Survivorship in Breast Cancer

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Course Director & Producer: VJ Periyakoil, MD
Disease as a Stressor

- Diagnosis
- Pain
- Facing mortality
- Fear
- Decisions about treatment
- Changes in social environment
- Aduous treatments
- Reduced physical capability

Consequences of Cancer & Its Treatment

- Psychologic distress
- Sexual dysfunction
- Infertility
- Impaired organ function
- Risk of second cancer
- Cosmetic changes
- Limitations in mobility
- Communication difficulties
- Cognitive dysfunction
- Discrimination

Stages of Cancer Adjustment

<table>
<thead>
<tr>
<th>Period</th>
<th>Associated Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial diagnosis</td>
<td>Existential crisis, life change</td>
</tr>
<tr>
<td>Acute treatment</td>
<td>Treatment adverse effects</td>
</tr>
<tr>
<td></td>
<td>Depletion of family, social, vocational roles</td>
</tr>
<tr>
<td>End of acute treatment</td>
<td>Increased sense of vulnerability</td>
</tr>
<tr>
<td>Survivorship</td>
<td>Loss of regular contact with medical team</td>
</tr>
<tr>
<td></td>
<td>Privacy privacy</td>
</tr>
<tr>
<td>Relapse</td>
<td>Anxiety about recurrence, Postponed personal problems, Long-term effects of treatment</td>
</tr>
<tr>
<td></td>
<td>Treatment adverse effects, Loss of social roles</td>
</tr>
<tr>
<td>Terminal illness</td>
<td>Death anxiety, Process of dying</td>
</tr>
<tr>
<td></td>
<td>Pain control, Separation from loved ones</td>
</tr>
</tbody>
</table>
Current Focus on Survivorship

- Rapidly growing population
- Advances in diagnosis and treatment
- More opportunity and recognition of late effects
- Greater emphasis on patient-centered issues
- Increasing expectations of patients

U.S. Cancer Survivors

- Breast: 23%
- Prostate: 15%
- Colorectal: 8%
- Gynecologic: 7%
- Hematologic: 8%
- Urinary Tract: 9%
- Melanoma: 19%
- Lung: 10%
- Other: 6%


Female Cancer Survivors by Site

Distribution of female cancer survivors in the U.S. by site, 2002

SOURCE: National Cancer Institute

Data from: From Cancer Patient to Cancer Survivor: Lost in Transition, 2010 – Institute of Medicine – www.iom.edu
Psychosocial Care Integral for Breast Cancer Patients, Report Concludes

Study finds that a large number of women with breast cancer have unmet psychosocial needs, and that many women with breast cancer have unmet psychosocial needs. The study also found that a large number of women with breast cancer have unmet psychosocial needs, and that many women with breast cancer have unmet psychosocial needs.

The study also found that a large number of women with breast cancer have unmet psychosocial needs, and that many women with breast cancer have unmet psychosocial needs.
IOM Report
Standard of Care Recommendation

All cancer care should ensure the provision of appropriate psychosocial health services by:
• Facilitating effective communication between patients and care ‘providers’ (sic)
• Identify each patient’s psychosocial health needs
• Designing and Implementing a plan that:
  • Links the patient with needed psychosocial services
  • Coordinates biomedical and psychosocial care
  • Engages and supports patients in managing their illness and health
• Systematically following up on, re-evaluating, and adjusting plans

Recommendations: 2005 IOM Report

1. Raise awareness
2. Provide care plan
3. Develop clinical practice guidelines
4. Define quality health care
5. Overcome delivery system challenges
6. Include as public health concern
7. Improve professional capacity
8. Address employment-related concerns
9. Improve access to health insurance
10. Invest in research

Lost in Transition Report 2005 Institute of Medicine

Elements of a Survivorship Care Plan

Record of Care
• Upon discharge from cancer treatment, including treatment of recurrences, every patient should be given a record of all care received and important disease characteristics.
• This should include, at a minimum:
  • Diagnostic tests performed and results.
  • Tumor characteristics (e.g., site(s), stage and grade, hormonal status, marker information).
  • Dates of treatment initiation and completion.
  • Surgery, chemotherapy, radiotherapy, transplant, hormonal therapy, gene or other therapies provided, including agents used, treatment regimen, total dosage, identifying number and title of clinical trials (if any), indicators of treatment response, and toxicities experienced during treatment.
  • Psychosocial, nutritional, and other supportive services provided.
  • Full contact information on treating institutions and key individual providers.
  • Identification of a key point of contact and coordinator of continuing care.
Where to Provide Survivorship Care?

