Mind Body Medicine

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What has an Impact on Health?

- Genes: 30%
- Life style: 40%
- Health Care: 10%
- Social factors: 15%
- Environment: 5%

McGinnis et al. Health Affairs 2002
The Context of Cancer

Meta-analyses: studies from 18 countries (152 studies, N > 65,000) complementary and integrative medicine (CIM) use in cancer patients

Mean: 40%
- 25% 1970 – 1980
- 32% around 1990
- 49% after 2000

Most CIM trials with breast cancer patients

Breast cancer patients:
- high usage\(^2\)
- want be informed by their gynaecologist\(^3\)

TO ADVANCE EVIDENCE BASED, COMPREHENSIVE, INTEGRATIVE HEALTHCARE TO IMPROVE THE LIVES OF PEOPLE AFFECTED BY CANCER.
Incl. members from MSKCC, MD Anderson, Dana Farber Institute, etc.

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\(^1\)Horneber et al Integr Cancer Ther 2011, \(^2\)Abdallah et al Int J of Gyn Cancer 2015, \(^3\)Münstedt et al Breast Care (Basel) 2014
Definition of Integrative Oncology

“Integrative oncology is a patient-centered, evidence-informed field of cancer care that utilizes mind and body practices, natural products, and/or lifestyle modifications from different traditions alongside conventional cancer treatments.

Integrative oncology aims to optimize health, quality of life, and clinical outcomes across the cancer care continuum, and to empower people to prevent cancer and become active participants before, during, and beyond cancer treatment.”

Mind Body Medicine (MBM)

• Concept developed by Dr. Herbert Benson Harvard Medical School

• “an innovative, integrative concept that bridges between mind and body and emphasis self care. Combines modern scientific knowledge and best practices from complementary medicine, psychology and nutrition and sports science.”

• Swiss Mind Body Medicine Health Professional Association

• Certificate of Advanced Studies (CAS) “Health psychological life style change and Mind Body Medicine (University of Zurich)”
Mind Body Medicine Consultation
Components of the Zurich IEACI Scheme

<table>
<thead>
<tr>
<th>Components</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inform</td>
<td>Informing the patient about the origin, concept and aims of Mind Body Medicine</td>
</tr>
<tr>
<td>Evaluate</td>
<td>Evaluating the resources, values, wishes and motivation for changes of the patient</td>
</tr>
<tr>
<td>Advise</td>
<td>Describing options and discussing them with the patient within the context of his/hers values and wishes, motivation, expectations and previous experiences. Providing advice or leaving it to the patient to choose</td>
</tr>
<tr>
<td>Concretize</td>
<td>Concretizing the advice, developing individualized aims with the patient and taking action for introduction of changes</td>
</tr>
<tr>
<td>Implement</td>
<td>Instruction of exercises, execution of implementation and monitoring of changes</td>
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</tbody>
</table>
Case: Female Patient (Age 37 Years)

Diagnosis
• Breast cancer (right), pT1c, pN0, M0, G3, HER2 pos

Therapy
• Surgery (resection sentinel lymph node + segment resection and reconstruction)
• Adjuvant chemotherapy
  – 4 cycles Doxorubicin/Cyclophosphamid [AC] → Paclitaxel (Taxol®) + Trastuzumab (Herceptin®)

Clinical course
• Psychological distress
• After 1st chemotherapy
  – Nausea (4 days very severe and 2 days severe, no vomiting, difficulties drinking, weight loss 5 kg since diagnosis (BMI at time of diagnosis 22)
  – Fatigue (8 of 10 on Numeric Rating Scale 0-10)
Step-wise Treatment Plan

1. Mindfulness Meditation
   - Mood symptoms

2. Acupuncture
   - Nausea
   - CRF

3. MBM group treatment

1. Acupressure
   - Nausea
   - CRF

2. Yoga

3. Nutrition counseling

1. During consultation
2. After consultation
3. After chemotherapy
Physicians consultations: Information about mistletoe treatment, supplements, fatigue, nutrition, interactions of herbs and nutrients with chemotherapy

<table>
<thead>
<tr>
<th>min</th>
<th>Session 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<tbody>
<tr>
<td>20</td>
<td>Arrival</td>
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<td>Movement exercises</td>
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<td>Getting to know each other</td>
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<td>Introduction Diet &amp; exercise</td>
<td>Exercises</td>
<td>Physician group visit</td>
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<td>Physician group visit</td>
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<td>Break</td>
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<td>Exercises &amp; aims</td>
<td>Stress regulation</td>
<td>Perception and evaluation 1</td>
<td>Perception and evaluation 2</td>
<td>Mindfulness and pleasure</td>
<td>Mindfulness movements</td>
<td>Inside communication</td>
<td>Outside communication</td>
<td>Optional theme</td>
<td>Focus group</td>
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<td>Relaxation exercises</td>
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Guidelines for Breast Cancer

