TECHNICAL COMMENTARY

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Psychodynamic psychotherapy

Introduction

Psychodynamic psychotherapy and psychoanalysis are types of individual psychotherapy which attempt to explore the influence of a person's previous emotional experiences on their current mental state, particularly in the context of the 'transference' of feelings from one focus to another. The methods employ free association, recall and interpretation of dreams, and exploration of 'resistance' to recovery. This is a controversial approach that has gained more support since the inclusion of other elements, such as supportive and directive techniques[1]. However, they are usually only used in the treatment of schizophrenia when they are integrated into a multi-modal treatment program, incorporating other evidence-based pharmaceutical and psychosocial interventions[1, 2].

Method

We have included only systematic reviews (systematic literature search, detailed methodology with inclusion/exclusion criteria) published in full text, in English, from the year 2000 that report results separately for people with a diagnosis of schizophrenia, schizoaffective disorder, schizophreniform disorder or first episode schizophrenia. Reviews were identified by searching the databases MEDLINE, EMBASE, CINAHL, Current Contents, PsycINFO and the Cochrane library. Hand searching reference lists of identified reviews was also conducted. When multiple copies of reviews were found, only the most recent version was included. Reviews with pooled data are prioritised for inclusion.

Review reporting assessment was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist that describes a preferred way to present a meta-analysis[3]. Reviews rated as having less than 50% of items checked have been excluded from the library. The PRISMA flow diagram is a suggested way of providing information about studies included and excluded with reasons for exclusion. Where no flow diagram has been presented by individual reviews, but identified studies have been described in the text, reviews have been checked for this item. Note that early reviews may have been guided by less stringent reporting checklists than the PRISMA, and that some reviews may have been limited by journal guidelines.

Evidence was graded using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) Working Group approach where high quality evidence such as that gained from randomised controlled trials (RCTs) may be downgraded to moderate or low if review and study quality is limited, if there is inconsistency in results, indirect comparisons, imprecise or sparse data and high probability of reporting bias. It may also be downgraded if risks associated with the intervention or other matter under review are high. Low quality evidence such as that gained from observational studies may be upgraded if effect sizes are large or if there is a dose dependent response. We have also taken into account sample size and whether results are consistent, precise and direct with low associated risks [4]. The resulting table represents an objective summary of the available evidence, although the conclusions are solely the opinion of staff of NeuRA (Neuroscience Research Australia).

Results

We found two systematic reviews that met our inclusion criteria[1, 2].

- Low quality evidence is unclear as to the benefit of individual psychodynamic psychotherapy compared to medication or to other psychosocial treatments for mental state or global outcomes.

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Gottdiener WH, Haslam N

The benefits of individual psychotherapy for people diagnosed with schizophrenia: A meta-analytic review

Ethical Human Sciences and Services 2002; 4(3): 63-187

View review abstract online

Comparison	**Individual psychodynamic psychotherapy plus antipsychotic medication vs. routine care or any other treatment (average treatment duration 20 months, 1 session per week).**
Summary of evidence	**Low quality evidence (precise, unable to assess consistency or sample size, indirect) is unclear as to any benefit of psychodynamic psychotherapy for symptom severity.**
Mental state	
A significant, medium-size improvement in symptoms over time; r = 0.39, 95%CI 0.21 to 0.44, number of studies, N and p not reported	
Consistency in results‡	Unable to assess, no measure of consistency is reported.
Precision in results§	Precise
Directness of results‖	Indirect comparison

Malmberg L, Fenton M, Rathbone J

Individual psychodynamic psychotherapy and psychoanalysis for schizophrenia and severe mental illness