1. Oncology programs
2. Community programs – Wellness Community, Gilda’s Club, Breast Cancer Connections, NCCN, Y-ME, etc.
3. Internet
4. Involve family/networks
5. Broaden intervention schemes
   a) Groups
   b) Education
   c) Family
   d) Peer navigation

IOM 2007 Report Standard of Care Recommendation

All cancer care should ensure the provision of appropriate psychosocial health services by:

- Facilitating effective communication between patients and care providers.
- Identify each patient’s psychosocial health needs.
- Designing and implementing a plan that:
  - Links the patient with needed psychosocial services.
  - Coordinates biomedical and psychosocial care.
  - Engages and supports patients in managing their illness and health.
  - Systematically following up on, re-evaluating, and adjusting plans.
"Addressing psychosocial needs should be an integral part of quality cancer care."
—p. 55

"Evidence supports the effectiveness of services aimed at relieving the emotional distress that accompanies many chronic illnesses, including cancer, even in the case of debilitating depression and anxiety."
—p. 65

<table>
<thead>
<tr>
<th>Depression and Medical Illness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
</tr>
<tr>
<td>General</td>
</tr>
<tr>
<td>Outpatients</td>
</tr>
<tr>
<td>Inpatients</td>
</tr>
<tr>
<td>Cancer Patients</td>
</tr>
<tr>
<td>Terminally Ill</td>
</tr>
<tr>
<td>Request Assisted Suicide</td>
</tr>
</tbody>
</table>
Genetic Vulnerability to Stress-Induced Depression


Studies of Depression and Cancer Biology

Incidence:
- 6 found positive association
- 24 did not

Progression:
- 15 found positive association
- 9 did not

Depression Change in Year 1 and Subsequent Breast Cancer Survival

<table>
<thead>
<tr>
<th>Sample</th>
<th>N</th>
<th>Median Survival (Months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreasing CES-D in Year 1</td>
<td>48</td>
<td>60.5</td>
</tr>
<tr>
<td>Increasing CES-D in Year 1</td>
<td>53</td>
<td>35.8</td>
</tr>
<tr>
<td>Died in First Year</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>125</td>
<td>44</td>
</tr>
</tbody>
</table>

(Giese-Davis, J., Spiegel, D. et al., submitted, 2006)
Psychosocial Treatment Therapy Models

**Individual**
- Individual therapy
- Individual supportive counseling
- Peer counseling

**Group**
- Supportive-Expressive therapy
- Cognitive behavioral therapy
- Experiential-existential
- Relaxation training
- Education and information
- Coping skills training
- Stress management/behavioral training
- Family therapy
- Peer-led group psychotherapy

Supportive/Expressive Group Psychotherapy: Themes

1. Building Bonds
2. Expressing Emotion
3. Detoxifying Dying
4. Reordering Life Priorities
5. Fortifying Families
6. Clarifying Communication with Doctors
7. Symptom Management
Supportive/Expressive Group Therapy

- Expressing Emotion
  - Facing feelings directly
  - Restructuring feelings in a supportive social context
  - Emotion as a source of closeness rather than isolation

When angry, count four!
When very angry, swear.
Mark Twain

Thomas Jefferson

Mean Depression Scores Analyzed by Anxious Preoccupation and Emotional Control
Effect of Group Therapy for Metastatic Breast Cancer on IES Total Score Over One Year


![Graph showing the effect of group therapy for metastatic breast cancer on IES total score over one year.](image)

Time
Baseline 4 Months 8 Months 12 Months

Control Means
Control Slope
Treatment Means
Treatment Slope

N = 45
N = 58

P = .02


The effects of psychoeducational care provided to adults with cancer: meta-analysis of 116 studies


