

Regenerative Health Programme

Role of Complementary Therapies, Self-Help Approaches and Health Coaching in:

Cancer



Riboli, E. and T. Norat. **Epidemiologic evidence of the protective effect of fruit and vegetables on cancer risk.** *Am J Clin Nutr*, 2003. 78(3 Suppl): p. 559S-569S ABSTRACT
Background: Diets rich in fruit and vegetables have been recommended for preventing cancer. The evidence supporting this recommendation is based on observational studies, although results of several prospective studies have cast some doubts on whether fruit and vegetables are associated with cancer risk reduction.
Objective: We sought to summarize evidence from case-control and prospective studies on fruit and vegetable intake and cancer risk with a meta-analytic approach.
Design: Published case-control and cohort studies that reported on total vegetable and fruit intake and risk of cancer of several sites were included. Relative risks were estimated by using linear logistic regression models.
Results: Case-control studies overall support a

significant reduction in the risks of cancers of the esophagus, lung, stomach, and colorectum associated with both fruit and vegetables; breast cancer is associated with vegetables but not with fruit; and bladder cancer is associated with fruit but not with vegetables. The overall relative risk estimates from cohort studies suggest a protective effect of both fruit and vegetables for most cancer sites considered, but the risk reduction is significant only for cancers of the lung and bladder and only for fruit.
Conclusions: Prospective studies provide weaker evidence than do case-control studies of the association of fruit and vegetable consumption with reduced cancer risk. The discrepancies may be related to recall and selection biases in case-control studies. In contrast, the association may have been underestimated in prospective studies because of the combined effects of imprecise dietary measurements and limited variability of dietary intakes within each cohort.

<http://www.ajcn.org/content/78/3/559S.full>

Burden B, Herron-Marx S, Clifford C. **The increasing use of reiki as a complementary therapy in specialist palliative care.** *Int J Palliat Nurs*. 2005 May;11(5):248-53.
Palliative medicine and complementary therapies (CTs) have developed within the NHS as parallel philosophies of care. As a result, the last decade has seen an increase in the integration and usage of CTs, as adjunct therapies to conventional medical treatment. Documented benefits of relaxation, decreased perception of pain, reduced anxiety and

improved sense of wellbeing have been shown to enable an enhanced quality of life, where curative treatment is no longer an option. Reiki is a more recent addition to the range of CTs available to cancer patients. As an energy-healing intervention it has gained in popularity as a non-invasive and non-pharmacological approach. Anecdotal evidence suggests that the profound relaxation effect has a positive impact on alleviating anxiety, stress, perception of pain and promotes a feeling of wellbeing particularly relating to the nature of psychospiritual wellbeing. However, there is very little evidence to support its application within clinical practice, and none within the specific field of specialist palliative care (SPC). This article will consider the position of reiki as an emerging CT within SPC. The function of the hospice movement, the role of CTs together with an understanding of energy healing will also be explored. Within this context, the rise in popularity of reiki and its potential benefits for SPC patients will be discussed. These considerations will then form the basis of the justification for further research in SPC. http://www.internurse.com/cgi-bin/go.pl/library/article.cgi?uid=18117;article=IJPJN_11_5_248_253

Stein C. **Modifiable risk factors for cancer.** *British Journal of Cancer* (2004) 90, 299–303. doi:10.1038/sj.bjc.6601509

Over 6 million people around the world die from cancer each year. Modifiable risk factors have been linked to a wide range of malignancies, including cancers of the oropharynx, oesophagus, larynx, lung, kidney, bladder, pancreas, skin, stomach, ovary, breast, cervix, uterus, prostate, and colon. Research indicates that over half of all cancers in developed countries could be prevented if we implemented population-wide measures to promote the following behaviours: reduce tobacco use, increase physical activity, control weight, improve diet, limit alcohol, utilise safer sex practices, get routine cancer screening tests, and avoid excess sun exposure.

<http://www.nature.com/bjc/journal/v90/n2/full/6601509a.html>

Jiao L. **A combined healthy lifestyle score and risk of pancreatic cancer in a large cohort study.** *Arch Intern Med.* 2009 Apr 27;169(8):764-70.

Background Smoking, alcohol use, diet, body mass index (calculated as weight in kilograms divided by height in meters squared), and physical activity have been studied independently in relation to pancreatic cancer. We generated a healthy lifestyle score to investigate their joint effect on risk of pancreatic cancer.

