



“Mindfulness for cancer patients”

Day: Wednesday 11th July 2018 Time: 9:00 – 10:15 am Track: Clinical Applications

Receiving a cancer diagnosis can have a major impact on the quality of life of patients and their close others. Cancer patients often suffer from physical symptoms, such as fatigue and pain, and undergo intensive treatment, including surgery, chemo- and radiotherapy. Not surprisingly, approximately one third of cancer patients experience significant levels of psychological distress.

In recent years mindfulness-based interventions have been applied successfully in cancer patients. An increasing amount of research has been devoted to examine the effectiveness of MBIs in cancer. Several meta-analyses have demonstrated moderate effects of MBIs in reducing psychological distress in cancer patients. Recent randomized controlled trials also demonstrated improvements with regard to fear of cancer recurrence, fatigue, quality of life and wellbeing.

In the present symposium, we will address four of the key topics in the field of mindfulness research in oncology, including the effectiveness and implementation of MBCT, the role of the therapist, the role of mindfulness in grieving, and cognitive functioning after cancer treatment.

1. Maja Johannsen will present the results of a randomized controlled trial investigating the cost-effectiveness of MBCT for pain in women treated for primary breast cancer with late-treatment pain.
2. Else Bisseling will discuss whether and how therapeutic alliance and therapist competence are related to the outcomes in distressed cancer patients after MBCT participation.
3. Melanie Schellekens will present the results of a qualitative study in which she examined whether participating in MBSR for couples facing lung cancer can benefit partners later on, around the death of the patient and during bereavement.
4. Soumaya Ahmadoun will present the results of a pilot study assessing the impact of a mindfulness-based intervention (MBI) on the cognitive complaints and cognitive functioning after cancer treatment.



Symposium overview

- Presenter 1** **Maja Johannsen** - Mindfulness and late-treatment pain in women treated for breast cancer: A step toward implementation
- Presenter 2** **Else Bisseling** - Therapeutic alliance, not therapist competence, predicts outcome of Mindfulness-Based Cognitive Therapy for distressed cancer patients
- Presenter 3** **Melanie Schellekens** - The role of mindfulness in grieving over a loved one who died from lung cancer: A qualitative study.
- Presenter 4** **Soumaya Ahmadoun** - Impact of a mindfulness-based intervention on chemotherapy-induced cognitive dysfunction and brain alterations: A pilot study.
- Chair:** ***Melanie Schellekens***



Mindfulness and late-treatment pain in women treated for breast cancer: A step toward implementation

Maja Johannsen^{1,3}, O'Connor Maja^{1,3}, Mia O'Toole¹, Anders Bonde Jensen², Robert Zacharie^{1,3}

¹*Unit for Psychooncology and Health Psychology, Dept. of Psychology, Aarhus University and Dept. of Oncology, Aarhus University Hospital, Aarhus, Denmark*

²*Dept. of Oncology, Aarhus University Hospital, Aarhus, Denmark*

³*Unit for Natural and Complicated Grief, Dept. of Psychology, Aarhus University, Aarhus, Denmark*

Background: Pain is a prevalent late effect after breast cancer treatment, with one out of five women reporting pain 7 years after treatment. As pain has detrimental effects on quality-of-life (QoL), efficacious interventions seem warranted.

Methods: We conducted a randomized controlled trial of Mindfulness-Based Cognitive Therapy (MBCT), investigating the efficacy and cost-effectiveness of MBCT for pain in women treated for primary breast cancer with late-treatment pain. Women were asked to complete a questionnaire package at four time points (baseline (T1), post-intervention (T2), 3 mo. (T3), and 6 mo. follow-up (T4)). Patient-reported outcomes included different pain aspects (pain intensity, pain quality, evaluative pain, and pain burden) as the primary outcomes and psychological distress, QoL, and self-reported use of pain medication as secondary outcomes. All self-report data was pooled with data from the Danish national registries on health care utilization with the aim of examining the cost-effectiveness of MBCT compared with the waitlist alternative.

Results: A total of 129 women participated in the study. Time×group interactions showed that MBCT had a statistically significant, robust, and clinically relevant effect on pain intensity (Cohen's $d=0.61$; $p=0.002$) compared with the waitlist control group over time. A positive and statistically significant effect of MBCT was also found for neuropathic pain ($d=0.24$; $p=0.036$) and evaluative pain ($d=0.26$; $p=0.026$), although these results did not prove robust. Of the secondary outcomes, MBCT showed a statistically significant effect on QoL ($d=0.42$; $p=0.028$) and self-reported use of non-prescription pain medication ($d=0.40$ $p=0.038$). None of the remaining outcome reached statistical significance. Cost-effectiveness analyses indicated that MBCT was cost-effective, i.e., associated with better effect (OR=2.71, $p=0.03$) and lower costs (mean difference: 729€; $p=0.07$), compared with the waitlist control group.

Discussion: While MBCT seems efficacious in reducing pain, relatively high dropout rates in the MBCT group as well as risk of type 1-error challenge the robustness of the results, except for the finding for pain intensity.

Conclusion: MBCT appears to be a promising cost-effective intervention for late-treatment pain after breast cancer. Next step is to investigate whether MBCT is feasible in a study increasing external validity and including various cancer groups.



