

novel and realistic quality assessment systems may be needed for studies focusing on patients with advanced cancer.

POTENTIAL CONFLICT OF INTEREST

None known.

ACKNOWLEDGEMENTS

This systematic review was conducted within the framework of the Cochrane Pain, Palliative and Supportive Care Review Group, and we acknowledge their help and support. This study was supported in part by a Grant-in-Aid from the Cancer Research and Second-Term Comprehensive Ten-Year Strategy for Cancer Control from the Ministry of Labour, Health and Welfare of Japan.

SOURCES OF SUPPORT

External sources of support

- Japanese Ministry of Health, Labor and Welfare JAPAN

Internal sources of support

- Nagoya City University Medical School JAPAN

REFERENCES

References to studies included in this review

Classen 2001 *(published data only)*

Classen C, Butler LD, Koopman C, Miller E, DiMiceli S, Giese-Davis J, et al. Supportive-expressive group therapy and distress in patients with metastatic breast cancer: a randomized clinical intervention trial. *Archives of General Psychiatry* 2001;58(5):494-501.

Edelman 1999 *(published data only)*

Edelman S, Bell DR, Kidman AD. A group cognitive behaviour therapy programme with metastatic breast cancer patients. *Psychooncology* 1999;8(4):295-305.

Goodwin 2001 *(published data only)*

Goodwin PJ, Leszcz M, Ennis M, Koopmans J, Vincent L, Guther H, et al. The effect of group psychosocial support on survival in metastatic breast cancer. *New England Journal of Medicine* 2001;345(24):1719-26.

Laidlaw 2005 *(published data only)*

Laidlaw T, Bennett BM, Dwivedi P, Naito A, Gruzeliier J. Quality of life and mood changes in metastatic breast cancer after training in self-hypnosis or johrei: a short report. *Contemporary Hypnosis* 2005; 22(2):84-93.

Linn 1982 *(published data only)*

Linn MW, Linn BS, Harris R. Effects of counseling for late stage cancer patients. *Cancer* 1982;49(5):1048-55.

Lioisi 2001 *(published data only)*

Lioisi C, White P. Efficacy of clinical hypnosis in the enhancement of quality of life of terminally ill cancer patients. *Contemporary Hypnosis* 2001;18(3):145-60.

Sloman 2002 *(published data only)*

Sloman R. Relaxation and imagery for anxiety and depression control in community patients with advanced cancer. *Cancer Nursing* 2002; 25(6):432-5.

Spiegel 1981 *(published data only)*

Spiegel D, Bloom JR, Yalom I. Group support for patients with metastatic cancer. A randomized outcome study. *Archives of General Psychiatry* 1981;38(5):527-33.

Wood 1997 *(published data only)*

Wood BC, Mynors-Wallis LM. Problem-solving therapy in palliative care. *Palliative Medicine* 1997;11(1):49-54.

Wu 2003 *(published data only)*

Wu L, Wang S. Psychotherapy improving depression and anxiety of patients treated with chemotherapy combined with radiotherapy. *Chinese Journal of Clinical Rehabilitation* 2003;7(17):2462-3.

References to studies excluded from this review

Edmonds 1999

Edmonds CV, Lockwood GA, Cunningham AJ. Psychological response to long-term group therapy: a randomized trial with metastatic breast cancer patients. *Psychooncology* 1999;8(1):74-91.

Giasson 1998

Giasson M, Bouchard L. Effect of therapeutic touch on the well-being of persons with terminal cancer. *Journal of Holistic Nursing* 1998;16(3):383-98.

Mantovani 1996

Mantovani G, Astara G, Lampis B, Bianchi A, Curreli L, Orru W, et al. Evaluation by multidimensional instruments of health-related quality of life of elderly cancer patients undergoing three different "psychosocial" treatment approaches. A randomized clinical trial. *Supportive Care in Cancer* 1996;4(2):129-40.

North 1992

North N, Cornbleet MA, Knowles G, Leonard RC. Information giving in oncology: a preliminary study of tape-recorder use. *British Journal of Clinical Psychology* 1992;31(Pt 3):357-9.

Sarna 1998

Sarna L. Effectiveness of structured nursing assessment of symptom distress in advanced lung cancer. *Oncology Nursing Forum* 1998;25(6):1041-8.

Schofield 2003

Schofield P, Payne S. A pilot study into the use of a multisensory environment (Snoezelen) within a palliative day-care setting. *International Journal of Palliative Nursing* 2003;9(3):124-30.

Soden 2004

Soden K, Vincent K, Craske S, Lucas C, Ashley S. A randomized controlled trial of aromatherapy massage in a hospice setting. *Palliative Medicine* 2004;18(2):87-92.

Additional references

Akechi 2001

Akechi T, Okamura H, Nishiwaki Y, Uchitomi Y. Psychiatric disorders and associated and predictive factors in patients with unresectable non-small cell lung carcinoma: a longitudinal study. *Cancer* 2001;92(10):2609-22.

Alderson 2004

Alderson P, Green S, Higgins JPT. *Cochrane Reviewers' Handbook* 4.2.2. Chichester, UK: Wiley-Blackwell, 2004.

Banerjee 2006

Banerjee S, Wells G. Caveats in the meta-analysis of continuous data: a simulation study. XIVth Cochrane Colloquium, 2006.

Bech 2000

Bech P, Cialdella P, Haugh MC, Birkett MA, Hours A, Boissel JP, et al. Meta-analysis of randomised controlled trials of fluoxetine versus placebo and tricyclic antidepressants in the short-term treatment of major depression. *British Journal of Psychiatry* 2000;176:421-8.

Block 2000

Block SD. Assessing and managing depression in the terminally ill patient. ACP-ASIM End-of-Life Care Consensus Panel. American College of Physicians - American Society of Internal Medicine. *Annals of Internal Medicine* 2000;132(3):209-18.

Bukberg 1984

Bukberg J, Penman D, Holland JC. Depression in hospitalized cancer patients. *Psychosomatic Medicine* 1984;46(3):199-212.

Cassileth 1985

Cassileth BR, Lusk EJ, Strouse TB, Miller DS, Brown LL, Cross PA. A psychological analysis of cancer patients and their next-of-kin. *Cancer* 1985;55(1):72-6.

Chan 2005

Chan AW, Altman DG. Epidemiology and reporting of randomised trials published in PubMed journals. *Lancet* 2005;365:1159-62.