<table>
<thead>
<tr>
<th>Outcome</th>
<th>% of Studies With Positive Outcomes (n)</th>
<th>d (95%)</th>
<th>95% CI</th>
<th>Z</th>
<th>p</th>
<th>p&lt;.05</th>
<th>Z-test for differences in sample proportions, one-tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>93 (68)</td>
<td>0.56 (0.55)</td>
<td>0.42</td>
<td>0.70</td>
<td>13*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>92 (68)</td>
<td>0.54 (0.42)</td>
<td>0.43</td>
<td>0.65</td>
<td>8*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mood</td>
<td>67 (35)</td>
<td>0.45 (0.37)</td>
<td>0.32</td>
<td>0.58</td>
<td>6*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nausea</td>
<td>92 (27)</td>
<td>0.69 (0.2)</td>
<td>0.46</td>
<td>0.92</td>
<td>38*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vomiting</td>
<td>81 (16)</td>
<td>0.44 (0.12)</td>
<td>0.30</td>
<td>0.60</td>
<td>3*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain</td>
<td>72 (13)</td>
<td>0.43 (0.11)</td>
<td>0.35</td>
<td>0.59</td>
<td>30*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>98 (98)</td>
<td>0.90 (0.16)</td>
<td>0.61</td>
<td>1.20</td>
<td>40*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A Palliation Education Network Production © V.J. Periyakoil, MD
Psychosocial Intervention & Depression in Cancer Patients

**Conclusion**
In patients with cancer, psychosocial interventions are effective for reducing depressive symptoms.

<table>
<thead>
<tr>
<th>Type of intervention</th>
<th>Number of studies</th>
<th>Overall effect: number of studies showing improvement or no difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior therapy only</td>
<td>17</td>
<td>11 improvement, 6 no difference</td>
</tr>
<tr>
<td>Counseling only</td>
<td>10</td>
<td>7 improvement, 3 no difference</td>
</tr>
<tr>
<td>Education only</td>
<td>7</td>
<td>4 improvement, 3 no difference</td>
</tr>
<tr>
<td>Counseling and education</td>
<td>8</td>
<td>8 improvement, 2 no difference</td>
</tr>
<tr>
<td>Behavior therapy and education</td>
<td>4</td>
<td>4 improvement, 1 no difference</td>
</tr>
</tbody>
</table>

Experimental psychosocial interventions vs usual care or an attentional control group for depression symptoms in cancer

11/16/10

**Psychotherapy Reduces Depression in Advanced Cancer**


**Analysis H-1: Comparison II Psychotherapy versus usual care, Outcome II Depression**

<table>
<thead>
<tr>
<th>Study</th>
<th>Comparison Group</th>
<th>Control Group</th>
<th>Standardized Mean Difference (SD)</th>
<th>N</th>
<th>Standard Error</th>
<th>95% CI of Standardized Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>Behavioral</td>
<td>3.47 (1.93)</td>
<td>-0.29 (1.39)</td>
<td>46</td>
<td>0.39</td>
<td>-0.95 to 0.37</td>
</tr>
<tr>
<td>Hospital</td>
<td>Behavioral</td>
<td>3.47 (1.93)</td>
<td>-0.29 (1.39)</td>
<td>46</td>
<td>0.39</td>
<td>-0.95 to 0.37</td>
</tr>
<tr>
<td>Norway</td>
<td>Behavioral</td>
<td>3.47 (1.93)</td>
<td>-0.29 (1.39)</td>
<td>46</td>
<td>0.39</td>
<td>-0.95 to 0.37</td>
</tr>
<tr>
<td>Japan</td>
<td>Behavioral</td>
<td>3.47 (1.93)</td>
<td>-0.29 (1.39)</td>
<td>46</td>
<td>0.39</td>
<td>-0.95 to 0.37</td>
</tr>
<tr>
<td>Italy</td>
<td>Behavioral</td>
<td>3.47 (1.93)</td>
<td>-0.29 (1.39)</td>
<td>46</td>
<td>0.39</td>
<td>-0.95 to 0.37</td>
</tr>
<tr>
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<td>46</td>
<td>0.39</td>
<td>-0.95 to 0.37</td>
</tr>
</tbody>
</table>

