Supplemental eFigure 1. PRISMA Flowchart



	Rando	mization		Blinding	An account of all patients	Total score
	Mentioned randomization	Appropriate randomization	Mentioned blinding	Appropriate blinding	All patients' fate stated	
Agius et al (2007)	1	0	0	0	1	2
Albert et al (2016)	1	1	1	1	1	5
Bateman et al (2007)	1	0	0	0	1	2
Chan et al (2015)	1	0	1	0	1	3
Chan et al (2018)	1	0	1	0	1	3
Chen et al (2011)	1	0	0	0	1	2
Cunningham Owens et a. (2001)	1	1	1	1	1	5
Färdig et al (2011)	1	1	1	1	1	5
Kasckow et al (2016)	1	0	1	0	1	3
Moritz et al (2018)	1	1	1	1	1	5
Nordentoft et al (2002)	1	0	0	0	1	2
Peters et al. (2010)	1	1	1	1	1	5
Power et al (2003)	1	0	1	1	1	4
Tarrier et al. (2006)	1	1	1	1	1	5
Tarrier et al (2014)	1	1	1	1	1	5
Turkington et al (2002)	1	1	1	1	1	5
Total Score	16	8	12	9	16	mean = 3.81

Supplemental eTable 1. (Dualitv	rating	using.	Jadad	Scale	for rep	orting r	andomized	controlled	l trial	S
							· · O				

	Random Sequence Generation	Allocation Concealment	Blinding of Participants and Personnel	Blinding of Outcome Data	Incomplete Outcome Data	Selective Reporting	Other Bias
Agius et al (2007)	-	-	-	-	+	+	+
Albert et al (2016)	+	+	+	+	+	+	+
Bateman et al (2007)	+	?	?	?	+	+	?
Chan et al (2015)	-	-	-	-	+	+	+
Chan et al (2018)	-	-	-	-	+	+	+
Chen et al (2011)	-	-	-	-	+	+	?
Cunningham Owens et al (2001)	+	+	+	?	-	-	?
Färdig et al (2011)	+	+	?	+	+	+	+
Kasckow et al (2016)	+	+	-	-	+	+	+
Moritz et al (2018)	+	+	+	+	+	+	+
Nordentoft et al (2002)	?	?	?	?	+	+	+
Peters et al. (2010)	+	+	+	+	+	+	+
Power et al. (2003)	?	?	?	+	+	+	?
Tarrier et al. (2006)	+	+	?	+	+	+	+
Tarrier et al. (2014)	+	+	+	+	+	+	+
Turkington et al. (2002)	+	+	?	+	+	+	+
Number of "+"	10	9	5	8	15	15	12

Supplemental eTable 2. Cochrane collaboration's tool for assessing risk of bias*

Note. "+" = low risk of bias, "-" = high risk of bias, "?" = unclear risk of bias

Study	TE	SE	Weight	Odds Ratio IV, Random, 95% Cl	Odds Ratio IV, Random, 95% Cl
Albert et al., 2016	-0.21	0.0464	11.6%	0.81 [0.74; 0.89]	
Chan et al., 2015	-0.98	0.2479	10.0%	0.37 [0.23; 0.61]	
Chan et al., 2018	-0.36	0.1072	11.3%	0.70 [0.56; 0.86]	-+-
Turkington et al., 2002	-1.55	0.2677	9.7%	0.21 [0.13; 0.36]	- <u>-</u>
Chen et al., 2011	-0.23	0.0311	11.7%	0.79 [0.75; 0.84]	
Fardig et al., 2011	-2.25	0.7699	4.3%	0.11 [0.02; 0.48]	
Kasckow et al., 2016	-0.22	0.2586	9.8%	0.80 [0.48; 1.33]	
Peters et al., 2010	-0.89	0.3555	8.6%	0.41 [0.21; 0.83]	
Tarrier et al., 2014	-0.58	0.2721	9.7%	0.56 [0.33; 0.95]	
Agius et al., 2007	-1.72	1.2542	2.1%	0.18 [0.02; 2.10]	
Nordentoft et al., 2002	0.12	0.1401	11.1%	1.13 [0.86; 1.49]	Ŧ
Total (95% CI)			100.0%	0.54 [0.35; 0.83]	
Prediction interval Heterogeneity: Tau ² = 0.349	8: $Chi^2 = 54.20$	adf=10 (P<0	$(01): 1^2 = 82\%$	[0.13; 2.20]	
Heterogeneity. Tau = 0.548	0, 011 - 04.20	, ui = 10 (i < 0.	017,1 - 0270		01 051 2 10

Supplemental eFigure 2. Forest Plot of Meta-Analysis, Sensitivity Analysis

0.1 0.5 1 2 10 Favours treatment Favours control

Supplemental eFile: Appendix 1 Search Strategy

Search Key Terms:

("psychosis" or "psychotic" or "schizo*" or "hallucinat*" or "delusion*") AND ("suicid*") AND ("psychotherapy" or "psychosocial" or "intervention")

Electronic Databases:

- 1. Medline
- 2. PsycINFO
- 3. CIHNAL
- 4. Global Health
- 5. PsycARTICLES
- 6. Social Sciences Abstract
- 7. CoChrane Library
- 8. Dissertation

Note: all searches, except for Medline and CoChrane library, were searched using EBSCO platform which searched across multiple databases. For both Medline and CoChrane datasets, we compared our search results, with our institution's librarian who used dataset specific search term. The results were 98% same.

Manual Search of Four Major Psychiatry Journals:

- 1. JAMA Psychiatry
- 2. American Journal of Psychiatry
- 3. Psychiatry Services
- 4. Lancet Psychiatry

Two Professional Websites for Manual Search:

American Association of Suicidology: <u>https://www.suicidology.org/</u> Schizophrenia International Research Society: <u>https://schizophreniaresearchsociety.org/</u>

Search Criteria:

Inclusion:

- 1. Controlled trial
- 2. Non-medical, non-pharmacological
- 3. Suicide outcomes (4 types)
- 4. Current active psychotic symptoms
- 5. Written in English

Exclusion:

- History of psychosis or psychotic symptoms not current will exclude the study.
- If treatment include both psychotic and non-psychotic participants, we would include a study only if 65% of the participants reported psychotic symptoms.

Supplemental eFile: Appendix 2 Coding Sheet

SIP						
A - Ar	ticle Reference:					
1	Study ID:					
2	Author(S)					
3	Title of Article:					
4	Year					
5	Geographic area of the s	study				
	North America					
	Europe					
	Australia					
	Asia					
	Others					
B - Ty	pe of Report (Select On	ne):				
	1 Journal article					
	2 Book/book chapte	er				
	3 Gov't report: federal, state, local					
	4 Conference proceedings					
	5 Thesis or dissertati	ion				
	6 Unpublished repor	rt (non-gov. tech report, convention paper, etc.)				
	7 Other: specify					
C - De	escription of Participant	s (Intervention and Comparison groups):				
1	Total sample size of Int	ervention group.				
2	Total sample size of Co	mparison group:	_			
Con	ments if applicable:					
001	intento n'appreable.					
			Years			
3	Mean age of the study p	participants:	Old			
	~ .		%			
4	Gender:		Female			
5	Kace:		% White			
	Other categories:		0/0			
6	Marital Status:		Married			
7	Duration of Psychosis	Early / First episode				
	Mid-range: describe:					
		Chronic. vears				

8 Socio-economic status:	
Socio-economic status – Description:	
[e.g. poverty line, household income]	
	SIP
O - Research Design and Intervention Descr	riptors
T , , TT I	
Intervention Used	
1. Therapeutic intervention (CB1, I	(251) \Box
2. Supportive interventions (case m	anagement)
 Mixed intervention (therapeutic Other (specify): "modified assert 	ive treatment, family involvement, and social skill training"
Intervention Integrity (whether treatment effe	ect can be attributed to the intervention)
1. Individual treatment only	
2. Combined treatment	
Note: if combined treatment, a pre-defined dosag	e of 60% is required for an intervention/study to be included.
Study Design (Confidence of Causality)	
1. True experimental (RCT)	
2. Quasi-experimental	
Type of Comparison Group	
1. Compared to another active treat	tment 🗆
2. Treatment as usual as defined in	the text \Box
3. Wait listing / attention control	
4. Other: Two years of specialized e	early
intervention plus three year of tre	eatment as
usual If 4. Other, please specify: NA	
Intervention Format Designed (Levels of Int	agrention
1 Individual	
2 Family	
3 Small Group	
4 Mixed	
5. Other, specify	
Intervention Format (Delivery Methods)	
1. In-person, face-to-face	
2. Tele-health, face-to-face (real tim	ne)
3. Tele-health, not face-to-face (e.g.	phone)
4. Tele-health, pre-designed/progra	ummed
5. Mixed methods	
Intervention Setting	
1. Mental health outpatient clinic	

