

Online Supplement Table A3: General characteristics of included trials

Reference	Country	Setting	Target group (n), age, % male	Treatment	Comparison Group type/ TAU+ or Active controlled treatment	Does intervention group also receive TAU	Self harm inclusion criteria	Self harm outcome measure	Self rated suicidal ideation, depression, hopelessness outcome measures	Maximum follow-up (post index episode)	Results	Control event rate %
Problem focused												
Bannan 2010 ⁶⁹	Ireland	Emergency Department and Community	18 29.5 years Gender not reported	Problem solving group therapy	TAU+	Yes	Self poisoning (at least one other episode within previous 12 months)	Repetition of self poisoning	BSSI, BDI, BHS	2 months	INT 0/0 TAU+ 0/9 Non significant differences	0%
Gibbons 1978 ⁷⁵	UK	Emergency Department and Community	400 Age not reported (>17) 29% male	Problem focused case management	TAU	No	Self poisoning	Repetition of self poisoning	BDI (no data for MA)	12 months	INT 27/200 TAU 29/200 Non significant differences	14.5%
Hatcher 2011 ⁷⁶	New Zealand	Emergency Department and Community	522 33.5 years 31.5% males	Problem solving therapy	TAU	Yes	Self harm	Repetition of self harm	BSSI, BDI, BHS	12 months	INT 70/522 TAU 81/572 Non significant differences (Significant differences seen in the subgroup who had previous episodes of DSH)	14.2%
Hawton 1987 ⁴⁸	UK	Emergency Department and Community	80 Age not reported (>16) 34% male	Brief problem-oriented counselling	TAU	No	Self poisoning	Repetition of self poisoning	BDI (used baseline standard deviation)	12 months	INT 3/41 TAU 6/39 Non significant differences	15.4%
Husain 2014 ⁴⁹	Pakistan	Emergency Department and Community	221 23.1 years 31% male	Problem oriented CBT approach	TAU	No	Self harm	Repetition of self harm	BSSI, BDI, BHS	6 months	INT 3/108 TAU 3/113 Non significant differences	2.7%
McAuliffe 2014 ⁷⁷	Ireland	Emergency Department and Community	433 33 years 35.5% male	Problem solving group therapy	TAU+	Yes	Self harm	Repetition of self harm	BSSI, BDI, BHS	12 months	INT 54/222 TAU+ 50/211 Non significant	23.7%

											differences	
McLeavey 1984 ⁶⁷	Ireland	Emergency Department and Community	39 24.4 years 26% male	Problem solving skills training	Alternative controlled treatment comparison	No	Self poisoning	Repetition of self poisoning	BHS	12 months	INT 2/19 CNT 5/20 Non significant differences	25%
Patsiokas 1985 ⁸⁴	USA	Inpatient	15 Age and gender not reported	Two intervention arms: 1. Problem solving therapy; 2. Cognitive restructuring	Alternative controlled treatment comparison	Yes	Suicide attempt	Suicidal Ideation	BSSI, BHS	3 weeks	No self-harm outcomes Non significant difference in SI between intervention groups and other therapy group	Not reported
Stewart 2009 ⁸⁵	Australia	Emergency Department and Community	32 mean age not reported (range 20 to 58) 46.9% male	Two intervention arms: 1. Problem solving therapy; 2. CBT	TAU	Unclear	Suicide attempt	Repetition of suicide attempt	BSSI, BHS	2 months	No raw data reported: significant differences between groups not described for self harm outcomes	Not reported
Salkovskis 1990 ⁶⁸	UK	Emergency Department and Community	20 27.5 years 50% male	Problem solving approach	TAU	Yes	Suicide attempt (2 or more attempts)	Repetition of suicide attempt	BSSI, BDI, BHS (no data for MA)	18 months	INT 3/12 TAU 4/8 Non significant differences	50%
CBT												
Brown 2005 ⁵⁰	USA	Emergency Department and Community	109 18-66 years (average age not stated) 39% male	CBT	TAU+	Yes	Suicide attempt	Repetition of suicide attempt	BSSI, BDI, BHS	18 months	INT 13/54 TAU+ 23/55 Significant difference	41.8%

