

Best Evidence Summaries of Topics in Mental Healthcare

BEST in MH *clinical question-answering service*

Question

In adults with psychosis, how effective are group therapies and interventions, compared to individual therapies and interventions, in improving patient outcomes?

Clarification of question using *PICO* structure

Patients: Adults with psychosis

Intervention: Group therapies and interventions

Comparator: Individual therapies and interventions

Outcome: Improving patient outcomes

Plain language summary

There is limited high quality evidence that looks into the efficacy of group interventions compared to individual interventions, for adults with psychosis. More well-conducted trials are required to determine the most effective therapy for improving symptoms of psychosis.

Clinical and research implications

One small RCT (n = 100) found some evidence that group psychotherapy participants were significantly more likely to still be in active therapy after 12 months, and have better overall outcomes at 24 months compared to those receiving individual psychotherapy. Another small RCT (n = 26) found no significant differences between group and individual cognitive differentiation therapies. As both were poor quality trials there is a lack of high quality evidence comparing group and individual therapies in adults with psychosis and further, large RCTs are needed with longer follow-up periods.

What does the evidence say?

Number of included studies/reviews (number of participants)

Two randomised controlled trials (RCTs) with a total of 126 participants were included for this question. One was a small pilot RCT in 26 participants in Spain with schizophrenia and cognitive impairment which compared group and individual cognitive differentiation programs of Integrated Psychological Therapy (Ruiz et al. (2011)). The other RCT was in 100 participants in the US following discharge from a mental hospital with a diagnosis of schizophrenia and evidence of a psychotic episode and it compared standard group and individual psychotherapy (O'Brien et al. (1972)).

Main findings

The RCT by O'Brien et al. (1972) found that after 12 months significantly more group psychotherapy participants were still in active therapy compared with individual psychotherapy (76% vs. 46%) but there was no significant difference by 24 months. There were no significant differences between group and individual psychotherapy in rehospitalisation rates at 12 or 24 months. Overall outcomes were scored from 1 (better) to 4 (worse) based on rehospitalisation, and improvement on the Brief Psychiatric Rating Scale (BPRS) and social effectiveness scale. At 24 months group psychotherapy participants had significantly greater improvements in overall outcome compared with individual psychotherapy.

The pilot RCT by Ruiz et al. (2011) found no significant differences between group and individual cognitive differentiation therapy for symptoms, functional outcomes or cognition tests after up to 14 weeks of therapy. When analysing the change within each therapy group, group therapy participants had significant improvements in picture completion, arithmetic and BPRS score but the individual therapy participants had significant improvements in picture completion only.

Authors' conclusions

O'Brien et al. (1972) concluded that group psychotherapy patients had significantly more clinical improvement compared with individual psychotherapy patients, and these differences could not be accounted for by patient or therapist characteristics.

Ruiz et al. (2011) concluded that the cognitive differentiation program of Integrated Psychological Therapy when given in a group format showed better results for executive functioning, but the individual format had better outcomes on attention measures.

Reliability of conclusions/Strength of evidence

Both RCTs were small and at a high risk of bias. One was very old and had been reported before the existence of reporting guidelines such as the CONSORT statement for RCTs. The other was a pilot RCT and had not been designed to have sufficient statistical power to detect between group differences. Neither trial reported the methods of randomisation or allocation concealment, participants could not have been blinded to the therapy group and it was not reported if the outcomes were measured without knowledge of the therapy group. Overall there is a lack of high quality evidence for this question.

What do guidelines say?

NICE guidelines for psychosis and schizophrenia in adults (CG178, 2014) do not comment on the use of group interventions but makes the following recommendations regarding individual interventions;

If a person is considered to be at increased risk of developing psychosis then offer individual cognitive behavioural therapy (CBT) with or without family intervention. (pp.15)

For people with first episode psychosis offer oral antipsychotic medication in conjunction with psychological interventions (family intervention and individual CBT) (pp.18)

Date question received: 08/02/2016

Date searches conducted: 16/02/2016

Date answer completed: 04/04/2016

References**Randomised controlled trials**

O'Brien, CP. Hamm, KB. Ray, BA. Pierce, JF. Luborsky, L. Mintz, J. (1972). Group vs Individual Psychotherapy with Schizophrenics. A controlled outcome study. *Archives of general psychiatry*, 27(4), 474-478.

Ruiz, JC. Fuentes, I. Roder, V. Tomas, P. Dasi, C. Soler, MJ. (2011). Effectiveness of the Cognitive Differentiation Program of the Integrated Psychological Therapy: group versus individual treatment. *The Journal of nervous and mental disease*, 199(12), 978-82.