Cochrane Database of Systematic Reviews 2009; 3: CD001360

View review abstract online

Comparison 1	**Individual psychodynamic psychotherapy alone vs. antipsychotic treatment alone (treatment duration 6-12 months).**
Summary of evidence	**Low quality evidence (imprecise, 1 RCT per comparison) is unclear as to any benefit of individual psychodynamic**

	psychotherapy compared to medication.
Mental state	
More participants in the psychodynamic psychotherapy group were not ready for discharge at the end of treatment compared to those receiving antipsychotics; 1 RCT, N = 94, RR = 8.35, 95%CI 2.03 to 34.30, *p* = 0.0033 *Fewer participants receiving psychodynamic psychotherapy required medication by the end of treatment (12 months) and at 3 year follow up, compared to those in the medication group (requiring additional medication);* 12 months: 1 RCT, N = 94, RR = 0.64, 95%CI 0.50 to 0.81, *p* = 0.00020 3 years: N = 94, RR 0.85 CI 0.75 to 0.96, *p* = 0.012 *More participants receiving medication achieved a 'best level of health' rating from their care team compared to those receiving psychodynamic psychotherapy;* 1 RCT, N = 92, MD = 5.80, 95%CI 1.61 to 9.99, *p* = 0.0067 *More participants receiving psychodynamic psychotherapy were rated as 'unsuccessful treatment' by their care team compared to those receiving medications;* 1 RCT, N = 92, RR = 16.36, 95%CI 2.25 to 118.81, *p* = 0.0057 *No significant difference between groups in rates of rehospitalisation;* 1 RCT, N = 24, RR = 0.63, 95%CI 0.29 to 1.36, *p* = 0.24 *No significant difference in the number of participants who had committed suicide at the 3 year follow up;* 1 RCT, N = 94, RR = 0.52, 95%CI 0.05 to 5.56, *p* = 0.59	
Consistency in results	Not applicable – all outcomes are 1 RCT.
Precision in results	Imprecise
Directness of results	Direct
Comparison 2	**Individual psychodynamic psychotherapy plus antipsychotic medication vs. antipsychotic treatment alone (treatment duration 6-12 months).**
Summary of evidence	**Low quality evidence (imprecise, 1 RCT per comparison) is unclear as to any benefit of individual psychodynamic psychotherapy plus medication compared to medication alone.**
Mental state	

No significant difference in the number of participants who were not ready for discharge at the end of treatment; 1 RCT, N = 92, RR = 1.09, 95%CI 0.16 to 7.42, *p* = 0.93 *No significant difference in the number of participants who required additional medication;* 1 RCT, N = 92, RR = 0.95, 95%CI 0.85 to 1.06, *p* = 0.35 *No significant difference between groups in the number of participants who achieved a 'best level of health' rating from their care team;* 1 RCT, N = 90, MD = -0.80, 95%CI -5.35 to 3.75, *p* - 0.73 *No significant difference between groups in the number of participants who were rated as 'unsuccessful treatment' by their care team compared to those receiving medications;* 1 RCT, N = 92, RR = 2.18, 95%CI 0.20 to 23.23, *p* = 0.52 *No significant difference between groups in rates of rehospitalisation;* 1 RCT, N = 24, RR = 1.0, 95%CI 0.39 to 2.58, *p* = 1.00 *No significant difference in the number of participants who had committed suicide at the 3 year follow up;* 1 RCT, N = 92, RR = 0.16, 95%CI 0.01 to 2.93, *p* = 0.21	
Consistency in results	Not applicable – all outcomes are 1 RCT.
Precision in results	Imprecise
Directness of results	Direct
Comparison 3	**Individual psychodynamic psychotherapy plus antipsychotic medication vs. individual psychodynamic psychotherapy alone.**
Summary of evidence	**Low quality evidence (imprecise, 1 RCT per comparison) is unclear as to any benefit of psychodynamic psychotherapy plus medication compared to psychodynamic psychotherapy alone.**
Mental state	
No significant difference between groups in rates of rehospitalisation; 1 RCT, N = 24, RR = 1.0, 95%CI 0.39 to 2.58, *p* = 1.0	
Consistency in results	Not applicable – all outcomes are 1 RCT.
Precision in results	Imprecise
Directness of results	Direct