**"Give sorrow words: The grief that does not speak whispers the o'er-fraught heart, and bids it break".**
—Shakespeare, Macbeth
Please click on the task bar above to move to the next chapter.
Supportive-expressive group therapy for women with metastatic breast cancer: survival and psychosocial outcome from a randomized control trial

David W. Kossex, Brenda Grabsch, David W. Clarke, Graeme C. Smith, Anthony W. Love, Sidney Bloch, Raymond D. Snyder and Yuelin Li

Figure 2. Kaplan-Meier survival curves for treatment and control groups by ER negative and ER positive status. Cox proportional hazards interaction $B = -1.84$ (Wald = 9.76, $p = 0.002$) for overall interaction between ER status and group condition.

UK and USA breast cancer deaths down 25% in year 2000

Peto et al., *Lancet* 2000; 355: 1822

UK and USA breast cancer deaths down 25% in year 2000

Psychologic intervention improves survival for breast cancer patients: A randomized clinical trial

Andersen et al., *Cancer* 113: 3450-3458, 2008
*(N = 227; Median Follow-up 11 years)*

Randomized Trials Showing Survival Benefit

<table>
<thead>
<tr>
<th>Study</th>
<th>Cancer</th>
<th>N</th>
<th>Psychological Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiegel et al, 1989</td>
<td>Metastatic Breast</td>
<td>86</td>
<td>Less distress, pain</td>
</tr>
<tr>
<td>Richardson et al, 1990</td>
<td>Lymphoma, leukemia</td>
<td>94</td>
<td>Better treatment adherence</td>
</tr>
<tr>
<td>Fawzy et al, 1993</td>
<td>Melanoma</td>
<td>66</td>
<td>Less distress, Better coping</td>
</tr>
<tr>
<td>Kuchler et al, 1999, 2007</td>
<td>GI cancers</td>
<td>271</td>
<td>Better stress management</td>
</tr>
<tr>
<td>McCorkle et al, 2000</td>
<td>Solid Tumors</td>
<td>375</td>
<td>Less distress</td>
</tr>
<tr>
<td>Andersen et al., 2008</td>
<td>Breast Cancer</td>
<td>227</td>
<td>Less distress</td>
</tr>
</tbody>
</table>
## Randomized Trials Showing No Survival Benefit

<table>
<thead>
<tr>
<th>Study</th>
<th>Cancer</th>
<th>N</th>
<th>Psychological Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linn et al. 1982</td>
<td>Lung, GI</td>
<td>120</td>
<td>Less depression, more self esteem, life satisfaction</td>
</tr>
<tr>
<td>Ilnyckyj et al., 1994</td>
<td>Breast</td>
<td>127</td>
<td>No benefit</td>
</tr>
<tr>
<td>Cunningham et al., 1996</td>
<td>Metastatic Breast</td>
<td>66</td>
<td>No benefit</td>
</tr>
<tr>
<td>Edelman et al., 1999</td>
<td>Metastatic Breast</td>
<td>121</td>
<td>No long-term benefit</td>
</tr>
<tr>
<td>Goodwin et al., 2001</td>
<td>Metastatic Breast</td>
<td>235</td>
<td>Less distress, depression</td>
</tr>
<tr>
<td>Kossare et al., 2004</td>
<td>Primary Breast</td>
<td>303</td>
<td>Less distress</td>
</tr>
</tbody>
</table>

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## Deaths and Mortality Rates from Specific Medical Conditions, by Practice Randomization Group Assignment and Stratified by Baseline Depression Status

Gallo, J. J. et al. 2007;146:689-698 Annals of Internal Medicine

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## Level of Social Integration and Age-Adjusted Mortality For Females In Five Prospective Studies

- Cross County (18+L) (Age: 55-59)
- Cross County (18+L) (Age: 60-69)
- Atlantic County (60+L) (Age: 55-59)
- Eastern Finland (60+L) (Age: 55-59)
- Eastern Finland (60+L) (Age: 60-69)
Purpose

We prospectively examined social ties and survival after breast cancer diagnosis.