Evans 1999 ⁷¹	UK	Emergency Department and Community	32 16-50 years (average age not stated) 38% male	CBT	TAU	No	Deliberate self harm with at least one other episode within previous 12 months	Repetition of self harm	HADS	6 months	INT 10/18 TAU 10/14 Non significant difference	71.4
Lieberman 1981 ⁷⁰	USA	Emergency Department and Community	24 29.7 years 33% male	Behaviour therapy	Alternative controlled treatment comparison	No	Suicide attempt with at least one other SA within previous 24 months	Repetition of suicide attempt	BDI	24 months	INT 2/12 CNT 3/12 Non significant difference	25%
Morely 2014 ⁸⁹	Australia	Emergency Department and Community	185 36.1 years 26% male	CBT	TAU	Yes	Suicide attempt	Repetition of suicide attempt	BSSI HADS	6 months	Not reported by group	Not reported by group
Rudd 2015 ⁶⁶	USA	Psychiatric hospitalisation and community (Military)	152 27.4 years 87.5% male	CBT	TAU	Yes	Suicide attempt and/or suicidal ideation with intent to die	Repetition of suicide attempt	BSSI, BDI, BHS	24 months	INT 8/76 TAU 18/76 Significant difference	23.7%
Slee 2008 ⁹⁰	The Netherlands	Emergency Department and Community	90 24.5 years 6% male	CBT	TAU	Yes	Self harm	Frequency of self harm	BDI, Suicide Cognition Scale	9 months	CBT 1.18 (4.22) TAU 4.58 (8.37) Significant difference	Not reported
Tyrer 2003 ⁷⁸	UK	Emergency Department and Community	430 32 years 32% male	CBT	TAU+	No	Deliberate self harm with at least one previous episode	Repetition of self harm	HADS (used baseline standard deviation)	12 months	INT 84/215 TAU+ 99/215 Non significant difference	46.0%
Psychodynamic												
Gurthrie 2001 ⁵¹	UK	Emergency Department and Community	119 31.2 years 45% male	Psychodynamic therapy	TAU	No	Deliberate self poisoning	Repetition of self harm	BSSI, BDI	6 months	INT 5/58 TAU 17/61 Significant difference	27.9%
Complex Interventions with Outreach												

Allard 1992 ⁵²	Canada	Emergency Department and Community	126 Age not reported 45% male	Intensive intervention including therapy and case management	TAU	No	Suicide attempt	Repetition of SA	None	24 months	INT 22/63 TAU 19/63 Non significant difference	30.2%
Clarke 2002 ⁸⁰	UK	Emergency Department and Community	467 33 years 44% male	Case management to facilitate engagement in treatment	TAU	Yes	Deliberate self harm	Repetition of self harm	None	12 months	INT 19/220 TAU 25/247 Non significant differences	10.1%
Comtois 2011 ⁷³	USA	Emergency Department and Community	20 37 years 38% male	The Collaborative Assessment and Management of Suicidality (CAMS) is an approach to assessment and intervention that focused on suicide-related factors and current risk and ends with a treatment plan that always includes a crisis response plan.	TAU+	No	Suicide attempt or imminent risk	Repetition of suicide attempt	BSSI	12 months	INT 2/11 TAU 1/9 Statistical tests not conducted	11.1%
Hatcher 2015 ⁸²	New Zealand	Emergency Department and Community	684 36 years 34% male	Intensive follow-up to ensure engagement in problem solving therapy and including ongoing postcard contact	TAU	Yes	Self harm	Repetition of self harm	HADS, BHS	12 months	INT 86/737 TAU 75/737 Non significant differences	9.6%
Hatcher 2016 ⁶⁵	New Zealand (Maori)	Emergency Department and Community	167 32.3 35% male	Intensive follow-up to ensure engagement in problem solving therapy and including ongoing postcard contact	TAU	Yes	Self harm	Repetition of self harm	HADS, BHS	12 months	INT 34/95 TAU 29/72 Non significant difference at 12 months	40.3%
Hawton 1981 ⁴⁷	UK	Emergency Department and Community	96 25.3 years 30% male	Brief problem-oriented counselling delivered at home	Alternative controlled treatment comparison	No	Self poisoning	Repetition of self harm	None	12 months	INT 5/48 CNT (outpatient problem solving therapy) 7/48 Non significant difference	14.6%
Hvid 2011 ⁵⁵	Denmark	Emergency Department and Community	134 46 years for men and 34 years for women 28.5% male	Intensive intervention with solution focused counselling, rapid response and outreach	TAU	No	Suicide attempt or self harm	Repetition of suicide attempt	None	12 months	INT 6/69 TAU+ 14/65 Significant difference	21.5%
Kawanishi	Japan	Emergency	758	Assertive case	TAU+	Yes	Suicide	Repetition of	BHS (outcome)	18 months	INT 55/373	18.4%

