A systematic qualitative analysis of psychoeducational interventions for depression in patients with cancer

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Authors' objectives
The authors set out to determine whether research-based recommendations could be made about the clinical management of depression in cancer patients. Their stated objective was to determine whether psychoeducational interventions significantly reduce depressive symptoms.

Searching
CINAHL, MEDLINE, PsycLIT and Cancerlit were searched with terms including 'cancer/neoplasms', 'psychological depression', 'patient/client education', 'counseling', 'psychotherapy', 'cognitive therapy', 'behavioral therapy', 'relaxation', 'guided imagery' and 'support groups'. The reference lists from relevant studies and reviews were also examined. Articles published between 1980 and 2000 were included in the review.

Study selection

Study designs of evaluations included in the review
Reports of scientific studies, qualitative or quantitative systematic reviews and research-based practice guidelines were eligible for inclusion. To be included the systematic reviews had to address specific hypotheses, describe the search strategy and state clear conclusions. Practice guidelines had to be evidence-based (what that meant was not defined).

Specific interventions included in the review
Studies of psychoeducational interventions were eligible for inclusion. Initially all types of psychoeducational intervention were considered for inclusion, but some (unspecified) were later excluded because of the small number of studies available. Only studies that compared the intervention with usual care or an attentional (i.e. attention from a health care provider) control group were included. Studies of exercise or complimentary therapy were excluded. Thirty-four of the included primary research studies tested single interventions (behaviour therapy or counselling or education), while the remaining 14 tested a combination of two or more interventions. The number of sessions, where reported, ranged from one to 52.

Participants included in the review
There were no explicit inclusion criteria stated for the participants. The authors state that no information is provided in the review about the level of depression in the included studies because studies of psychosocial interventions were unlikely to rate depression levels systematically. The term depression as used in the review denotes the entire range of depressive symptoms, from normal sadness to psychiatric disorder. Most of the included studies did not stipulate the presence of depression as an inclusion criterion. Only three of the included studies recruited only people with or at risk of depression. Only one of the included studies was conducted solely among in-patients. Fifteen of the included studies were in women with breast cancer whereas four studies included only men. Most of the studies included men and women. Studies in children with cancer or spouses of patients with cancer were excluded.

Outcomes assessed in the review
Studies that measured depression as an outcome were eligible for inclusion. Depressive symptoms was the outcome selected for analysis. This could be measured on a separate scale or as part of a composite measure. Seventeen different measures of depression were used in the included studies.

How were decisions on the relevance of primary studies made?
The authors do not state how the papers were selected for the review, or how many of the reviewers performed the selection.

Assessment of study quality
The included studies were rated using the level of evidence criteria developed for the PRISM (Priority Symptom Management) project (see Other Publications of Related Interest no.1). The criteria included sample size, allocation of participants, eligibility criteria, exposure to the intervention, outcome evaluation and potential confounding factors. A score from 1 to 8 was assigned to each study (see Other Publications of Related Interest no.2). Studies that reported non significant results (the meaning of ‘non significant results’ was unclear) were not assigned a score. The authors do not state how the papers were assessed for validity, or how many of the reviewers performed the validity assessment.

Data extraction
Two advance practice nurses coded the included studies with the assistance of two student nurses. The main variables included sample size, gender, diagnosis, allocation procedure, content of the experimental procedure, number of sessions, whether group or individual therapy, type of control group, setting and outcome measures. The interventions in the included studies were categorised as counselling/psychotherapy, behaviour therapy, education/information social support or other (e.g. music therapy). The outcomes were coded according to the direction of the effect.

Methods of synthesis
How were the studies combined?
A vote counting approach was taken, i.e. how many studies supported the conclusion that psychoeducational interventions benefit depressive symptoms relative to how many were not supportive of that conclusion. It is unclear from the report exactly how this was done. The PRISM levels of evidence were assigned as follows: level I (score 1 to 3), level II (score 4 to 7), level III (score 8). The authors stated that level I evidence supported the conclusion, and that levels II and II provided additional support. Studies that reported non significant (sic) results did not have a level of evidence assigned to them, but whether this meant that they did not support the conclusion was unclear. As the scoring system was not transparent, and the results from each included study were not presented, it is not possible to decipher how the studies were designated as supportive or not supportive. Publication bias was not investigated.