Therapeutic alliance, not therapist competence, predicts outcome of Mindfulness-Based Cognitive Therapy for distressed cancer patients

Else Bisseling^{1,2}, Félix Compen¹, melanie schellekens², marije van der lee², philip spinhoven³, anne speckens¹

¹*1: Centre for Mindfulness, Radboudumc, Nijmegen, the Netherlands, nijmegen, Netherlands*

²*2: Helen Dowling Institute, Bilthoven, the Netherlands, Bilthoven, Netherlands*

³*3: Leiden University, Leiden, the Netherlands, Leiden, Netherlands*

Background and objectives: In this study we investigated the role of treatment delivery factors - therapeutic competence and therapeutic alliance- on outcome of a mindfulness based group intervention for distressed cancer patients. The study was part of a larger multicentre randomized controlled trial (RCT) on the (cost-) effectiveness of Mindfulness-Based Cognitive Therapy (MBCT) for distressed cancer patients (Clinicaltrials.gov no. NCT02138513). All therapists were affiliated to the participating centers and fulfilled the advanced criteria of the Association of Mindfulness Based Teachers in the Netherlands and Flanders.

Methods: Primary outcome variable was psychological distress. Secondary outcomes were mindfulness skills, rumination, fear of cancer recurrence, and positive mental health. Therapist Competence was rated by two independent mindfulness therapists with the Mindfulness-Based Interventions-Teachers Assessment Criteria (MBI:TAC). Working alliance was measured by a translated and shortened form of the Working Alliance Inventory (WAI) which was administered after session 4. Using multilevel analyses, in which the level of the participant (n=84) is embedded in the level of the teacher (n=9), we examined whether therapist competence -and therapeutic alliance predict treatment outcomes.

Results: Therapist competence did not predict any outcome measure at post-treatment. Therapeutic alliance significantly predicted the level of psychological distress, rumination and fear of cancer recurrence at post-treatment, such that with a better working alliance symptom levels were significantly lower at post-treatment.

Discussion and conclusion: Therapeutic alliance, not therapist competence, is related to a decrease in psychological distress, rumination, and fear of cancer recurrence, after MBCT for distressed cancer patients.



The role of mindfulness in grieving over a loved one who died from lung cancer: A qualitative study.

Melanie Schellekens^{1,2}, Desiree van den Hurk², Marije van der Lee¹, Ellen Jansen², Miep van der Drift², Anne Speckens²

¹*Helen Dowling Institute, Bilthoven, the Netherlands, Bilthoven, Netherlands*

²*Radboud university medical centre, Nijmegen, Netherlands*

Background and objectives: Losing a partner or close other to lung cancer can be very distressing, and may lead to experiences of losing control and overwhelming emotions. Failure to support partners in their grieving process can lead to negative effects on their wellbeing, health and quality of life. This qualitative study aimed to examine whether participating in MBSR together with the lung cancer patient can benefit partners later on, around the death of the patient and during bereavement.

Methods: Participants were recruited as a follow-up to either a pilot study or a randomized controlled trial in which lung cancer patients and their partners participated together in an MBSR training. Partners were invited for participation at least 3 months after the patient's death. We conducted in-depth interviews lasting 40 to 90 minutes. Each interview started with the question how the patient's death was experienced. Subsequently the role of mindfulness around the death of the patient and during the grieving process was explored. The qualitative data was analyzed with the constant comparative method in order to develop a grounded theory.

Results: We interviewed 11 partners on average 11 months after the patient's death and on average 28 months after MBSR participation. Several themes emerged after the qualitative analysis. Partners mentioned the mindfulness practice brought them closer together in the last stage of the patient's life. They were able to support one another, communicate more openly, and appreciate the precious moments they had left together. Partners also reported being better able to accept the patients' death, such that they could let go of the past and allow feelings of sadness. Moreover, partners reported they were better able to take care of themselves, by being compassionate towards their own suffering and by asking others for help.

Discussion and conclusion: These qualitative findings indicate that when couples coping with lung cancer participate in MBSR, it can bring patients and partners closer together, help them to accept the patients' death, and help partners to take better care of themselves. In sum, mindfulness can facilitate the grieving process.



Impact of a mindfulness-based intervention on chemotherapy-induced cognitive dysfunction and brain alterations: A pilot study.

Katleen Van der Gucht¹, Soumaya Ahmadoun^{1,2}, Ellen de Cloe¹, Ann Smeets³, Filip Raes¹, Peter Kuppens¹, et al.

¹*Faculty of Psychology and Educational Sciences, KU Leuven, Leuven, Belgium*

²*Department of Radiology, University Hospitals Leuven & Department of Imaging and Pathology, KU Leuven, Leuven, Belgium*

³*Multidisciplinary Breast Center, University Hospitals Leuven, KU Leuven, Leuven, Belgium*

Background: This pilot study focuses on breast cancer patients who finished chemotherapy treatment and experience cognitive complaints. Research and expert opinions suggest that attention, memory and executive functioning are most often compromised and that cognitive deficits can persist up to 20 years post-treatment. This study aims to assess the impact of a mindfulness-based intervention (MBI) on the cognitive complaints and cognitive functioning after cancer treatment.

Methods/Design: Participants were 34 breast cancer patients who completed treatment and had cognitive complaints assessed with the cognitive failure questionnaire. They were randomized to a mindfulness condition or waitlist control condition (TAU). Assessments took place at three points in time, one week before the intervention, one week after the intervention and at three months follow-up. Primary outcomes are objective measures on cognitive functioning using cognitive tests and brain imaging (MRI) and subjective measures using (self-report) questionnaires. Symptoms of emotional distress, fatigue and mindfulness skills are secondary outcomes.

Results: Multilevel modelling showed 1) no significant changes in cognitive functioning collected via cognitive tests, and 2) a significant reduction in the subjective measure of cognitive failure, emotional distress and fatigue. Further analyses showed that improvement in mindfulness skills was correlated with a reduction of subjective cognitive failure.

Conclusion: While MBI significantly reduced cognitive complaints, MBI in the current format did not improve outcomes on objective measures of cognitive functioning in this small sample size. Positive effects, however, were observed for subjective cognitive complaints and related distress, which suggests that participants after the MBI related in a different way to their cognitive complaints.