Comparison 4	**Insight-oriented psychodynamic psychotherapy vs. reality-adaptive psychotherapy.**
Summary of evidence	**Low quality evidence (imprecise, 1 RCT per comparison) is unclear as to any benefit of insight-oriented psychodynamic psychotherapy compared to reality-adaptive psychotherapy.**
Global state	
Significant, medium to large effects of less participants leaving the study early in the insight-oriented psychodynamic group; At 6 months: 1 RCT, N = 164, RR = 0.46, 95%CI 0.31 to 0.68, *p* = 0 000093 At 12 months: 1 RCT, N = 164, RR = 0.46, 95%CI 0.34 to 0.62, *p* < 0.00001 At 24 months: 1 RCT, N = 164, RR = 0.54, 95%CI 0.44 to 0.67, *p* < 0.00001 *No significant difference between groups in participants' ability to uphold major household responsibilities;* 1 RCT, N = 164, RR = 1.13, 95%CI 0.99 to 1.29, *p* = 0.060 *No significant difference between groups in participants' ability to uphold a significant long-term relationship;* 1 RCT, N = 164, RR = 1.08, 95%CI 0.96 to 1.21, *p* = 0.20 *No significant difference between groups in participants' ability to be self-supporting/independent;* 1 RCT, N = 164, RR = 1.05, 95%CI 0.90 to 1.23, *p* = 0.51 *No significant difference between groups in rates of rehospitalisation;* 1 RCT, N = 164, RR = 1.20, 95%CI 0.93 to 1.56, *p* = 0.17	
Consistency in results	Not applicable – all outcomes are 1 RCT.
Precision in results	Precise
Directness of results	Direct
Comparison 5	**Individual psychodynamic psychotherapy vs. group psychotherapy (treatment duration 24 months).**
Summary of evidence	**Low quality evidence (imprecise, 1 RCT per comparison) is unclear as to any benefit of individual psychodynamic psychotherapy compared to group therapy.**
Mental state	
No significant difference between groups in rates of rehospitalisation;	

At 12 months: 1 RCT, N = 100, RR = 1.07, 95%CI 0.58 to 1.98, *p* = 0.83 At 24 months: 1 RCT, N = 100, RR = 1.16, 95%CI 0.72 to 1.86, *p* = 0.54 *No significant difference between groups in the number of participants who showed no clinical improvement by 24 months;* 1 RCT, N = 100, RR = 1.27, 95%CI 0.96 to 1.67, *p* = 0.092 *No significant difference in the number of participants who were discharged from treatment;* By 12 months: 1 RCT, N = 100, RR = 0.75, 95%CI 0.18 to 3.18, *p* = 0.70 By 24 months: 1 RCT, N = 100, RR = 0.60, 95%CI 0.33 to 1.09, *p* = 0.095 *No significant difference in the number of patients who remained in therapy;* By 12 months: 1 RCT, N = 100, RR = 0.68, 95%CI 0.46 to 1.00, *p* = 0.051 By 24 months: 1 RCT, N = 100, RR = 0.56, 95%CI 0.20 to 1.54, *p* = 0.26	
Consistency in results	Not applicable – all outcomes are 1 RCT.
Precision in results	Precise
Directness of results	Direct

Explanation of acronyms

BPRS = Brief Psychiatric Rating Scale, CI = Confidence Interval, N = number of participants, *p* = statistical probability of obtaining that result ($p < 0.05$ generally regarded as significant), RCT = randomised controlled trial, RR = relative risk, vs = versus

Explanation of technical terms

* Bias has the potential to affect reviews of both RCT and observational studies. Forms of bias include; reporting bias – selective reporting of results; publication bias - trials that are not formally published tend to show less effect than published trials, further if there are statistically significant differences between groups in a trial, these trial results tend to get published before those of trials without significant differences; language bias – only including English language reports; funding bias - source of funding for the primary research with selective reporting of results within primary studies; outcome variable selection bias; database bias - including reports from some databases and not others; citation bias - preferential citation of authors. Trials can also be subject to bias when evaluators are not blind to treatment condition and selection bias of participants if trial samples are small[5].

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† Different effect measures are reported by different reviews.