Colleoni 2000

Colleoni M, Mandala M, Peruzzotti G, Robertson C, Bredart A, Goldhirsch A. Depression and degree of acceptance of adjuvant cytotoxic drugs. *Lancet* 2000;356(9238):1326-7.

Derogatis 1983

Derogatis LR, Morrow GR, Fetting J, Penman D, Pisetsky S, Schmale AM, et al. The prevalence of psychiatric disorders among cancer patients. *Journal of American Medical Association* 1983;249(6):751-7.

Devine 1995

Devine EC, Westlake SK. The effects of psychoeducational care provided to adults with cancer: meta-analysis of 116 studies. *Oncology Nursing Forum* 1995;22(9):1369-81.

Furukawa 2002

Furukawa TA, Guyatt GH, Griffith LE. Can we individualize the 'number needed to treat'? An empirical study of summary effect measures in meta-analyses. *International Journal of Epidemiology* 2002;31(1):72-6.

Furukawa 2006

Furukawa TA, Barbui C, Cipriani A, Brambilla P, Watanabe N. Imputing missing standard deviations in meta-analyses can provide accurate results. *Journal of Clinical Epidemiology* 2006;59:7-10.

Furukawa 2007

Furukawa TA, Watanabe N, Omori I, Montori VM, Guyatt G. Association between unreported outcomes and effect size estimates in Cochrane meta-analyses. *Journal of American Medical Association* 2007;297:468-70.

Grassi 1996

Grassi L, Indelli M, Marzola M, Maestri A, Santini A, Piva E, et al. Depressive symptoms and quality of life in home-care-assisted cancer patients. *Journal of Pain and Symptom Management* 1996;12(5):300-7.

Henriksson 1995

Henriksson MM, Isometsa ET, Hietanen PS, Aro HM, Lonnqvist JK. Mental disorders in cancer suicides. *Journal of Affective Disorders* 1995;36(1-2):11-20.

Kugaya 2000

Kugaya A, Akechi T, Okuyama T, Nakano T, Mikami I, Okamura H, et al. Prevalence, predictive factors, and screening for psychologic distress in patients with newly diagnosed head and neck cancer. *Cancer* 2000;88(12):2817-23.

MaNair 1992

McNair DM, Lorr M, Droppleman LF. *Edits manual for the Profile of Mood States*. San Diego: Edits/Educational and Industrial Testing Service, 1992.

- McDaniel 1995**
McDaniel JS, Musselman DL, Porter MR, Reed DA, Nemeroff CB. Depression in patients with cancer. Diagnosis, biology, and treatment. *Archives of General Psychiatry* 1995;52(2):89-99.
- Newell 2002**
Newell SA, Sanson-Fisher RW, Savolainen NJ. Systematic review of psychological therapies for cancer patients: overview and recommendations for future research. *Journal of the National Cancer Institute* 2002;94(8):558-84.
- Okamura 2000**
Okamura H, Watanabe T, Narabayashi M, Katsumata N, Ando M, Adachi I, et al. Psychological distress following first recurrence of disease in patients with breast cancer: prevalence and risk factors. *Breast Cancer Research and Treatment* 2000;61(2):131-7.
- Okuyama 2007**
Okuyama T, Nakane Y, Endo C, Seto T, Kato M, Seki N, et al. Mental health literacy in Japanese cancer patients: ability to recognize depression and preferences of treatments-comparison with Japanese lay public. *Psychooncology* 2007;16(9):834-42.
- Oxman 1992**
Oxman AD, Guyatt GH. A consumer's guide to subgroup analyses. *Annals of Internal Medicine* 1992;116(1):78-84.
- Penrod 2004**
Penrod JD, Morrison RS. Challenges for palliative care research. *Journal of Palliative Medicine* 2004;7:398-402.
- Prieto 2002**
Prieto JM, Blanch J, Atala J, Carreras E, Rovira M, Cirera E, et al. Psychiatric morbidity and impact on hospital length of stay among hematologic cancer patients receiving stem-cell transplantation. *Journal of Clinical Oncology* 2002;20(7):1907-17.
- Ross 2002**
Ross L, Boesen EH, Dalton SO, Johansen C. Mind and cancer: does psychosocial intervention improve survival and psychological well-being? *European Journal of Cancer* 2002;38(11):1447-57.
- Sheard 1999**
Sheard T, Maguire P. The effect of psychological interventions on anxiety and depression in cancer patients: results of two meta-analyses. *British Journal of Cancer* 1999;80(11):1770-80.
- Spiegel 1978**
Spiegel D, Yalom ID. A support group for dying patients. *International Journal of Group Psychotherapy* 1978;28:233-45.
- SPSS 2003**
SPSS Japan Inc. SPSS. 11.5.1 J for Windows. Tokyo, Japan: SPSS Japan Inc, 2003.
- Williams 2006**
Williams S, Dale J. The effectiveness of treatment for depression/depressive symptoms in adults with cancer: a systematic review. *British Journal of Cancer* 2006;94:372-90.
- Yalom 1977**
Yalom ID, Greaves C. Group therapy with the terminally ill. *American Journal of Psychiatry* 1977;134:396-400.

TABLES

Characteristics of included studies

Study	Classen 2001
Methods	RCT
Participants	125 women with metastatic breast cancer; American
Interventions	Supportive-expressive group psychotherapy, including fostering support among group members and encouraging the expression of emotions, psychoeducation, and self-hypnosis exercise (90 minutes weekly session lasting at least one year)
Outcomes	Profile of Mood States, Impact of Event scale
Notes	Quality score: 10 It is reported that the group therapy did not improve depression
Allocation concealment	B - Unclear
Study	Edelman 1999
Methods	RCT
Participants	124 women with metastatic breast cancer; Australian
Interventions	Group cognitive behavior therapy (8 weekly sessions)

Characteristics of included studies (Continued)