How were differences between studies investigated?
The studies were grouped as quantitative or qualitative analyses. The interventions were grouped into one of four types.

Results of the review
Fifty-one quantitative studies were included. There were 36 RCTs, 7 non-randomised studies, 5 descriptive (pre- and post-test) studies and 3 meta-analyses. The size of the RCTs ranged from 16 to 272 participants (total 3,287). The non-randomised studies included 869 participants overall (18 to 217 participants per study). The pre- and post-test studies included from 10 to 556 participants (total 730). Four qualitative studies (3 systematic reviews and one treatment guideline) were also included.

Quantitative studies.

Three published meta-analyses used different inclusion criteria and reached different conclusions. The two that showed a benefit were rated as level I and level II evidence, respectively. The third had non significant results.

Thirty of the 48 primary studies provided evidence (level I or II) in support of psychoeducational interventions. Among 17 studies of behaviour therapy alone, four were designated level I, seven level II and six had non significant results. Among 10 studies of counselling alone, four were level I, three level II and three had non significant results. Among seven studies of education only, two were level I, two level II and three had non significant results. Among 8 studies of counselling/education, one was level I, five level II and two had non significant results. Among 4 studies of behaviour therapy/education, one was level II and three had non significant results.

Qualitative studies. The three systematic reviews concluded that psychoeducational interventions benefit depression (all level I evidence). The treatment guideline recommended counselling psychotherapy in combination with pharmacological treatment for cancer patients with major depression.
Authors' conclusions
The evidence supports the conclusion that psychoeducational interventions reduce depressive symptoms in patients with cancer. Behaviour therapy or counselling alone or in combination with cancer education is beneficial.

CRD commentary
This review addressed a very broad question without stating clear inclusion criteria. In what is claimed to be a systematic review about treatment for depression, the authors' reasons for including studies that did not have depression as an inclusion criterion, for including any condition from normal sadness to psychiatric disorder, and for not giving details of the definition used in the included studies, are unconvincing. A broad range of interventions was included that, although grouped by type, varied considerably between the studies. Some interventions were excluded because there were too few studies, which is not a valid reason. If an intervention is relevant it is important to show where the evidence is sparse. Inclusion was restricted by the control used in the studies, but there were no details of what attention or usual care consisted of in those studies. No information on how the chosen outcome was defined in the included studies was given. These features do not provide assurance that the selection process was objective. They also render meaningful interpretation of the reviews' findings practically impossible.

A number of appropriate databases and search terms were used to identify relevant studies. Language limitation was not mentioned and unpublished data were not sought. There were no details of how the studies were selected. There was also no indication of the degree of overlap between the included meta-analyses and primary studies. The validity of the methods used to assign levels of evidence and to designate studies as supportive or not supportive is uncertain. Synthesis of evidence by tallying 'positive' versus 'negative' studies (vote counting) has serious limitations. The reasons why some studies showed an effect while others did not was not adequately investigated. The information on the characteristics of the individual studies was insufficient for readers to judge for themselves. The authors' conclusion that psychoeducational interventions, and specific types of interventions, reduce depressive symptoms should not be relied upon. The authors' suggestions for practice (see below) presumably reflect the guidelines of the U.S. National Comprehensive Cancer Network (NCCN) since they are not implicit from their own review.

Implications of the review for practice and research
Practice: The authors state that their findings are congruent with the recommendations of the NCCN (see Other Publications of Related Interest no.3).

Research: The authors state that future research studies on depression should be adequately powered to detect a real difference and control for physical symptoms and medical treatment variables. Also, future RCTs should consider the following: recruitment of patients in whom the presence of depression is known; behaviour therapy versus counselling psychotherapy; dose-response relationships; and comparators that control for time and attention from health care providers.

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Other publications of related interest

This additional published commentary may also be of interest. Pasacreta JV. Review: psychoeducational interventions reduce depressive symptoms in cancer. Evid Based Nurs 2002;5:113.

**Indexing Status**
Subject indexing assigned by NLM

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