Methods In the prospective National Institutes of Health–AARP Diet and Health Study, a total of 450 416 participants aged 50 to 71 years completed the baseline food frequency questionnaire (1995-1996) eliciting diet and lifestyle information and were followed up through December 31, 2003. We identified 1057 eligible incident pancreatic cancer cases. Participants were scored on 5 modifiable lifestyle factors as unhealthy (0 points) or healthy (1 point) on the basis of current epidemiologic evidence. Participants received 1 point for each respective lifestyle factor: nonsmoking, limited alcohol use, adherence to the Mediterranean dietary pattern, body mass index (18 and <25), or regular physical activity. A combined score (0-5 points) was calculated by summing the scores of the 5 factors. Cox proportional hazards regression models were used to estimate relative risk (95% confidence interval) for pancreatic cancer.

Results Compared with the lowest combined score (0 points), the highest score (5 points) was associated with a 58% reduction in risk of developing pancreatic cancer in all participants (relative risk, 0.42; 95% confidence interval, 0.26-0.66; $P_{\text{trend}} < .001$). Scores of less than 5 points were associated with 27% of pancreatic cancer cases in our

population.

Conclusion Findings from this large study suggest that having a high score, as opposed to a low score, on an index combining 5 modifiable lifestyle factors substantially reduces the risk of developing pancreatic cancer.

<http://archinte.ama-assn.org/cgi/content/full/169/8/764>

Ronit Peled. **Breast cancer, psychological distress and life events among young women.** BMC Cancer 2008, 8:245

Since 1983, studies have suggested an interaction between the severe life events, psychological distress and the etiology of Cancer. However, these associations are still under dispute. The aim of the present study was to examine the relationship between life events, psychological distress and Breast Cancer (BC) among young women.

Methods A case control study. The study population included 622 women, under the age of 45 years. 255 were diagnosed for BC, and 367 were healthy women. A validated Brief Symptom Inventory (BSI) and Life Event Questionnaire were used.

Results The cases presented significantly higher scores of depression compared to the controls and significant lower scores of happiness and optimism. A significant difference was found when comparing the groups according to the cumulative number of life events (two or more events). A multivariate analysis suggest that exposure to more than one life event is positively associated with BC [Odds Ratio(OR) :1.62 95% Confidence Interval (CI): 1.09–2.40], and that a general feeling of happiness and optimism has a "protective effect" on the etiology of BC. (OR-0.75, 95% CI:0.64–0.86).

Conclusion Young women who were exposed to a number of life events, should be considered as a risk group for BC and treated accordingly.

<http://www.biomedcentral.com/1471-2407/8/245>

Clarke CA, Purdie DM, Glaser SL: **Population attributable risk of breast cancer in white women associated with immediately modifiable risk factors.** BMC Cancer 2006 , 27(6):170.

Background Estrogen/progestin replacement therapy (EPRT), alcohol consumption, physical activity, and breast-feeding duration differ from other factors associated with breast cancer in being immediately modifiable by the individual, thereby representing attractive targets for future breast cancer prevention efforts. To justify such efforts, it is vital to quantify the potential population-level impacts on breast cancer considering population variations in behavior prevalence, risk estimate, and baseline incidence.

Methods For each of these four factors, we calculated population attributable risk percents (PARs) using population-based survey (2001) and cancer registry data (1998–2002) for 41 subpopulations of white, non-Hispanic California women aged 40–79 years, and ranges of relative risk (RR) estimates from the literature.

Results Using a single RR estimate, subpopulation PARs ranged from 2.5% to 5.6% for hormone use, from 0.0% to 6.1% for recent consumption of ≥ 2 alcoholic drinks daily, and 4.6% to 11.0% for physical inactivity. Using a range of RR estimates, PARs were 2–11% for EPRT use, 1–20% for alcohol consumption and 2–15% for physical inactivity. Subpopulation data were unavailable for breastfeeding, but PARs using published RR estimates ranged from 2% to 11% for lifetime breastfeeding ≥ 31 months. Thus, of 13,019 breast cancers diagnosed annually in California, as many as 1,432 attributable to EPRT use, 2,604 attributable to alcohol consumption, 1,953 attributable to physical inactivity, and 1,432 attributable to never breastfeeding might be avoidable.

Conclusion The relatively feasible lifestyle changes of discontinuing EPRT use, reducing

alcohol consumption, increasing physical activity, and lengthening breastfeeding duration could lower population breast cancer incidence substantially.