Outcomes	Profile of Mood States, Coopersmith Self-esteem Inventory
Notes	Quality score: 7 It is reported that the therapy improved depression
Allocation concealment	B – Unclear
Study	Goodwin 2001
Methods	RCT
Participants	235 women with metastatic breast cancer; Canadian
Interventions	Supportive-expressive group psychotherapy, including fostering support among group members and encouraging the expression of emotions about cancer and its effects on their lives (90 minutes weekly session lasting at least one year)
Outcomes	Profile of Mood States, Pain scale, Suffering scale, Survival
Notes	Quality score: 17 It is reported that the group therapy improved depression
Allocation concealment	A – Adequate
Study	Laidlaw 2005
Methods	RCT
Participants	37 women with metastatic breast cancer; English
Interventions	1. Self-hypnosis, including both anti-stress and anxiety techniques and visualization techniques (four weeks) 2. Johrei, a healing technique developed in Japan, is non-touch, and requires the practitioner to visualize healing light entering the body and being transferred via the outstretched hand to the recipient with a spirit of goodwill towards the other person (four weeks)
Outcomes	Beck Depression Inventory, Profile of Mood States Bi-Polar-Form, State Trait Anxiety Inventory, Impact of Event Scale, EORTC QLQ-C30, BR23 (Assessment was conducted after at least three months of practice)
Notes	Quality score: 5 The statistical results regarding depression were not reported
Allocation concealment	B – Unclear
Study	Linn 1982
Methods	RCT
Participants	One hundred and twenty men with end-stage cancer (clinical stage IV) identified on wards of a large general hospital; American
Interventions	Counseling, including reducing denial, maintaining hope, life review, support for families (several times a week till death)
Outcomes	Profile of Mood States, life satisfaction, self-esteem, alienation, locus of control (one, three, six, nine, 12 months after the treatment)
Notes	Quality score: 13 It is reported that the therapy improved depression at three months
Allocation concealment	A – Adequate
Study	Liossi 2001
Methods	RCT
Participants	Fifty terminally ill cancer patients who were referred for palliative care; Greek

Characteristics of included studies (Continued)

Interventions	Hypnosis, including induction, suggestions for symptom management and ego-strengthening, and post hypnotic suggestions for comfort and maintenance of the therapeutic benefits (30-minutes four weekly sessions)
Outcomes	Hospital Anxiety and Depression scale, Rotterdam Symptom Checklist (four weeks after the start of the treatment)
Notes	Quality score: 9 It is reported that the therapy improved depression
Allocation concealment	B – Unclear

Study	Sloman 2002
Methods	RCT
Participants	Fifty six advanced cancer patients receiving home palliative care who were experiencing anxiety and depression; Australian
Interventions	Progressive muscle relaxation and guided imagery (twice weekly)
Outcomes	Hospital Anxiety and Depression scale, Functional Living Index-Cancer scale (three weeks after the initial session)
Notes	Quality score: 4 It is reported that significant positive changes occurred for depression
Allocation concealment	B – Unclear

Study	Spiegel 1981
Methods	RCT
Participants	Eighty six women with metastatic breast cancer; American
Interventions	Psychological support group, including fostering support among group members and encouraging the expression of emotions (90 minutes weekly session lasting at least one year)
Outcomes	Profile of Mood States, Rotter Internal/External Locus of Control Scale, Health Locus of Control Scale, Self-esteem (from the Janis-Field Scale), Maladaptive coping response, Phobias, Denial
Notes	Quality score: 9 The original study revealed "The treatment group tended (although not significantly) to be less depressed" on the basis of the findings about slopes analysis that investigated the score change per 100 days. On the other hand, because we set the outcome at the end of the study in the protocol, we recalculated the score change during 300 days. Consequently the score change has become to be statistically significant.
Allocation concealment	B – Unclear

Study	Wood 1997
Methods	RCT
Participants	Twenty cancer patients who were referred to hospice home care teams; English
Interventions	Problem-solving therapy (three to five sessions)
Outcomes	Profile of Mood States, Hospital Anxiety and Depression scale, modified Social Adjustment Scale
Notes	Quality score: 9 The statistical results regarding depression were not reported
Allocation concealment	B – Unclear

Study	Wu 2003
Methods	RCT
Participants	One hundred and twenty lung cancer patients receiving chemotherapy combined with radiotherapy; Chinese
Interventions	Supporting psychotherapy, including cognitive therapy, patient self-help group, behavioral therapy, and family education
Outcomes	Self-Rating Depression Scale, Self-Rating Anxiety Scale (one month after the start of the treatment)
Notes	Quality score: 12 It is reported that the patients of the treatment group made a significant progress in relieving the depression compared with the control group
Allocation concealment	B – Unclear

Characteristics of excluded studies

Study	Reason for exclusion
Edmonds 1999	Although the POMS-Short Form was used as a psychological measure, this questionnaire cannot assess depression
Giasson 1998	The intervention (noncontact therapeutic touch) was not considered as psychotherapy
Mantovani 1996	The study did not include the usual care in the control group
North 1992	The intervention (information giving by tape-recording the consultation) was not considered as psychotherapy
Sarna 1998	The intervention (structured nursing assessment of symptom) was not considered as psychotherapy
Schofield 2003	The intervention (use of multisensory environment [Snoezelen]) was not considered as psychotherapy
Soden 2004	The intervention (aromatherapy, including massages with lavender essential oil and an inert oil) was not considered as psychotherapy