Guidelines

National Institute for Health and Care Excellence. (2014) Psychosis and schizophrenia in adults: prevention and management CG178. NICE: London.

<https://www.nice.org.uk/guidance/cg178/resources/psychosis-and-schizophrenia-in-adults-prevention-and-management-35109758952133>

Results

Randomised controlled trials

Author (year)	Inclusion criteria	Number of participants	Summary of results	Risk of bias
O'Brien et al (1972)	<p>Participants: Patients referred to the Southeastern Mental Health Clinic in New Orleans following discharge from a state mental hospital with a discharge diagnosis of "schizophrenia" and hospital records with clear evidence of a psychotic episode.</p> <p>Intervention: Group psychotherapy: group therapy as given in the clinic fitted into the usual weekly, bi-weekly or monthly sessions.</p> <p>Comparator: Individual psychotherapy: individual therapy as given in the clinic fitted into the usual weekly, bi-weekly or monthly sessions.</p> <p>Outcome: Overall outcome at 24 months was scaled from 1 to 4:</p> <ol style="list-style-type: none"> 1. No rehospitalisation and improvement of at least 20% in both the Brief Psychiatric Rating Scale (BPRS) and the social effectiveness scale. 2. No rehospitalisation and improvement (20%) in either social effectiveness or BPRS. 3. No rehospitalisation and either worsening or no significant change (<20%) on both scales. 	<p>N = 100 (N = 50 group psychotherapy, N = 50 individual psychotherapy)</p> <p>Recruitment started August 1967</p>	<p>Groups were similar at baseline for the mean age at the onset of illness (group 27.6 years, individual 27.3 years); mean number of hospitalisations (group 2.8, individual 2.9), mean age at the start of the study (group 37.4 years, individual 36.1 years), although there were more men in group psychotherapy (36%) compared to individual psychotherapy (32%).</p> <p>After 12 months significantly more group psychotherapy participants (76%) were still in active therapy compared to individual psychotherapy participants (46%, $p = 0.004$). However there was no statistically significant difference at 24 months in the numbers still in active therapy (group 22%, individual 10%). There were no statistically significant differences between group and individual psychotherapy in rehospitalisation rates at 12 months (12% group, 24% individual) or 24 months (24% group, 40% individual).</p> <p>Overall outcome ratings at 24 months showed that</p>	<p>High</p> <p>No details were provided about the methods of randomisation and allocation concealment.</p> <p>Participants and personnel were not blinded as it would have been clear if they were in group or individual therapy. It was unclear if outcome assessment was blinded to treatment.</p>

	<p>4. Rehospitalisation or dropout with worsening or no change on the rating scales.</p> <p>At 12 and 24 months: return to hospital, remaining in therapy, frequency of visits and drug use were also measured.</p>		<p>group therapy participants had significantly greater ($p < 0.01$) improvements in overall ratings compared to individual therapy participants. Improvements on the Social Effectiveness scale were significantly smaller with individual compared with group psychotherapy.</p> <p>All participants were on therapeutic doses of phenothiazine drugs at the start of the study and only two were told to stop using these during the first 6 months of outpatient care.</p>	<p>13 dropouts (26%) were excluded from the analysis. Not all the outcomes were clearly reported.</p>
Ruiz et al (2011)	<p>Participants: Participants from the Centre for Rehabilitation and Social Integration-Velluters in Spain who fulfilled the following criteria: diagnosis of schizophrenia according to DSM-IV, IQ > 70 measured using a Weschler Adult Intelligence ScaleYVIII (WAIS-III) reduced version and cognitive impairment (either >24 errors in the Wisconsin Care Sorting Test or significant differences in any two subtests of the WAIS-III).</p> <p>Intervention: Group cognitive differentiation program of integrated psychological therapy (CDg). Twice weekly, 45 minute sessions for 14 weeks.</p> <p>Comparator: Individual cognitive differentiation program of integrated psychological therapy (CDi). Twice weekly, 20</p>	<p>N = 26 (N = 13 CDg, N = 13 CDi)</p>	<p>The CDg and CDi groups were similar at baseline apart from the CDg group having a significantly higher BPRS score (mean 19.09 vs. 10.09, $p = 0.016$). The mean ages were 40.3 years (CDg) and 37.3 years (CDi), most participants were male (95%), and the mean number of years since diagnosis were 20.5 (CDg) and 18.4 (CDi).</p> <p>There were no statistically significant differences between the CDg and CDi groups for any outcome measure. However, this was a pilot study with 22 of the original 26 participants included in the analysis so it was not designed to detect significant between group differences.</p> <p>For the change within each treatment group, CDg</p>	<p>High</p> <p>No details were provided about the methods of randomisation and allocation concealment.</p> <p>It was stated the trial was single-blind but it was not clear to whom this applied as participants</p>