<http://www.biomedcentral.com/1471-2407/6/170>

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

Abstract

Research suggests that patients with cancer, particularly in the palliative care setting, are increasingly using aromatherapy and massage. There is good evidence that these therapies may be helpful for anxiety reduction for short periods, but few studies have looked at the longer term effects. This study was designed to compare the effects of four-week courses of aromatherapy massage and massage alone on physical and psychological symptoms in patients with advanced cancer. Forty-two patients were randomly allocated to receive weekly massages with lavender essential oil and an inert carrier oil (aromatherapy group), an inert carrier oil only (massage group) or no intervention. Outcome measures included a Visual Analogue Scale (VAS) of pain intensity, the Verran and Snyder-Halpern (VSH) sleep scale, the Hospital Anxiety and Depression (HAD) scale and the Rotterdam Symptom Checklist (RSCL). We were unable to demonstrate any significant long-term benefits of aromatherapy or massage in terms of improving pain control, anxiety or quality of life. However, sleep scores improved significantly in both the massage and the combined massage (aromatherapy and massage) groups. There were also statistically significant reductions in depression scores in the massage group. In this study of patients with advanced cancer, the addition of lavender essential oil did not appear to increase the beneficial effects of massage. Our results do suggest, however, that patients with high levels of psychological distress respond best to these therapies.

<http://www.ncbi.nlm.nih.gov/pubmed/15046404>

Wilkinson SM, Love SB, Westcombe AM, Gambles MA, Burgess CC, Cargill A, Young T, Maher EJ, Ramirez AJ. **Effectiveness of aromatherapy massage in the management of anxiety and depression in patients with cancer: a multicenter randomized controlled trial.** J Clin Oncol. 2007 Feb 10;25(5):532-9.

Abstract

Purpose To test the effectiveness of supplementing usual supportive care with aromatherapy massage in the management of anxiety and depression in cancer patients through a pragmatic two-arm randomized controlled trial in four United Kingdom cancer centers and a hospice.

Patients and Methods Two hundred eighty-eight cancer patients, referred to complementary therapy services with clinical anxiety and/or depression, were allocated randomly to a course of aromatherapy massage or usual supportive care alone.

Results Patients who received aromatherapy massage had no significant improvement in clinical anxiety and/or depression compared with those receiving usual care at 10 weeks postrandomization (odds ratio [OR], 1.3; 95% CI, 0.9 to 1.7; P = .1), but did at 6 weeks postrandomization (OR, 1.4; 95% CI, 1.1 to 1.9; P = .01). Patients receiving aromatherapy massage also described greater improvement in self-reported anxiety at both 6 and 10 weeks postrandomization (OR, 3.4; 95% CI, 0.2 to 6.7; P = .04 and OR, 3.4; 95% CI, 0.2 to 6.6; P = .04), respectively.

Conclusion Aromatherapy massage does not appear to confer benefit on cancer patients' anxiety and/or depression in the long-term, but is associated with clinically

important benefit up to 2 weeks after the intervention.

<http://jco.ascopubs.org/content/25/5/532.full>

Fellowes D, Barnes K, Wilkinson S. **Aromatherapy and massage for symptom relief in patients with cancer.** Cochrane Database Syst Rev. 2004;(2):CD002287.

Abstract

Background Aromatherapy massage is a commonly used complementary therapy, and is employed in cancer and palliative care largely to improve quality of life and reduce psychological distress.

Objectives To investigate whether aromatherapy and/or massage decreases psychological morbidity, lessens symptom distress and/or improves the quality of life in patients with a diagnosis of cancer.

Search strategy We searched CENTRAL (Cochrane Library Issue 1 2002), MEDLINE (1966 to May week 3 2002), CINAHL (1982 to April 2002), British Nursing Index (1994 to April 2002), EMBASE (1980 to Week 25 2002), AMED (1985 to April 2002), PsycINFO (1887 to April week 4 2002), SIGLE (1980 to March 2002), CancerLit (1975 to April 2002) and Dissertation Abstracts International (1861 to March 2002). Reference lists of relevant articles were searched for additional studies.

Selection criteria We sought randomised controlled trials; controlled before and after studies; and interrupted time series studies of aromatherapy and/or massage for patients with cancer, that measured changes in patient-reported levels of physical or psychological distress or quality of life using reliable and valid tools.

Data collection and analysis Two reviewers independently assessed trials for inclusion in the review, assessed study quality and extracted data. Study authors were contacted where information was unclear.

