 14th, 2020



Updated: Februrary 9th, 2021



**Supplemental Figure 3.** *EMBASE (OVID interface) search strategy and results.­*

November 14th, 2020



Updated: Februrary 9th, 2021



**Supplemental Figure 4.** *Cochrane Central Register of Controlled Trials (CENTRAL; OVID interface) search strategy and results.­*

November 14th, 2020



Updated: February 9th, 2021



**Supplemental Table 3.** *Raw data and group composition.*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Study | NA Group (*n*) | NA D-IAT Mean (SD) | SA Group (*n*) | SA D-IAT Mean (SD) | Group differences | % Sample D-IAT ≥ 0  | Country |
| Nock et al., 2010 | Presented to ED with psychiatric emergency (*n*=114) |  | Presented to ED with SA in past week (*n*=43) |  | *t*(155) = 2.46, p < .05 | 24.18% (SA) | USA |
| Harrison et al., 2014 | Undergraduate students (*n*=357). *n*=154 with past-year SI | -0.48 (0.32) | Lifetime SA (*n*=51) | -0.38 (0.30) |  | 9.07%  | USA |
| Dickstein et al., 2015 | NSSI Disorder (*n*=46), HC (*n*=43)  | -0.27 (0.31) | SA in past 30-days. No history of NSSI (*n*=47) | -0.34 (0.29) |  |  | USA |
| Ellis et al., 2016 | SI (*n*=211) | -0.47 (0.39) | Lifetime SA (*n*=207) | -0.40 (0.44) |  | 16.26%  | USA |
| Barnes et al., 2017 | Hospitalized due to suicide risk (*n*=47) | -0.49 (0.40) | Lifetime SA (*n*=126) | -0.46 (0.40) |  | 12.14%  | USA |
| Glenn C.R. et al., 2017 | Lifetime SI (*n*=166) | -0.28 (0.40) | Lifetime SA (*n*=110) | -0.29 (0.33) |  | 22.91%  | USA |
| Glenn J.J. et al., (1) | No NSSI. >50% SI (*n*=720) |  | Lifetime SA (*n*=266) |  | *t*(984) = 5.32, p<.001 | 18.63%  | USA |
| Glenn J.J. et al., (2) | No NSSI >50% SI (*n*=720) |  | Lifetime SA (*n*=264) |  | *t*(982) = 4.49, p < .001 | 18.63% | USA |
| Harrison et al., 2018 | Presented to ED with SI (*n*=21) | -0.43 (0.39) | Lifetime SA (*n*=107) | -0.52 (0.67) |  | 16.41%  | USA |
| Millner et al., 2018 | >50% SI (*n*=1257) | -0.41 (0.03) | Lifetime SA (*n*=598) | -0.19 (0.03) |  | 19.08%  | USA |
| Millner et al., 2019 | *n*=18 SI, *n*=14 non-suicidal  | -0.37 (0.27) | Lifetime SA (*n*=34) | -0.23 (0.43) |  | 19.72%  | USA |
| Bender et al., 2019 | HC, *n*=6 SI (*n*=134) | 0.16 (0.20) | Lifetime SA (*n=*8) | 0.16 (0.30) |  | 81.16%  | USA |
| Glenn C.R. et al., 2019 | *n*=35 HC, *n*=12 lifetime SI, *n*=42 past year SI | -0.47 (0.22) | *n*=22 past-year SA, *n*=30 lifetime SA  | -0.36 (0.23) |  | 14.18%  | USA |
| Podlogar et al., 2019 | *n*=89 no STB, *n*=140 SI, *n*=91 suicide plans  |  | Lifetime SA (*n=*62) |  | *t* (380)=3.49 | 11.52%  | USA |
| Tello et al., 2020 | Presented to ED with psychiatric emergency (*n*=60) | -0.61 (0.34) | Lifetime SA (*n=*102) | -0.50 (0.39) |  | 10.37%  | France |
| O’Shea et al., 2020 | 51.91% any STB (*n=*1731) | -0.41 (0.46) | Lifetime SA (*n=*802) | -0.20 (0.50) |  | 22.62%  | USA |
| Wang et al., 2020 | HC (*n*=125), depressed (*n*=90)  | -0.27 (0.42) | Lifetime SA (*n*=40) | -0.03 (0.43) |  |  | China |
| Ho et al., 2021 | Depressed (*n*=41) | -0.09 (0.22) | Lifetime SA (*n*=12) | -0.27 (0.29) |  | 18.87%  | USA |
| Rath et al., 2021 (1) | Lifetime SI (*n*=45) | -0.35 (0.29) | Lifetime SA (*n*=26) | -0.42 (0.41) |  | 14.08%  | Germany |
| Rath et al., 2021 (2)  | Lifetime SI: currently hopsitalized for severe SI (*n*=55) | -0.34 (0.32) | Lifetime SA (*n*=171) | -0.34 (0.34) |  | 14.16%  | Germany |

*Note.* NA = non-attempter. SA = Suicide Attempter. SI = Suicidal Ideation. Group column describes group composition. HC = Healthy Controls. D-IAT = Death Implicit Association Test. SD = Standard Deviation. ED = Emergency Department. STB = Suicidal Thoughts and Behaviours. Means from Harrison et al., (2014; 2018) were reverse coded from how they were presented in the originial publication (here, negative scores represent stronger association with life). Country = country where study was conducted. Group differences only presented here if means and SD not available.

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**Supplemental Figure 5.** Funnel plot depicting the standard mean difference versus study precision in eighteen studies that assessed D-IAT scores in individuals with and without a lifetime history of suicide attempt (Intercept = -2.16, 95%CI: -3.40 to -0.93, *p*=0.002). \*The nineteenth and twentieth points represent the replication sample from J.J. Glenn et al., 2017 and study 2 from Rath et al., 2021.

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**Supplemental Figure 6.** Funnel plot depicting log odds ratio versus study precision in fifteen studies presenting retrospective odds ratios of a lifetime history of suicide attempt(s) when D-IAT scores fall above or equal to zero (Intercept = -0.95, 95%CI: -2.65 to 0.74, *p*=0.25). \*The sixteenth data point represents the second sample from Rath et al., 2021.

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**Supplemental Figure 7.** Funnel plot depicting log odds ratio versus study precision in six studies presenting predictive odds ratios of a suicide attempt within six-months when D-IAT scores fall above or equal to zero (intercept=0.65, 95%CI: -5.96 to 7.26, *p*=0.80).

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