2014 ⁸¹		Department and Community	42.3 years 43.8% male	management with focus on ensuring attendance at psychiatric treatment			attempt	suicide attempt or suicide	data not reported)		TAU+ 71/385 Non significant difference	
Litman 1976 ⁸⁶	USA	Community (Suicide prevention call line and follow-up)	400 Age and gender not reported	Volunteer continuing relationship management	TAU	Yes	“At Risk”	Repetition of suicide attempt	None	Unclear	No raw data reported; authors report non significant differences between intervention and TAU	Not reported
Marasinghe 2012 ⁵⁷	Sri Lanka	Emergency Department and Community	68 31.1 years 50% male	Problem solving approach, meditation, an intervention to increase social support, advice on reducing drug and alcohol use	Waitlist control	Yes	Suicide attempt	Repetition of self harm	BSSI, BDI	12 months	No raw data or analysis presented; authors state no difference between intervention group and TAU in DSH	No reported
Morthorst 2012 ⁹²	Denmark	Emergency Department and community	243 31 years 24% male	Assertive case management with rapid response, outreach and problem oriented approach	TAU	Yes	Suicide attempt	Repetition of suicide attempt	None	12 months	INT 20/123 TAU 13/120 Non significant differences	10.8%
van der Sande 1997 ⁵³	The Netherlands	Emergency Department and community	274 Age not reported 34% male	Inpatient admission plus outpatient problem oriented counselling	TAU	No	Suicide attempt	Repetition of suicide attempt	BHS	12 months	INT 24/140 TAU 20/134 Non significant differences	14.9%
van Heeringen 1995 ⁷⁹	Belgium	Emergency Department and community	391 Age not reported 57% male	Compliance enhancement treatment	TAU	No	Suicide attempt	Repetition of suicide attempt	None	12 months	INT 21/196 TAU 34/195 Significant difference	17.4%
Wei 2013 ⁵⁶	China	Emergency Department and Community	157 32.3 years 24% male	Telephone intervention that included psychological support and collaborative problem solving	No treatment	No	Suicide attempt (unclear but indication that it is first time attempters only)	Repetition of suicide attempt	BSSI	12 months	CBT 1/82 Telephone 1/80 No treatment 5/77 Non significant differences	6.5%
Welu 1977 ⁵⁴	USA	Emergency Department and Community	119 Age and gender not reported	Formulation driven intervention including psychotherapy, crisis	TAU	No	Suicide attempt	Repetition of suicide attempt	None	4 months	INT 3/62 TAU 9/57 Significant	15.8%