German AGO Breast Committee

Complementary Therapy
Survivorship

Clinical Practice Guidelines on the Evidence-Based Use of Integrative Therapies During and After Breast Cancer Treatment

Heather Greenlee, ND, PhD, MPH1,2; Melissa J. DuPont-Beyers, MPH, MPHPh1; Lynda G. Balneaves, RN, PhD3;
Linda E. Carlson, PhD7; Misha R. Cohen, OMD, LAc3,7; Gary Dargis, MD, PhD6; Julian A. Johnson, PhD7; Matthew Mummer, MD4,8;
Dugald Seely, ND, MSc13,16; Suzanne M. Zick, ND, MPH13,18; Lindsay M. Boyce, MLIS11; Debu Tripathy, MD16

Clinical Practice Guideline
Society of Integrative Oncology
USA
Main Recommendations

Based on a systematic review of the literature, the Society for Integrative Oncology makes the following recommendations:

- Use of music therapy, meditation, stress management and yoga for anxiety/stress reduction.
- Use of meditation, relaxation, yoga, massage and music therapy for depression/mood disorders.
- Use of meditation and yoga to improve quality of life.
- Use of acupressure and acupuncture for reducing CINV.
- There is a lack of strong evidence supporting the use of ingested dietary supplements or botanical agents as supportive care and/or to manage breast cancer treatment-related side effects.
Acupuncture

- Relatively safe\(^1\)
- > 60% of NCI designated CCCs recommend acupuncture for symptom management\(^2\)

<table>
<thead>
<tr>
<th>Method</th>
<th>Indication</th>
<th>Recommendation(^3)</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Acupuncture</td>
<td>CINV</td>
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<tr>
<td></td>
<td>Anxiety</td>
<td>✔️</td>
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<tr>
<td></td>
<td>Depression</td>
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<tr>
<td></td>
<td>CRF</td>
<td>✔️</td>
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<tr>
<td></td>
<td>Pain</td>
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<tr>
<td></td>
<td>Quality of life</td>
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<td>Hot flushes</td>
<td>✔️</td>
</tr>
</tbody>
</table>

- Pain: in addition to medication\(^4\)
  - Earlier onset of pain relief (SMD 1.06; 1.34-0.79)
  - Longer effect (SMD 1.03 ; 1.57-0.49)

\(^1\)Witt et al Forsch Komplmed 2009
\(^2\)Brauer et al J Altern Complement Med 2010
\(^3\)Witt & Cardoso Breast 2016
\(^4\)Hu et al Evid Based Complement Alternat Med 2016
Acupressure

• Safe

<table>
<thead>
<tr>
<th>Method</th>
<th>Indication</th>
<th>Recommendation¹</th>
<th>all</th>
<th>individual</th>
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</thead>
<tbody>
<tr>
<td>Acupressure</td>
<td>• CINV</td>
<td>✓</td>
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</table>

• Cancer Related Fatigue²
  • Breast cancer, 12 months after treatment
  • N=375 breast cancer patients
  • 1x/day, 3 min/point over 6 weeks
  • Control: usual care
  • Responders (normal BFI scores)
    – Usual Care 30%
    – Stimulating acupressure 60%
    – Relaxing acupressure 66%

¹Witt & Cardoso Breast 2016, ²Zick et al JAMA Oncol 2016
## Yoga

<table>
<thead>
<tr>
<th>Method</th>
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<tr>
<td></td>
<td>• Depression</td>
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<tr>
<td></td>
<td>• Quality of life</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>• CRF</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>• Insomnia</td>
<td>✔</td>
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1. Different forms of yoga (gentle to athletically)
2. Instructor should have experience with cancer patients
3. Smaller groups are preferable
Mindfulness Based Stress Reduction (MBSR)

- "mindfulness means **paying attention** in a particular way; **on purpose**, in the **present moment**, and **non judgmentally**." *(Jon Kabat-Zinn)*
- Mindfulness based stress reduction (MBSR) program 8 weeks
- **Meta-analyses: moderate effect sizes for:**\(^1\)
  - Stress 0.51 (95% KI 0.36;0.67)
  - Depression 0.37 (0.28;0.45)
  - Anxiety 0.49 (0.37;0.61)
  - Quality of life 0.39 (0.08;0.70)

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<thead>
<tr>
<th>Method</th>
<th>Indication</th>
<th>Recommendation(^2) all</th>
<th>Recommendation(^2) individual</th>
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<tr>
<td>MBSR</td>
<td>• Anxiety</td>
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<td></td>
<td>• Depression</td>
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<tr>
<td></td>
<td>• Quality of life</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Stress</td>
<td>✓</td>
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- **Mechanisms:** attention regulation, body awareness, emotion regulation, change in perspective on the self\(^3\)

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Summary

- Mind body medicine combines effective interventions as part of integrative oncology
- Should be individualized
- Could be used in addition to cancer treatment in all stages of cancer