ADDITIONAL TABLES

Table 01. Additional search strategies

Database searched	Search strategy used
PaPaS TRIALS REGISTER	((psychotherapy OR psychotherapy* OR aromatherapy* OR "art therapy" OR "autogenic training" OR "behavior" therapy* OR "behaviour" therapy* OR (biofeedback AND psycho*) OR "cognitive therapy" OR "cognitive behavioural therap*" OR (desensiti* AND psychol*) OR "implosive therapy" OR "relaxation therap*" OR "relaxation technique*" OR "therapeutic touch" OR "touch therap*" OR yoga OR bibliotherapy OR "colour therap*" OR "colour therapy" OR "music therapy" OR hypnotherapy OR (imagery AND psychotherapy*) OR counsel* OR "group therap*" OR "socioenvironmental therapy" OR "socio-environmental therapy" OR "milieu therapy" OR "therapeutic community" OR "family therap*" OR psychosoc* OR psycholog* OR "self help group*" OR "support" group*" OR "guided imagery") AND (depression OR depressive\$ OR depressed) AND (neoplasms OR tumour\$ OR tumour\$ OR cancer\$ OR carcinoma\$ OR malignant\$ OR neoplas\$)
CENTRAL	#1 PSYCHOTHERAPY (explode all trees MeSH) #2 (psychotherap* or aromatherap* or (art next therap*) or (autogenic next training) or (behavior* near therap*) or (behaviour* near therap*) or (biofeedback and psycho*) or (cognitive near therap*) or (desensiti* and psychol*) or (implosive near therap*) or (relax* near therap*) or (relax* near techniq*) or (therap* near touch*) or yoga) #3 (bibliotherapy or (color* near therap*) or (colour* near therap*) or (music* near therap*) or (hypno* near therap*) or (imagery AND psychotherap*) or counsel* or (group* NEAR therap*) or (socioenvironmental next therap*) or (socio next environmental next therap*) or (milieu next therap*) or (therapeutic communit*) or (famil* near therap*) or psychosoc* or psycholog* or self help group* or support* NEAR group* or guide* NEAR image*) #4 (#1 or #2 or #3) #5 DEPRESSION (single term MeSH) #6 (depression or depressive* or depressed) #7 (#5 or #6) #8 NEOPLASMS (explode all trees MeSH) #9 (tumour* or tumour* or cancer* or carcinoma* or malignant* or neoplas*) #10 (#8 or #9) #11 (#4 and #7 and #10)
EMBASE via Embase.Com	((psychotherapy/exp AND [embase/lim] OR (psychotherap* OR aromatherap* OR 'art therapy' OR 'autogenic training' OR 'behavior' therapy' OR 'behavioural therapy' OR (biofeedback AND psycho*) OR 'cognitive therapy' OR 'cognitive behavioural therapy' OR 'cognitive behavioural therapies' OR (desensiti* AND psychol*) OR 'implosive therapy' OR 'relaxation therapy' OR 'relaxation therapies' OR 'relaxation techniques' OR 'relaxation techniques' OR 'therapeutic touch' OR 'touch therapy' OR 'touch therapies' OR 'yoga') AND [embase/lim] AND [embase/lim]) OR (bibliotherapy OR 'color therapy' OR 'colour therapy' OR 'color therapies' OR 'colour therapies' OR 'music therapy' OR 'hypnotherapy' AND imagery AND psychotherap* OR counsel* OR 'group therapy' OR 'group therapies' OR 'socioenvironmental therapy' OR 'socio environmental therapy' OR 'milieu therapy' OR 'therapeutic community' OR 'family therapy' OR 'family therapies' OR 'psychosoc*' OR 'psycholog*' OR 'self help group*' OR 'self help groups' OR 'support group' OR 'supportive group' OR 'supportive groups' OR 'guided imagery' AND [embase/lim]) AND ((depression OR depressive* OR depressed AND [embase/lim] OR ('depression/exp AND [embase/lim]) AND (('neoplasmi'/exp AND [embase/lim] OR (tumour* OR tumour* OR cancer* OR carcinoma* OR malignant* OR neoplas*))

Table 01. Additional search strategies (Continued)

Database searched	Search strategy used
	<p>AND [embase/lim])</p> <p>The above subject search was linked to the following filter for EMBASE via EMBASE.com</p> <p>((random* :ti,ab) OR (factorial* :ab,ti) OR (crossover* :ab,ti) OR (cross over* :ab,ti) OR (placebo* :ab,ti) OR (double blind* OR (double blind) OR (single blind* :ab,ti) OR (single blind* :ab,ti) OR (assign* :ti,ab OR allocat* :ti,ab) OR (volunteer* :ab,ti) OR (randomized controlled trial*/exp AND [embase/lim]) OR (single blind procedure*/exp AND [embase/lim]) OR (double blind procedure*/exp AND [embase/lim]) OR (crossover procedure*/exp AND [embase/lim]) NOT ((animal/ OR nonhuman/ OR 'animal'/de AND experiment/ AND [embase/lim]) NOT ((human/ AND [embase/lim]) AND (animal/ OR nonhuman/ OR 'animal'/de AND experiment/ AND [embase/lim]) AND [embase/lim]) AND [embase/lim])</p>
CINAHL via OVID	<p>(Search Strategy as for MEDLINE but run with the following filter for Controlled Trials in CINAHL)</p> <ol style="list-style-type: none"> 1. Random Assignments/ 2. single-blind studies/ 3. Double-Blind Studies/ 4. Triple-Blind Studies/ 5. Crossover Design/ 6. Factorial Design/ 7. (multicentre study or multicenter study or multi-centre study or multi-center study).mp. [mp=title, cinahl subject headings, abstract, instrumentation] 8. random\$.ti,ab. 9. latin square.ti,ab. 10. cross-over.mp. or crossover.ti,ab. [mp=title, cinahl subject headings, abstract, instrumentation] 11. Placebo/ 12. ((singl\$ or doubl\$ or treb\$ or tripl\$) adj25 (blind\$ or mask\$)).ti,ab. 13. placebo\$.mp. [mp=title, cinahl subject headings, abstract, instrumentation] 14. Clinical Trials/ 15. (clin\$ adj25 trial\$).mp. [mp=title, cinahl subject headings, abstract, instrumentation] 16. or/1-15
PubMed Cancer Subject	<p>#1 PSYCHOTHERAPY (MeSH)</p> <p>#2 (psychotherap* or aromatherap* or (art AND therap*) or (autogenic AND training) or (behavior* AND therap*) or (behaviour* AND therap*) or (biofeedback and psycho*) or (cognitive AND therap*) or (desensiti* and psychol*) or (implosive AND therap*) or (relax* AND therap*) or (relax* AND techniq*) or (therap* AND touch*) or yoga)</p> <p>#3 (bibliotherapy or (color* AND therap*) or (colour* AND therap*) or (music* AND therap*) or (hypno* AND therap*) or (imagery and psychotherap*) or counsel* or (group* AND therap*) or (socioenvironmental AND therap*) or (socio-environmental AND therap*) or (milieu AND therap*) or (therapeutic AND communit*) or (famil* AND therap*) or psychosoc* or psycholog* or (self AND help AND group*) or (support* AND group*) or (guide* AND image*)</p> <p>#4 #1 OR #2 OR #3</p>

Table 01. Additional search strategies (Continued)