				intervention, family therapy or other technique								difference	
Other psychological													
Dubois 1999 ⁵⁸	France	Emergency Department and community	84 22.4 reported 20% male	Psychotherapy (no further description)	TAU	No	Suicide attempt	Repetition of self harm	None	12 months	INT 8/43 TAU 10/41 Non significant differences	24.4%	
Gysin-Maillart 2016 ⁶⁴	Switzerland	Emergency Department and Community	120 37.8 years 45% male	Attempted Suicide Short Intervention Program (ASSIP)	TAU	Yes	Suicide attempt	Repetition of suicide attempt	BSSI, BDI	24 months	INT 5/60 TAU 16/60 Significant differences	26.6%	
Tapolaa 2010 ⁸⁷	Finland	Emergency Department and community	16 34 years 0% male	Acceptance Commitment Therapy and Solution Focused Brief Therapy	TAU	Yes	Deliberate self harm	Frequency of self harm	BDI (outcome data not reported)	6 months	No raw data or analysis presented; authors state no difference between intervention and treatment as usual	Not reported	
Torhorst 1987 ⁵⁹	Germany	Emergency Department and community	141 Age not reported 37% male	Same therapist	Alternative controlled treatment comparison	Yes	Suicide attempt	Repetition of suicide attempt	None	12 months	Same therapist 12/68 Different therapist 4/73 Significant difference	5.5%	
Torhorst 1988 ⁶⁰	Germany	Emergency Department and community	80 Age and gender not reported	12 sessions of therapy delivered over 3 months	Alternative controlled treatment comparison	No	Suicide attempt (repeated)	Repetition of suicide attempt	None	12 months	Short term therapy 9/40 Long term therapy 9/40 Non significant differences	22.5%	
Other psychosocial													
Armitage 2016 ⁹¹	Malaysia	Emergency Department and self help	226 30.05 years 30.1% male	Self-generated plan not to self harm with or without a volitional help sheet	Alternative controlled treatment comparison	NA	Self harm	Suicidal ideation and behaviour (combined)	SBQ, BDI-II	3 months	No self harm outcomes; Significant difference between intervention groups and control group	Not reported	

Crawford 2010 ⁶¹	UK	Emergency Department and community	103 37.2 years 53% male	Appointment card for specialist outpatient appointment	TAU	No	Deliberate self harm and alcohol misuse	Repetition of self harm	None	6 months	INT 7/52 TAU 11/51 Non significant differences	21.6%
Grimholt 2015 ⁶²	Norway	Emergency Department and community	143 27.75 years 25.5% male	Structured GP consultations	TAU	Yes	Self poisoning	Repetition of self harm	BSSI, BDI, BHS	6 months	INT 8/60 TAU 11/83 No significant difference	13.3%
Mouaffak 2015 ⁸³	France	Emergency Department and community	302 38.8 years 24.7% male	Organisation of Suitable Monitoring for Suicide Attempters (OSTA)	TAU	Y	Suicide attempt	Repetition of suicide attempt	None	12 months	INT 22/152 TAU 21/150 Non significant differences	14%
O'Connor 2015 ⁸⁸	USA	Inpatient	30 41.35 years 73.3% male	Teachable moment brief intervention	TAU	Y	Suicide attempt	Suicidal ideation	BSSI	1 month	No self harm outcomes; no significant difference between groups on suicidal ideation reported	Not reported
Wang 2016 ⁷⁴	Taiwan	Emergency Department and community	64 37.95 years 26.6% male	Coping cards	TAU	Y	Suicide attempt	Repetition of suicide attempt	BSRS-R (single item for depression and suicidal ideation), BHS	3 months	INT 0/32 TAU 5/32 Significant differences	15.6%
Waterhouse 1990 ⁷²	UK	Emergency department and Inpatient	52 30 years 38% male	Hospital admission	TAU	No	Parasuicide	Repetition of parasuicide	BHS	4 months	Admission 3/27 Discharge 4/25 Non significant differences	16.0%

^a BSSI: Beck Scale for Suicidal Ideation; BDI: Beck Depression Inventory; BHS: Beck Hopelessness Scale; HADS: Hospital and Anxiety Depression Scale (Depression subscale); Brief Symptoms Rating Scale-Revised: BSRS-R; Suicidal Behaviours Questionnaire: SBQ