	<p>minute sessions for 7 to 10 weeks.</p> <p>Outcome: Symptoms measured by the Brief Psychiatric Rating Scale (BPRS 18-item, Spanish version).</p> <p>Functional outcome measured by the Life Skill Profile (LSP 39-item, with high scores indicating good quality functioning).</p> <p>Working memory using the digit span and arithmetic subtests of the WAIS-III.</p> <p>Attention using the picture completion subtests of the WAIS-III></p> <p>Memory using the Rivermead Behavioural Memory Test (RBMT).</p> <p>Outcomes were measured at baseline and post-test (10 to 14 weeks).</p>		<p>participants had significant improvements in picture completion with an effect size (ES) of 1.01 ($p < 0.04$), arithmetic (ES = 0.32, $p = 0.021$) and BPRS score (ES = 0.75, $p = 0.019$). The CDi group had significant improvements in picture completion (ES = 1.04, $p < 0.021$) only.</p>	<p>would know if they were in group or individual therapy. It was unclear if the outcome assessment was blind.</p> <p>Four dropouts (15%) were excluded from the analysis. Between group differences were not clearly reported.</p>
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Risk of bias

Randomised controlled trials

Study	RISK OF BIAS					
	Random allocation	Allocation concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data	Selective Reporting
O'Brien et al (1972)	?	?	☹️	?	☹️	☹️
Ruiz et al (2011)	?	?	☹️	?	☹️	☹️

😊 Low risk

☹️ High risk

? Unclear risk

Search details

Source	Search Strategy	Number of hits	Relevant evidence identified
<i>Guidelines</i>			
NICE	Psychosis		
<i>Systematic Reviews</i>			
MEDLINE	<ol style="list-style-type: none"> 1 Psychotherapy, Group/ (12565) 2 (group adj2 therap\$.ab,ti. (15803) 3 (group adj2 intervention\$.ab,ti. (22031) 4 1 or 2 or 3 (46175) 5 Psychotic Disorders/ (38725) 6 Schizophrenia/ (87078) 7 (psychosis\$ or psychotic\$.ab,ti. (46464) 8 schizophren\$.ab,ti. (98599) 9 5 or 6 or 7 or 8 (161565) 10 4 and 9 (1494) 11 (systematic\$ review\$ or meta-analytic\$ or metanalysis or metaanalysis or meta analysis or meta?synthesis or meta synthesis or meta?regression or meta regression).ab,ti. (129321) 12 ((synthes\$ adj3 (literature or evidence)) or integrative review or data synthesis or research synthesis or narrative synthesis or systematic study or systematic studies or systematic comparison\$ or systematic overview\$ or evidence based review or comprehensive review or critical review or quantitative review or structured review or realist review or realist synthesis).ab,ti. (49788) 13 exp Meta-Analysis/ (61543) 14 meta-analysis.ab,ti,pt. (91081) 15 11 or 12 or 13 or 14 (184045) 16 (medline or pubmed or Cochrane or embase or cinahl or psyc?lit or psyc?info).ab. (113345) 17 ((literature adj3 search\$) or (database\$ adj3 search\$) or (bibliographic adj3 search\$) or (electronic adj3 search\$) or (electronic adj3 database\$) or (computeri?ed adj3 search\$) or (internet adj3 search\$) or included studies or (inclusion 	108	