Database searched	Search strategy used
	#5 DEPRESSION (MeSH) #6 depression or depressive* or depressed #7 #5 OR #6 #8 NEOPLASMS (explode MeSH) #9 tumor* or tumour* or cancer* or carcinoma* or malignant* or neoplas* #10 #8 OR #9 #11 #4 AND #7 AND #10 All Fields, Limits: Cancer
	The above search strategy was linked to the following Cochrane filter for PubMed: (randomized controlled trial [pt] OR controlled clinical trial [pt] OR randomized controlled trials [mh] OR random allocation [mh] or double-blind method [mh] or single-blind method [mh] or clinical trial [pt] or clinical trials [mh] or ("clinical trial" [tw] or ((singl* [tw] or doubl* [tw] or trebl* [tw] or tripl* [tw]) AND (mask* [tw] OR blind* [tw])) OR (placebo [mh] OR placebo* [tw] OR random* [tw] OR random* [tw] OR research design [mh];noexp)) NOT (animals [mh] NOT human [mh])
PsychINFO via OVID	1. exp PSYCHOTHERAPY/ 2. (psychotherap\$ or aromatherap\$ or "art therap\$" or "autogenic training" or "behavior\$ therap\$" or (behaviour\$ therap\$) or (biofeedback and psycho\$) or (cognitive adj6 therap\$) or (desensiti\$ and psychol\$) or "implosive therap\$" or (relax\$ adj6 therap\$) or (relax\$ adj6 techniq\$) or (therap\$ adj6 touch\$) or yoga) 3. (bibliotherapy or (color\$ adj6 therap\$) or (colour\$ adj6 therap\$) or (music\$ adj6 therap\$) or (hypno\$ adj6 therap\$) or (imagery and psychotherap\$) or counsel\$ or (group\$ adj6 therap\$) or "socioenvironmental therap\$" or "socio environmental therap\$" or "milieu therap\$" or "therapeutic communiti\$" or (famil\$ adj6 therap\$) or psychosoc\$ or psycholog\$ or "self help group\$" or (support\$ adj6 group\$) or (guide\$ adj6 image\$)) 4. or/1-3 5. exp RECURRENT DEPRESSION/ or exp REACTIVE DEPRESSION/ or exp TREATMENT RESISTANT DEPRESSION/ or exp "DEPRESSION (EMOTION)"/ or exp MAJOR DEPRESSION/ 6. (depression or depressive\$ or depressed) 7. or/5-6 8. exp NEOPLASMS/ 9. (tumor\$ or tumour\$ or cancer\$ or carcinoma\$ or malignan\$ or neoplas\$) 10. or/8-9 11. 4 and 7 and 10 The above subject search strategy was run with the following filter: CCT/RCT Filter for Embase (SRB revised) 1. ((randomi\$ or (control\$ adj3 trial\$)).mp. [mp=title, abstract, subject headings, table of contents, key concepts] 2. ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).mp. [mp=title, abstract, subject headings, table of contents, key concepts] 3. placebo\$.mp. [mp=title, abstract, subject headings, table of contents, key concepts] 4. exp PLACEBO/

Table 01. Additional search strategies (Continued)

Database searched	Search strategy used
	5. crosoveret.mp.
	6. exp Treatment Effectiveness Evaluation/
	7. or/1-6
LILACS via www.bireme.br	((psychotherapy OR psychotherap\$ OR aromatherap\$ OR art AND therapy) OR (autogenic AND training) OR (behavior\$ AND therapy) OR (behaviour\$ AND therapy) OR (biofeedback AND psycho\$) OR (cognitive AND therapy) OR (cognitive AND behavioural AND therapy) OR (cognitive AND behavioural AND therapies) OR (desensiti\$ AND psychol\$) OR (implosive AND therapy) OR (relaxation AND therapy) OR (relaxation AND techniques) OR (therapeutic AND touch) OR (touch AND therapy) OR (touch AND therapies) OR yoga OR bibliotherapy OR (color AND therapy) OR (color AND therapies) OR (colour AND therapies) OR (music AND therapy) OR (relaxation AND techniques) OR (imagery AND psychotherap\$) OR counse\$ OR (group AND therapy) OR (group AND therapies) OR (socioenvironmental AND therapy) OR (socio-environmental AND therapy) OR (milieu AND therapy) OR (therapeutic AND community) OR (family AND therapy) OR (family AND therapies) OR psychosoc\$ OR psycholog\$ OR (self AND help AND group) OR (self AND help AND groups) OR (support AND group) OR (supportive AND groups) OR (supportive AND groups) OR (guided AND imagery)) AND (depression OR depressive\$ OR depressed OR depression) AND (neoplasms OR tumour\$ OR tumour\$ OR cancer\$ OR carcinoma\$ OR malignant\$ OR neoplas\$)

ANALYSES

Comparison 01. Psychotherapy versus treatment as usual

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Depression	6	517	Standardised Mean Difference (Random) 95% CI	-0.44 [-0.80, -0.08]
02 Anxiety	5	411	Standardised Mean Difference (Random) 95% CI	-0.68 [-1.37, 0.01]
03 Total Mood Disturbance	4	403	Standardised Mean Difference (Random) 95% CI	-0.94 [-1.87, -0.01]

Comparison 02. Subgroup analyses

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Depression	4	403	Standardised Mean Difference (Random) 95% CI	-0.58 [-1.02, -0.13]
02 Anxiety	4	403	Standardised Mean Difference (Random) 95% CI	-0.77 [-1.52, -0.01]
03 Total Mood Disturbance	4	403	Standardised Mean Difference (Random) 95% CI	-0.94 [-1.87, -0.01]

Comparison 03. Sensitivity analyses

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Depression	2	253	Standardised Mean Difference (Random) 95% CI	-0.35 [-0.65, -0.06]

COVER SHEET

Title	Psychotherapy for depression among incurable cancer patients
Authors	Akechi T, Okuyama T, Onishi J, Morita T, Furukawa TA
Contribution of author(s)	T Akechi, J Onishi, T Morita, and TA Furukawa: conceptualized and designed the study. T Akechi, T Okuyama, and J Onishi: conducted the systematic review. T Akechi: conducted the statistical analysis of the study. TA Furukawa: supervised the process of the systematic review. All authors: interpreted the data and wrote the report.
Issue protocol first published	2005/4
Review first published	2008/2
Date of most recent amendment	12 February 2008
Date of most recent SUBSTANTIVE amendment	11 February 2008
What's New	Information not supplied by author
Date new studies sought but none found	Information not supplied by author

Date new studies found but not yet included/excluded	Information not supplied by author
Date new studies found and included/excluded	Information not supplied by author
Date authors' conclusions section amended	Information not supplied by author
Contact address	Dr Tatsuo Akechi Associate Professor Department of Psychiatry Nagoya City University Medical School Mizuho-cho, Mizuho-ku Nagoya Aichi 467 8601 JAPAN E-mail: takechi@med.nagoya-cu.ac.jp Tel: +81 52 853 8271 Fax: +81 52 852 0837
DOI	10.1002/14651858.CD005537.pub2
Cochrane Library number	CD005537
Editorial group	Cochrane Pain, Palliative and Supportive Care Group
Editorial group code	HM-SYMPT