3. H 4. H 5. C If 4. Othe	ospital / inpatient settings ome based interventions other types of setting (specify) r types, please specify:	
Number a	nd Duration of Sessions	Sessions Minutes per sessions Duration (in weeks)
E – Treatme	ent Fidelity	
Interve 1. (e.g., ps 2. 3. 4. 5. Descril worker	ntion providers (select only one – if n Mental health professionals ychologist, psychiatrist, clinical social wo Medical doctors Nurses or nurse practitioners Other specialty physicians Interdisciplinary team be here: "psychiatrists, psychologists, s, physiotherapists, and vocational	nore than one profession, then interdisci.)
6.	Other, please specify	
Provid. 1. 2. 3. 4. 5. 6.	ers' educational backgrounds, if more Bachelor's degree holder Graduate/Master's level trainee Graduate/Master's degree holder Doctoral level trainee Doctoral degree holder Other, please specify: Not specified	than one, select 6 and then specify
Provid. 1. 2. 3. 4. 5.	ers' clinical experiences Seasoned practitioners (more than 5 Experienced practitioners (2 to 5 ye Some experiences (less than 2 years Limited experiences (intern or no ex Others, please specify: Not specifie	i years) ars)) xperience) d
Trainin 1. 2.	g provided? Yes No	
Superv 1.	ision provided? Yes	

2.	No	
F – Outcom	e Variables	
1.	Suicidal ideation	
2.	Suicidal plan	
3.	Suicidal attempt	
4.	Suicidal death	
Standa Describ	rdized measures: be here:	
L		

- Agius M, Shah S, Ramkisson R, et al. Three year outcomes of an early intervention for psychosis service as compared with treatment as usual for first psychotic episodes in a standard community mental health team final results. *Psychiat Danub*. 2007.
- Albert N, Melau M, Jensen H, Emborg C, et al. Five years of specialised early intervention versus two years of specialised early intervention followed by three years of standard treatment for patients with a first episode psychosis: randomised, superiority, parallel group trial in Denmark (OPUS II). *BMJ Brit Med J.* 2017;356:i6681.
- Bateman K, Hansen L, Turkington D, et al. Cognitive behavioral therapy reduces suicidal ideation in schizophrenia: results from a randomized controlled trial. *Suicide Life-Threat*. 2007;37(3):284-90.
- 4. Chan SK, So HC, Hui CL, et al. 10-year outcome study of an early intervention program for psychosis compared with standard care service. *Psychol Med.* 2015;45(6):1181-93.
- Chan SK, Chan SW, Pang HH, et al. Association of an early intervention service for psychosis with suicide rate among patients with first-episode schizophrenia-spectrum disorders. *JAMA Psychiat*. 2018;75(5):458-64
- Chen EY, Tang JY, Hui CL, et al. Three year outcome of phase specific early intervention for first - episode psychosis: a cohort study in Hong Kong. *Early Interv Psychiat*. 2011;5(4):315-23.
- Cunningham Owens DG, Carroll A, Fattah S, et al. A randomized, controlled trial of a brief interventional package for schizophrenic out-patients. *Acta Psychiatr Scand.* 2001;103:362-369.

- Färdig R, Lewander T, Melin L, et al. A randomized controlled trial of the illness management and recovery program for persons with schizophrenia. *Psychiat Serv*. 2011;62(6):606-12.
- Kasckow J, Zickmund S, Gurklis J, et al. Using telehealth to augment an intensive case monitoring program in veterans with schizophrenia and suicidal ideation: A pilot trial. *Psychiat Res.* 2016;239:111-6.
- Moritz S, Mahlke CI, Westermann S, et al. Embracing psychosis: a cognitive insight intervention improves personal narratives and meaning-making in patients with schizophrenia. *Schizophr Bull.* 2017;44(2):307-16.
- 11. Nordentoft M, Jeppesen P, Abel M, et al. OPUS study: suicidal behaviour, suicidal ideation and hopelessness among patients with first-episode psychosis: one-year follow-up of a randomised controlled trial. *Brit J Psychiat*. 2002;181(S43):s98-106.
- 12. Peters E, Landau S, McCrone P, et al. A randomized controlled trial of cognitive behavior therapy for psychosis in a routine clinical service. *Acta Psychiatr Scand*. 2010;122:302-318.
- 13. Power PJ, Bell RJ, Mills R, et al. Suicide prevention in first episode psychosis: the development of a randomised controlled trial of cognitive therapy for acutely suicidal patients with early psychosis. *Aust NZ J Psychiat*. 2003;37(4):414-20.
- 14. Tarrier N, Haddock G, Lewis S, et al. Suicide behavior over 18 months in recent onset schizophrenic patients: The effects of CBT. *Schizophr Res.* 2006;83:15-27.
- 15. Tarrier N, Kelly J, Maqsood S, et al. The cognitive behavioural prevention of suicide in psychosis: a clinical trial. *Schizophr Res.* 2014;156(2-3):204-10.
- 16. Turkington D, Kingdon D, Turner T. Effectiveness of a brief cognitive–behavioural therapy intervention in the treatment of schizophrenia. *Brit J Psychiat.* 2002;180(6):523-7.