	<p>adj3 studies) or inclusion criteria or selection criteria or predefined criteria or predetermined criteria).ab. (133783)</p> <p>18 ((assess\$ adj3 (quality or validity)) or (select\$ adj3 (study or studies)) or (data adj3 extract\$) or extracted data or (data adj2 abstracted) or (data adj3 abstraction) or published intervention\$ or ((study or studies) adj2 evaluat\$) or (intervention\$ adj2 evaluat\$) or confidence interval\$ or heterogeneity or pooled or pooling or odds ratio\$ or Jadad or coding).ab. (814362)</p> <p>19 16 or 17 or 18 (936414)</p> <p>20 review.pt. (2064794)</p> <p>21 19 and 20 (144577)</p> <p>22 19 and 20 (144577)</p> <p>23 (review\$ adj4 (papers or trials or studies or evidence or intervention\$ or evaluation\$)).ab.ti. (120826)</p> <p>24 15 or 19 or 21 or 22 (1014826)</p> <p>25 (letter or editorial or comment).pt. (1455023)</p> <p>26 24 not 25 (1007020)</p> <p>27 Animals/ (5766662)</p> <p>28 Humans/ (15660680)</p> <p>29 27 not 28 (4154861)</p> <p>30 26 not 29 (917746)</p> <p>31 10 and 30 (108)</p>		
EMBASE	<p>1 (psychosis\$ or psychotic\$.ti,ab. (70218)</p> <p>2 *psychosis/th [Therapy] (3570)</p> <p>3 *schizophrenia/th [Therapy] (6816)</p> <p>4 1 or 2 or 3 (77247)</p> <p>5 (group adj2 therap\$.ti,ab. (23553)</p> <p>6 (group adj2 intervention\$.ti,ab. (30729)</p> <p>7 group therapy/ (19004)</p> <p>8 5 or 6 or 7 (66654)</p> <p>9 4 and 8 (1330)</p> <p>10 (systematic\$ review\$ or systematic\$ literature review\$ or meta-analytic\$ or meta?analysis or metanalysis or meta analysis or meta?synthesis or meta synthesis or meta?regression or meta regression).ab.ti. (169674)</p> <p>11 ((synthes\$ adj3 literature) or (synthes\$ adj3 evidence) or (synthes\$ adj2 qualitative) or integrative review or data synthesis or research synthesis or narrative synthesis or systematic study or systematic studies or systematic</p>	73	

	<p>comparison\$ or systematic overview\$).ab,ti. (32037)</p> <p>12 ((systematic adj2 search\$) or systematic\$ literature research\$ or (review adj3 scientific literature) or (literature review adj2 side effect\$) or (literature review adj2 adverse effect\$) or (literature review adj2 adverse event\$) or (evidence-based adj2 review) or (evidence-based adj2 review)).ab,ti. (19053)</p> <p>13 (comprehensive review or critical review or critical analysis or quantitative review or structured review or realist review or realist synthesis or (pooled adj2 analysis) or (pooled data adj6 (studies or trials)) or (medline and (inclusion adj3 criteria)) or (search adj (strateg\$ or term\$))).ab,ti. (77271)</p> <p>14 exp "systematic review"/ (101545)</p> <p>15 meta analysis/ (104164)</p> <p>16 (Medline or pubmed or Cochrane or embase or cinahl or psyc?lit or psyc?info or lilacs or (literature adj3 search\$) or (database\$ adj3 search\$) or (bibliographic adj3 search\$) or (electronic adj3 search\$) or (electronic adj3 database\$) or (computeri?ed adj3 search\$) or (internet adj3 search\$)).ab. (193458)</p> <p>17 ((inclusion adj3 studies) or inclusion criteria or selection criteria or predefined criteria or predetermined criteria or (assess\$ adj3 (quality or validity)) or (select\$ adj3 (study or studies)) or (data adj3 extract\$) or extracted data or (data adj2 abstracted)).ab. (234850)</p> <p>18 ((data adj3 abstraction) or published intervention\$ or ((study or studies) adj2 evaluat\$) or (intervention\$ adj2 evaluat\$) or confidence interval\$ or heterogeneity or pooled or pooling or odds ratio\$ or (Jadad or coding) or evidence-based).ab. (968943)</p> <p>19 10 or 11 or 12 or 13 or 14 or 15 (300086)</p> <p>20 16 or 17 or 18 (1254289)</p> <p>21 review.pt. (2128381)</p> <p>22 20 and 21 (152661)</p> <p>23 review.ti. (359123)</p> <p>24 20 and 23 (79964)</p> <p>25 (review\$ adj10 (papers or trials or trial data or studies or evidence or intervention\$ or evaluation\$ or outcome\$ or findings)).ab,ti. (353753)</p> <p>26 (retriev\$ adj10 (papers or trials or studies or evidence or intervention\$ or evaluation\$ or outcome\$ or findings)).ab,ti. (17614)</p> <p>27 19 or 22 or 24 or 25 or 26 (638800)</p> <p>28 (letter or editorial).pt. (1423975)</p> <p>29 27 not 28 (630531)</p>		
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	<p>30 exp animal/ (21123553) 31 nonhuman/ (4685261) 32 30 or 31 (22463965) 33 human/ (16585198) 34 32 not 33 (5878767) 35 29 not 34 (602835) 36 ("cochrane database of systematic reviews" or "the cochrane database of systematic reviews").jn. (12505) 37 35 not 36 (591452) 38 conference abstract.pt. (2145768) 39 37 not 38 (515155) 40 9 and 39 (73)</p>		
PsycINFO/CINAHL	<p>1 exp Group Psychotherapy/ (20705) 2 exp Group Intervention/ (1396) 3 (group adj2 therap\$).ab,ti. (14485) 4 (group adj2 intervention\$).ab,ti. (11227) 5 1 or 2 or 3 or 4 (36972) 6 *Psychosis/ (18475) 7 (psychosis\$ or psychotic\$).ab,ti. (58490) 8 6 or 7 (60190) 9 5 and 8 (1003) 10 (Cochrane\$ or review or overview or (review adj2 literature) or (synthes\$ adj3 (literature\$ or research or studies or data))).ti. (134815) 11 (meta analysis or literature review or systematic review).md. (128660) 12 (pooled analys\$ or ((data adj2 pool\$) and studies) or ((hand or manual\$ or database\$ or computer\$ or electronic\$) adj2 search\$) or ((electronic\$ or bibliographic\$) adj2 (database\$ or data base\$))).ab,ti. (9552) 13 exp Meta Analysis/ (3781) 14 10 or 11 or 12 or 13 (233322) 15 (comment reply or editorial or letter or review book or review media).dt. (279749) 16 (electronic collection or dissertation abstract or encyclopedia).pt. (450395) 17 (rat or rats or mouse or mice or hamster or hamsters or animal or animals or dog or dogs or cat or cats or bovine or sheep).ab,sh,ti. (284297)</p>	32	