GRAPHS AND OTHER TABLES

Figure 01. Funnel plot for the outcome depression

Review: Psychotherapy for depression among incurable cancer patients
Comparison: 01 Psychotherapy versus treatment as usual
Outcome: 01 Depression

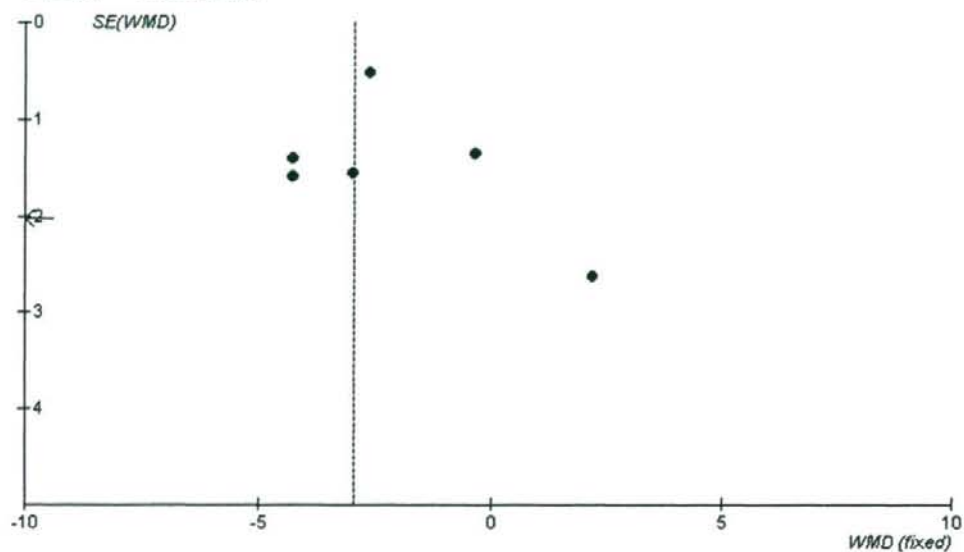


Figure 02. Funnel plot for the outcome anxiety

Review: Psychotherapy for depression among incurable cancer patients
Comparison: 01 Psychotherapy versus treatment as usual
Outcome: 02 Anxiety

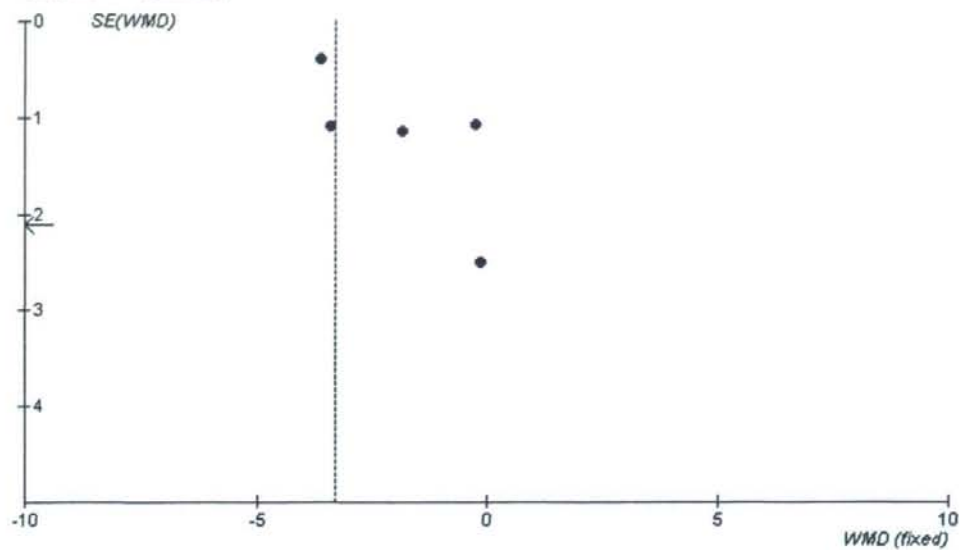
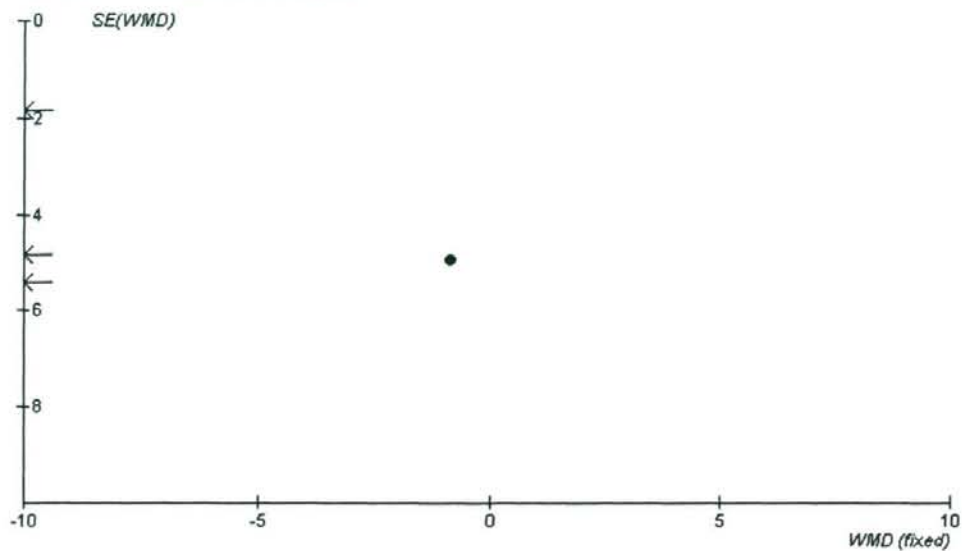


Figure 03. Funnel plot for the outcome total mood disturbance

Review: Psychotherapy for depression among incurable cancer patients
Comparison: 01 Psychotherapy versus treatment as usual
Outcome: 03 Total Mood Disturbance

