Influence of social support on success of therapeutic interventions: a meta-analytic review
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CRD summary
The authors concluded there is a small correlation between social support and the success of psychotherapeutic interventions that was not mediated by the form of psychotherapy or the operationalisation of social support. Overall, given the wide range of different studies included in the review, and the risk of publication and language bias, the authors' conclusions should be interpreted with caution.

Authors' objectives
To evaluate the influence of social support on psychotherapeutic interventions.

Searching
PsycINFO and PSYNDEX were searched up to 2007 for articles published in German or English. Search terms were reported. Unpublished articles were excluded. The references of retrieved articles and two handbooks of therapy outcomes were also searched.

Study selection
Controlled studies of clinical psychology interventions reporting on correlations between social support, or social networks, and therapeutic outcomes were eligible for inclusion. Studies were required to have a minimum of ten participants and sufficient data to enable a calculation of the effect size.

Included studies were of behavioural and non-behavioural psychological interventions, with six to 34 sessions (mean 19.8 sessions), delivered mainly in an outpatient setting. The details of therapeutic interventions were not provided for the individual studies. Participants in the included studies were adults and children from clinical and non-clinical at-risk (e.g. sexually abused boys, patients with chronic kidney failure) populations. The majority of participants were diagnosed with alcohol or drug abuse and dependency, or mood disorders. A wide-range of subjective and objective social support characteristics were measured, such as perceived social support, social support seeking, family environment, size of social network and satisfaction with social support. A range of therapeutic outcomes were reported covering clinical symptoms, substance abuse behaviour, coping with illness, social adjustment, and therapeutic factors.

The authors did not state how the studies were selected for the review, or how many reviewers performed the study selection.

Assessment of study quality
The methodological quality of included studies was assessed according to: randomisation; sample size of at least 30 participants; description of sample and treatment; reliability of measurement tools; control of drop out effects; consideration of treatment and mediating variables and appropriateness of analysis. The maximum score was 12.

Validity was assessed independently by two reviewers and analysis showed high levels of reliability between raters.

Data extraction
Data were extracted to enable the calculation of effect sizes using the methods of Hunter et al (1982) and Hedges and Olkin (1985). Where more than one outcome measure was reported for a study, they were averaged to give an overall effect size.

Data were independently extracted by two reviewers.

Methods of synthesis
Pooled correlation coefficients were calculated for the overall effect of social support on therapy outcome. Heterogeneity was assessed using three different statistical tests; $\chi^2$, the variance of the observed correlations accounted for by sampling error, and the absolute amount of residual variance. The fail safe N was calculated. A stepwise linear regression analysis was carried with the operationalisation of social support and the form of psychotherapy entered as variables.

Results of the review
Thirty-six studies were included for the review (n=6,211 participants). Twenty seven studies (n=4,571 participants) were included in the meta-analysis. Nine studes (n=1,640 participants) were presented in tables and discussed in a brief narrative synthesis. The design of the studies was not reported.

In the individual studies the effect sizes for psychotherapeutic outcomes ranged from 0.02 to 0.49. Overall, there was no correlation between social support and psychotherapeutic outcomes ($r=0.13$, 95% confidence interval (CI): 0.06 to 0.19; $p<0.16$. 27 studies, n=4,571 participants). The findings for heterogeneity were mixed ($\chi^2=33.84$, variance accounted for by sample error was 81.77% and residual standard deviation was 0.03359). The fail safe N was 44.52. Of the nine studies that did not report sufficient data to enable inclusion in the meta-analysis, four showed a positive association between social support and psychotherapeutic outcomes, two reported mixed findings, and three reported no significant association.

There was a weak positive correlation between objective measures of social support and psychotherapeutic outcomes ($r=0.11$, 95% CI: 0.01 to 0.22; $p<0.02$, five studies, n= 2,145, $\chi^2=11.39$) and between social support and psychotherapeutic outcomes in participants treated with non-behavioural psychotherapy ($r=0.13$, 95% CI: 0.10 to 0.16; $p<0.04$; number of studies not reported, $\chi^2=30.80$). However, there was evidence of significant heterogeneity for both these outcomes. There was no correlation between social support and therapeutic outcomes when only subjective measures of social support were analysed or when only participants treated with behavioural therapies were analysed.

Authors’ conclusions
There is a small correlation between social support and psychotherapy outcome that was not mediated by the form of psychotherapy or the operationalisation of social support.

CRD commentary
The review addressed a clear question. Inclusion criteria were broad for intervention, outcomes and participants. Inclusion criteria were stated for study design. The details of included study designs were not provided, so it was unclear to what extent the inclusion criteria were applied. Only two databases were searched, so there is a possibility that some data may have been missed. Language restrictions were applied and unpublished articles were excluded, so language and publication bias may exist. The validity assessment and data extraction were conducted independently and in duplicate. However, it was unclear whether similar steps were taken in the study selection process, so the possibility of reviewer error and bias cannot be ruled out. There was limited information about the details of the included studies. There were high levels of clinical heterogeneity between studies in terms of participants, outcomes and interventions, so the studies may have been better treated through a narrative synthesis. Overall, given the wide range of different studies included in the review, and the risk of publication and language bias, the authors’ conclusions should be interpreted with caution.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors stated that further research is needed comparing the effect of social support on psychotherapeutic outcomes in different populations and at different times in treatment. Further research is needed on social support and psychotherapeutic outcomes in disorders not covered by the present review, and to investigate the interaction between social support and other therapeutic factors, such as the therapeutic relationship.

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