Patients and Methods

Participants included 2,835 women from the Nurses’ Health Study who were diagnosed with stages 1 to 4 breast cancer between 1992 and 2002. Of these women, 224 deaths (107 of these related to breast cancer) accrued to the year 2004. Social networks were assessed in 1992, 1996, and 2000 with the Berkman-Syme Social Networks Index. Social support was assessed in 1992 and 2000 as the presence and availability of a confidant. Cox proportional hazards models were used in prospective analyses of social networks and support, both before and following diagnosis, and subsequent tumor.

Results

In multivariate-adjusted analyses, women who were socially isolated before diagnosis had a subsequent 66% increased risk of all-cause mortality (HR 1.66; 95% CI, 1.04 to 2.65) and a two-fold increased risk of breast cancer mortality (HR 2.14; 95% CI, 1.11 to 4.12) compared with women who were socially integrated. Women without close relatives (HR 2.65; 95% CI, 1.03 to 6.82), friends (HR 4.06; 95% CI, 1.40 to 11.75), or living children (HR 5.62; 95% CI, 1.20 to 26.46) had elevated risks of breast cancer mortality and of all-cause mortality compared with those with the most social ties. Neither participation in religious or community activities nor having a confidant was related to outcomes. Effect estimates were similar in analyses of postdiagnosis networks.

Conclusion

Socially isolated women had an elevated risk of mortality after a diagnosis of breast cancer, likely because of a lack of access to care, specifically beneficial caregiving from friends, relatives, and adult children.
Stress, the HPA and Breast Cancer

Altered Circadian Cortisol Rhythms in Depression and PTSD

Types of aberrations observed
Metastatic breast cancer patients with relatively flat cortisol slopes had shorter subsequent survival times (Cox Proportional Hazards $p < .005$)

Sephton et al., *Journal of the National Cancer Institute* 92:994-1000, 2000

Sleep and Survival

Hydrocortisone Down-Regulates the Tumor Suppressor Gene BRCA1 in Mammary Cells: A Possible Molecular Link Between Stress and Breast Cancer,

Lilia Antonova and Christopher R. Mueller
Conclusions

1. Who to treat?
   a) Depressed
   b) Traumatically Stressed/PTSD
   c) Survivorship
   d) Advanced Disease
Conclusions (cont’d.)

2. What is the outcome?
   a) Reductions in Depression
   b) Reductions in Intrusion
   c) Improvements in Health-Related Behavior
   d) Immune and Endocrine Function
   e) ? Survival Time

Where?

1. Oncology programs
2. Community programs – Wellness, Gilda’s Club, NCCN, Y-ME, etc.
3. Internet
4. Involve family/networks
5. Broaden intervention schemes
   a) Groups
   b) Education
   c) Family
   d) Peer navigation

How?

Key elements:
- Existential concerns—meaning making, post-traumatic growth, cognitive restructuring
- Affect
  - Reduce suppression/denial
  - Include and encourage
- Social support—enhance
- Health Behavior Change
How? (cont’d.)

Key elements:
• Active Coping
• Enhanced participation in medical care
• Communication skills
  • Health care professionals
  • Families
• Self Soothing—mindfulness, hypnosis, religious practice

Facing Cancer Survivorship

Face stressors rather than flee them
Alter perception of problems
Cope Actively
Express Emotion
Social Support

Sources of Survivorship Support

• NCI Cancer Information Service
  1-800-4-CANCER (1-800-422-6237)
  TTY 1-800-332-8615
• NCI Online
  http://cancer.gov
• American Cancer Society
  www.cancer.org
• CancerCare
  www.cancercare.org
• American Society of Clinical Oncology
  www.asco.org
Shakespeare on Commiserating

“When we our betters see bearing our woes, We scarcely think our miseries our foes
…the mind much sufferance doth overskip
When grief hath mates and bearing fellowship”

—Edgar, King Lear

Congratulations!

You have successfully completed the learning material for this module.

Thank you,
VJ Periyakoil, MD
Palliation Education Network

Thank You!

Please complete the post test to get the certificate.