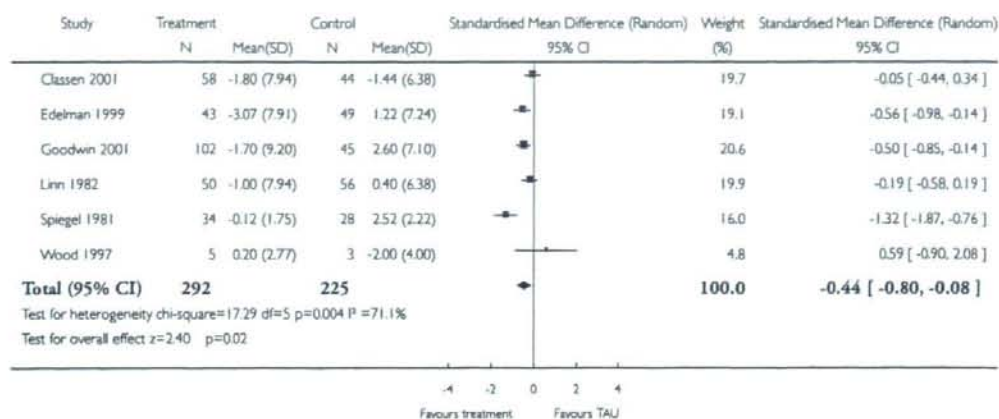


Analysis 01.01. Comparison 01 Psychotherapy versus treatment as usual, Outcome 01 Depression

Review: Psychotherapy for depression among incurable cancer patients

Comparison: 01 Psychotherapy versus treatment as usual

Outcome: 01 Depression

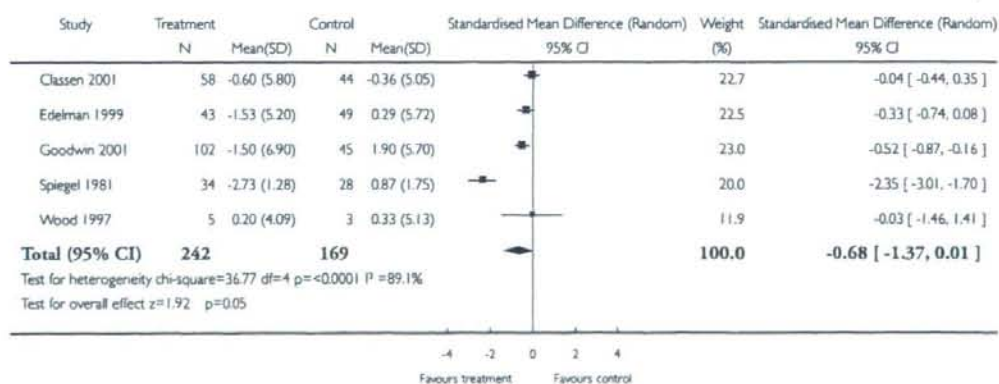


Analysis 01.02. Comparison 01 Psychotherapy versus treatment as usual, Outcome 02 Anxiety

Review: Psychotherapy for depression among incurable cancer patients

Comparison: 01 Psychotherapy versus treatment as usual

Outcome: 02 Anxiety

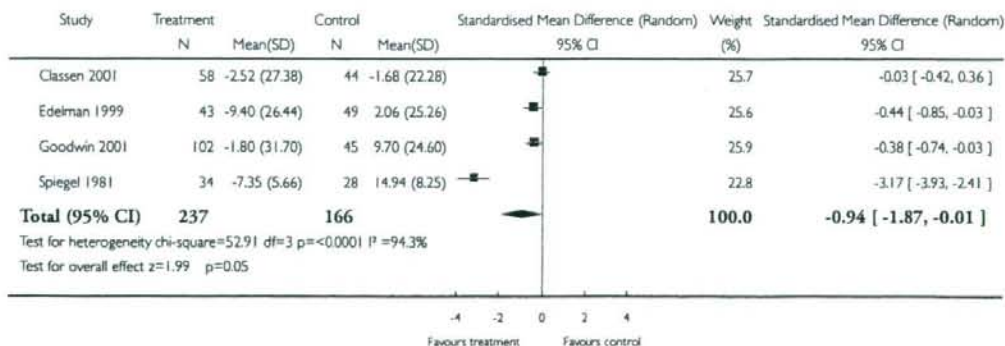


Analysis 01.03. Comparison 01 Psychotherapy versus treatment as usual, Outcome 03 Total Mood Disturbance