Prevalence refers to how many existing cases there are at a particular point in time. Incidence refers to how many new cases there are per population in a specified time period. Incidence is usually reported as the number of new cases per 100,000 people per year. Alternatively some studies present the number of new cases that have accumulated over several years against a person-years denominator. This denominator is the sum of individual units of time that the persons in the population are at risk of becoming a case. It takes into account the size of the underlying population sample and its age structure over the duration of observation.

Reliability and validity refers to how accurate the instrument is. Sensitivity is the proportion of actual positives that are correctly identified (100% sensitivity = correct identification of all actual positives) and specificity is the proportion of negatives that are correctly identified (100% specificity = not identifying anyone as positive if they are truly not).

Weighted mean difference scores refer to mean differences between treatment and comparison groups after treatment (or occasionally pre to post treatment) and in a randomised trial there is an assumption that both groups are comparable on this measure prior to treatment. Standardised mean differences are divided by the pooled standard deviation (or the standard deviation of one group when groups are homogenous), which allows results from different scales to be combined and compared. Each study's mean difference is then given a weighting depending on the size of the sample and the variability in the data. Less than 0.4 represents a small effect, around 0.5 a medium effect, and over 0.8 represents a large effect[5].

Odds ratio (OR) or relative risk (RR) refers to the probability of a reduction (< 1) or an increase (> 1) in a particular outcome in a treatment group, or a group exposed to a risk factor, relative to the comparison group. For example, a RR of 0.75 translates to a reduction in risk of an outcome of 25% relative to those not receiving the treatment or not exposed to the risk factor. Conversely, a RR of 1.25 translates to an increased risk of 25% relative to those not receiving treatment or not having been exposed to a risk factor. A RR or OR of 1.00 means there is no difference between groups. A medium effect is considered if RR > 2 or < 0.5 and a large effect if RR > 5 or < 0.2[6]. lnOR stands for logarithmic OR where a lnOR of 0 shows no difference between groups. Hazard ratios

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measure the effect of an explanatory variable on the hazard or risk of an event.

Correlation coefficients (eg, r) indicate the strength of association or relationship between variables. They can provide an indirect indication of prediction, but do not confirm causality due to possible and often unforseen confounding variables. An r of 0.10 represents a weak association, 0.25 a medium association and 0.40 and over represents a strong association. Unstandardised (*b*) regression coefficients indicate the average change in the dependent variable associated with a 1 unit change in the independent variable, statistically controlling for the other independent variables. Standardised regression coefficients represent the change being in units of standard deviations to allow comparison across different scales.

‡ Inconsistency refers to differing estimates of effect across studies (i.e. heterogeneity or variability in results) that is not explained by subgroup analyses and therefore reduces confidence in the effect estimate. I^2 is the percentage of the variability in effect estimates that is due to heterogeneity rather than sampling error (chance) - 0% to 40%: heterogeneity might not be important, 30% to 60%: may represent moderate heterogeneity, 50% to 90%: may represent considerable heterogeneity and over this is considerable heterogeneity. I^2 can be calculated from Q (chi-square) for the test of heterogeneity with the following formula[5];

$$I^2 = \left(\frac{Q - df}{Q}\right) \times 100\%$$

§ Imprecision refers to wide confidence intervals indicating a lack of confidence in the effect estimate. Based on GRADE recommendations, a result for continuous data (standardised mean differences, not weighted mean differences) is considered imprecise if the upper or lower confidence limit crosses an effect size of 0.5 in either direction, and for binary and correlation data, an effect size of 0.25. GRADE also recommends downgrading the evidence when sample size is smaller than 300 (for binary data) and 400 (for continuous data), although for some topics, these criteria should be relaxed[7].

‖ Indirectness of comparison occurs when a comparison of intervention A versus B is not available but A was compared with C and B was compared with C that allows indirect comparisons of the magnitude of effect of A versus B. Indirectness of population, comparator and/or outcome can also occur when the available evidence regarding a particular population, intervention, comparator, or outcome is not available and is therefore inferred from available evidence. These inferred treatment effect sizes are of lower quality than those gained from head-to-head comparisons of A and B.

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