	18 15 or 16 or 17 (949015) 19 14 not 18 (140797) 20 9 and 19 (32)		
<i>Primary Studies</i>			
MEDLINE	1 Psychotherapy, Group/ (12565) 2 (group adj2 therap\$).ab,ti. (15803) 3 (group adj2 intervention\$).ab,ti. (22031) 4 1 or 2 or 3 (46175) 5 Psychotic Disorders/ (38725) 6 Schizophrenia/ (87078) 7 (psychosis\$ or psychotic\$).ab,ti. (46464) 8 schizopren\$.ab,ti. (98599) 9 5 or 6 or 7 or 8 (161565) 10 4 and 9 (1494) 11 "randomized controlled trial".pt. (406964) 12 (random\$ or placebo\$ or single blind\$ or double blind\$ or triple blind\$).ti,ab. (889522) 13 (retraction of publication or retracted publication).pt. (8520) 14 11 or 12 or 13 (983010) 15 (animals not humans).sh. (4154861) 16 ((comment or editorial or meta-analysis or practice-guideline or review or letter or journal correspondence) not "randomized controlled trial").pt. (3531362) 17 (random sampl\$ or random digit\$ or random effect\$ or random survey or random regression).ti,ab. not "randomized controlled trial".pt. (56432) 18 14 not (15 or 16 or 17) (729430) 19 10 and 18 (344)	344	
EMBASE	1 (group adj2 therap\$).ti,ab. (23553) 2 (group adj2 intervention\$).ti,ab. (30729) 3 group therapy/ (19004) 4 1 or 2 or 3 (66654) 5 (psychosis\$ or psychotic\$).ti,ab. (70218) 6 *psychosis/th [Therapy] (3570)	307	

	<p>7 *schizophrenia/th [Therapy] (6816) 8 5 or 6 or 7 (77247) 9 (random\$ or placebo\$ or single blind\$ or double blind\$ or triple blind\$).ti,ab. (1166780) 10 RETRACTED ARTICLE/ (7912) 11 9 or 10 (1174495) 12 (animal\$ not human\$).sh,hw. (3981623) 13 (book or conference paper or editorial or letter or review).pt. not exp randomized controlled trial/ (4308067) 14 (random sampl\$ or random digit\$ or random effect\$ or random survey or random regression).ti,ab. not exp randomized controlled trial/ (69329) 15 11 not (12 or 13 or 14) (905365) 16 4 and 8 (1330) 17 15 and 16 (307)</p>		
PsycINFO/CINAHL	<p>1 exp Group Psychotherapy/ (20705) 2 exp Group Intervention/ (1396) 3 (group adj2 therap\$).ab,ti. (14485) 4 (group adj2 intervention\$).ab,ti. (11227) 5 1 or 2 or 3 or 4 (36972) 6 *Psychosis/ (18475) 7 (psychosis\$ or psychotic\$).ab,ti. (58490) 8 6 or 7 (60190) 9 5 and 8 (1003) 10 (random\$ or placebo\$ or single blind\$ or double blind\$ or triple blind\$).ti,ab. (173018) 11 (animals not humans).sh. (6268) 12 exp Clinical Trials/ (9354) 13 random*.mp. (151622) 14 12 not 13 (4019) 15 10 not (11 or 14) (172407) 16 9 and 15 (124)</p>	124	

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