Review: Psychotherapy for depression among incurable cancer patients

Comparison: 01 Psychotherapy versus treatment as usual

Outcome: 03 Total Mood Disturbance

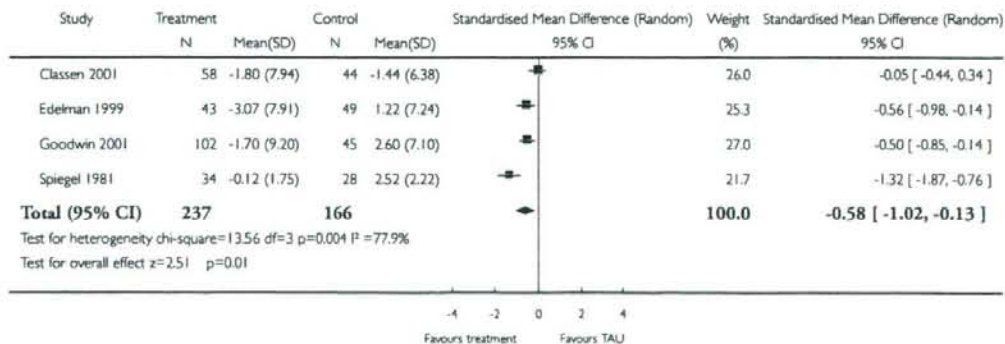


Analysis 02.01. Comparison 02 Subgroup analyses, Outcome 01 Depression

Review: Psychotherapy for depression among incurable cancer patients

Comparison: 02 Subgroup analyses

Outcome: 01 Depression

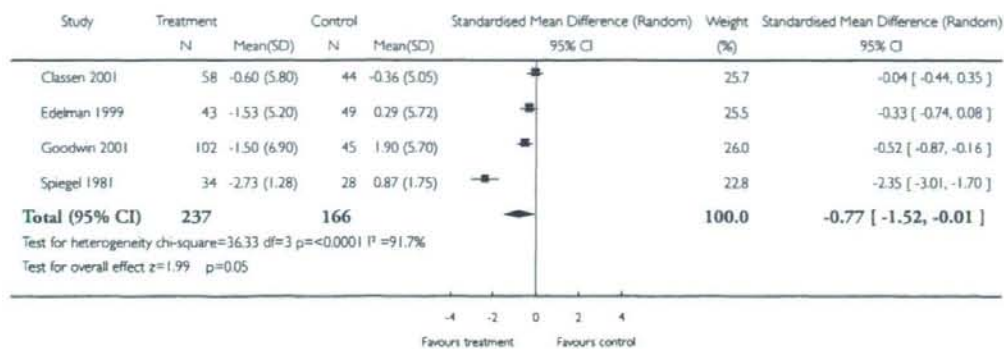


Analysis 02.02. Comparison 02 Subgroup analyses, Outcome 02 Anxiety

Review: Psychotherapy for depression among incurable cancer patients

Comparison: 02 Subgroup analyses

Outcome: 02 Anxiety

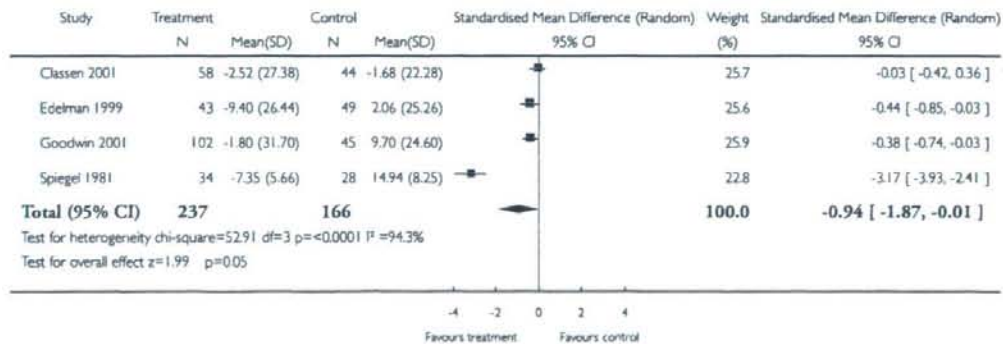


Analysis 02.03. Comparison 02 Subgroup analyses, Outcome 03 Total Mood Disturbance

Review: Psychotherapy for depression among incurable cancer patients

Comparison: 02 Subgroup analyses

Outcome: 03 Total Mood Disturbance

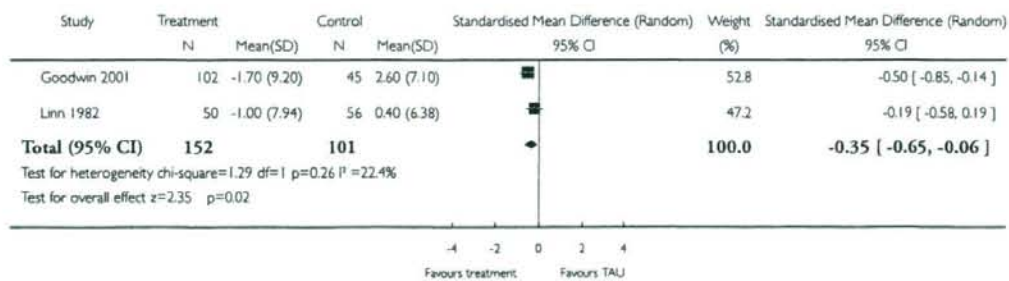


Analysis 03.01. Comparison 03 Sensitivity analyses, Outcome 01 Depression

Review: Psychotherapy for depression among incurable cancer patients

Comparison: 03 Sensitivity analyses

Outcome: 01 Depression



Psychiatric disorders and background characteristics of cancer patients' family members referred to psychiatric consultation service at National Cancer Center Hospitals in Japan

MARIKO ASAI, M.A.,^{1,2} TATSUO AKECHI, M.D., PH.D.,³ TOMOHITO NAKANO, M.D.,⁴
KEN SHIMIZU, M.D., PH.D.,⁵ SHINO UMEZAWA, R.N., M.S.N.,⁶ NOBUYA AKIZUKI, M.D., PH.D.,¹
AND YOSUKE UCHITOMI, M.D., PH.D.¹

¹Psycho-Oncology Division, Research Center for Innovative Oncology, National Cancer Center Hospital East, Chiba, Japan

²Graduate School of Comprehensive Human Science, University of Tsukuba, Ibaraki, Japan

³Department of Psychiatry and Cognitive-Behavioral Medicine, Nagoya City University Graduate School of Medical Science, Nagoya, Aichi, Japan

⁴Department of Psychiatry, Kitasato Institute Hospital, Tokyo, Japan

⁵Psychiatry Service, National Cancer Center Hospital, Tokyo, Japan

⁶Nursing Division, National Cancer Center Hospital, Tokyo, Japan

(RECEIVED May 10, 2007; ACCEPTED August 17, 2007)

ABSTRACT

Objective: Psychological distress of cancer patients' family members is treated by psychiatric consultation service for outpatients at National Cancer Center Hospitals in Japan. The purpose of this study was to identify psychiatric disorders and explore background characteristics of cancer patients' family members referred to psychiatric consultation service, so that we could better understand current utilization of this psychiatric consultation service for cancer patients' family members.

Methods: A retrospective descriptive study using clinical practice data obtained for 5 years (from January 2000 to December 2004) was conducted at two National Cancer Center Hospitals. We reviewed the psychiatric consultation database, computerized patient database of the National Cancer Center Hospitals, and medical charts of cancer patients' family members who were referred to psychiatry and their cancer patients.

Results: Out of a total of 4992 psychiatric consultations, 118 (2%) were for cancer patients' family members. The most common psychiatric disorders among cancer patients' family members were adjustment disorders ($n = 69$, 58%), followed by major depression ($n = 30$, 25%). Female ($n = 101$, 86%), spouse ($n = 87$, 74%), married ($n = 92$, 78%), and housewife ($n = 63$, 53%) were the most common background characteristics of the family members. Sixty-four percent of cancer patients ($n = 75$) were hospitalized at the time of their family members' referral and 34% of cancer patients ($n = 40$) had already received psychiatric consultation service and 55% of cancer patients ($n = 65$) had delivered bad news prior to their family members' referral.

Significance of the research: We found that very few family members were provided with psychiatric consultation service at two National Cancer Center Hospitals. Adjustment disorders are suggested to be the most common psychiatric disorders among cancer patients' family members.

Address correspondence and reprint requests to: Yosuke Uchitomi, Psycho-Oncology Division, Research Center for Innovative Oncology, National Cancer Center Hospital East, 6-5-1 Kashiwanoha, Kashiwa, Chiba, 277-8577, Japan. E-mail: yuchitomi@east.ncc.go.jp