Main results The search strategy retrieved 1322 references. Ten reports met the inclusion criteria and these represented eight RCTs (357 patients). The most consistently found effect of massage or aromatherapy massage was on anxiety. Four trials (207 patients) measuring anxiety detected a reduction post intervention, with benefits of 19-32% reported. Contradictory evidence exists as to any additional benefit on anxiety conferred by the addition of aromatherapy. The evidence for the impact of massage/aromatherapy on depression was variable. Of the three trials (120 patients) that assessed depression in cancer patients, only one found any significant differences in this symptom. Three studies (117 patients) found a reduction in pain following intervention, and two (71 patients) found a reduction in nausea. Although several of the trials measured changes in other symptoms such as fatigue, anger, hostility, communication and digestive problems, none of these assessments was replicated. **Authors' conclusions** Massage and aromatherapy massage confer short term benefits on psychological wellbeing, with the effect on anxiety supported by limited evidence. Effects on physical symptoms may also occur. Evidence is mixed as to whether aromatherapy enhances the effects of massage. Replication, longer follow up, and larger trials are need to accrue the necessary evidence.

<http://onlinelibrary.wiley.com/o/cochrane/clsysrev/articles/rel0002/CD002287/frame.html>

Imanishi J et al. **Anxiolytic effect of aromatherapy massage in patients with breast cancer.** Evid Based Complement Alternat Med. 2009 Mar;6(1):123-8. Epub 2007 Jul 4. We examined how aromatherapy massage influenced psychologic and immunologic parameters in 12 breast cancer patients in an open semi-comparative trial. We compared the results 1 month before aromatherapy massage as a waiting control period with those during aromatherapy massage treatment and 1 month after the completion of aromatherapy sessions. The patients received a 30 min aromatherapy massage twice a

week for 4 weeks (eight times in total). The results showed that anxiety was reduced in one 30 min aromatherapy massage in State-Trait Anxiety Inventory (STAI) test and also reduced in eight sequential aromatherapy massage sessions in the Hospital Anxiety and Depression Scale (HADS) test. Our results further suggested that aromatherapy massage ameliorated the immunologic state. Further investigations are required to confirm the anxiolytic effect of aromatherapy in breast cancer patients.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2644279/?tool=pubmed>

Kuriyama H, Watanabe S, Nakaya T, Kita M, Nishida N, Masaki D, et al. **Immunological and psychological benefits of aromatherapy massage.** Evidence-based Complement Alternat Med. 2005;2:179–84.

This preliminary investigation compares peripheral blood cell counts including red blood cells (RBCs), white blood cells (WBCs), neutrophils, peripheral blood lymphocytes (PBLs), CD4⁺, CD8⁺ and CD16⁺ lymphocytes, CD4⁺/CD8⁺ ratio, hematocrit, humoral parameters including serum interferon- γ and interleukin-6, salivary secretory immunoglobulin A (IgA). Psychological measures including the State-Trait Anxiety Inventory (STAI) questionnaire and the Self-rating Depression Scale (SDS) between recipients (n = 11) of carrier oil massage and aromatherapy massage, which includes sweet almond oil, lavender oil, cypress oil and sweet marjoram oil. Though both STAI and SDS showed a significant reduction (P < 0.01) after treatment with aromatherapy and carrier massage, no difference between the aromatherapy and control massage was observed for STAI and SDS. Aromatherapy, in contrast to control massage, did not significantly reduce RBC count or hematocrit. However, aromatherapy massage showed a significant (P > 0.05) increase in PBLs, possibly due to an increase in CD8⁺ and CD16⁺ lymphocytes, which had significantly increased post-treatment (P < 0.01). Consequently, the CD4⁺/CD8⁺ ratio decreased significantly (P < 0.01). The paucity of such differences after carrier oil massage suggests that aromatherapy massage could be beneficial in disease states that require augmentation of CD8⁺ lymphocytes. While this study identifies the immunological benefits of aromatherapy massage, there is a need to validate the findings prospectively in a larger cohort of patients.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1142199/>

Hadfield N. **The role of aromatherapy massage in reducing anxiety in patients with malignant brain tumours.** Intl J Palliat Nurs 2001;7:279–85.

Abstract

Research suggests that aromatherapy massage (AM) is increasingly being used by cancer patients, especially in the palliative care setting, although few studies have assessed its effectiveness. I wanted to find out whether AM reduces anxiety in patients with a primary malignant brain tumour attending their first follow-up appointment after radiotherapy. Eight patients were recruited to the study, which comprised three methods of data collection: the measurement of physical parameters; the completion of Hospital Anxiety and Depression Scales (HADS); and semi-structured interviews. The results from HADS did not show any psychological benefit from AM. However, there was a statistically significant reduction in all four physical parameters, which suggests that AM affects the autonomic nervous system, inducing relaxation. This finding was supported by the patients themselves, all of whom stated during interview that they felt 'relaxed' after AM. Since these patients are faced with limited treatment options and a poor prognosis, this intervention appears to be a good way of offering support and improving quality of life. <http://www.ncbi.nlm.nih.gov/pubmed/12066022>

