Cancer-related distress among cancer patients and survivors –

Prevalence, risk factors and rehabilitation needs

NCRS 2010 – R. Zachariae

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Cancer-related distress

- As the number of cancer survivors increases due to continued improvements in cancer screening and treatment, the quality-of-life of cancer survivors becomes an important concern.

- Even after successful treatment, the psychological, social, existential, and physical well-being of cancer survivors is challenged by increased risk of depression, cancer-related distress, and fear of recurrence.
Prevalence?

- Considerable between-study variability in the prevalence of
  - Depression (0-2% to 55%)
  - Post-traumatic stress (PTSD) (0% to 32%)

Variability probably due to:
- Small samples of convenience
- Timing of assessment
- Other between- and within-study differences

Post-traumatic stress disorder (PTSD) in women treated for breast cancer

<table>
<thead>
<tr>
<th>Study</th>
<th>Year</th>
<th>N</th>
<th>Cross-sect.</th>
<th>Prospec.</th>
<th>Timing</th>
<th>Measure</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cordova et al.</td>
<td>1995</td>
<td>55</td>
<td>+</td>
<td></td>
<td>6 - 60 mo.</td>
<td>PCL-C, IES</td>
<td>11%</td>
</tr>
<tr>
<td>Hunter et al.</td>
<td>1996</td>
<td>60</td>
<td>+</td>
<td></td>
<td>0 - 7 mo.</td>
<td>IES &gt; 20</td>
<td>23%</td>
</tr>
<tr>
<td>Baider &amp; Kaplan DeNour</td>
<td>1997</td>
<td>283</td>
<td>+</td>
<td></td>
<td>During treatment</td>
<td>IES &gt; 25</td>
<td>33%</td>
</tr>
<tr>
<td>Eckhardt et al.</td>
<td>1998</td>
<td>64</td>
<td>+</td>
<td></td>
<td>1 - 18 mo.</td>
<td>PCL-C</td>
<td>6%</td>
</tr>
<tr>
<td>Green et al.</td>
<td>1998</td>
<td>160</td>
<td>+</td>
<td></td>
<td>4 - 12 mo.</td>
<td>DSM-IV, IES</td>
<td>5%</td>
</tr>
<tr>
<td>Tjemsland et al.</td>
<td>1998</td>
<td>106</td>
<td>+</td>
<td></td>
<td>6 w, 1 yr</td>
<td>IES &gt; 20, IES</td>
<td>14%, 10%</td>
</tr>
<tr>
<td>Jacobsen et al.</td>
<td>1998</td>
<td>43</td>
<td>+</td>
<td></td>
<td>2 - 62 mo.</td>
<td>PCL-C</td>
<td>12%</td>
</tr>
<tr>
<td>Andrykowski et al.</td>
<td>1998</td>
<td>82</td>
<td>+</td>
<td></td>
<td>6 - 72 mo.</td>
<td>PCL-C</td>
<td>6%</td>
</tr>
<tr>
<td>Wenzel et al.</td>
<td>1999</td>
<td>304</td>
<td>+</td>
<td></td>
<td>0 - 2 mo.</td>
<td>IES &gt; 20</td>
<td>18%</td>
</tr>
<tr>
<td>Mundy et al.</td>
<td>2000</td>
<td>17</td>
<td>+</td>
<td></td>
<td>&gt; 100 days</td>
<td>SCID</td>
<td>18%</td>
</tr>
<tr>
<td>Bleiker et al.</td>
<td>2000</td>
<td>170</td>
<td>+</td>
<td></td>
<td>2 mo, 2 yrs</td>
<td>IES subscales &gt; 20</td>
<td>15-16%, 16-8%</td>
</tr>
<tr>
<td>Cordova et al.</td>
<td>2000</td>
<td>142</td>
<td>+</td>
<td></td>
<td>2 - 62 mo.</td>
<td>PCL-C (2 methods)</td>
<td>9-13%</td>
</tr>
<tr>
<td>Andrykowski et al.</td>
<td>2000</td>
<td>46</td>
<td>+</td>
<td></td>
<td>3 - 60 mo, 12 mo.</td>
<td>DSM-IV</td>
<td>11%, 7%</td>
</tr>
<tr>
<td>Naidich &amp; Motta</td>
<td>2000</td>
<td>31</td>
<td>+</td>
<td></td>
<td>Mean 16 mo.</td>
<td>DSM-IV</td>
<td>32%</td>
</tr>
<tr>
<td>Koopman et al.</td>
<td>2001</td>
<td>100</td>
<td>+</td>
<td></td>
<td>0 - 6 mo.</td>
<td>PCL-S</td>
<td>4%</td>
</tr>
<tr>
<td>Pitman et al.</td>
<td>2001</td>
<td>37</td>
<td>+</td>
<td></td>
<td>2 yrs</td>
<td>PCL-C</td>
<td>14%</td>
</tr>
<tr>
<td>Koopman et al.</td>
<td>2002</td>
<td>117</td>
<td>+</td>
<td></td>
<td>0 - 12 mo., 6 mo.</td>
<td>IES subscales &gt; 20</td>
<td>12-26%, 15-22%</td>
</tr>
<tr>
<td>Matsuoka et al.</td>
<td>2002</td>
<td>74</td>
<td>+</td>
<td></td>
<td>&gt; 3 yrs</td>
<td>SCID, IES</td>
<td>0-3%</td>
</tr>
<tr>
<td>Amir &amp; Ramati</td>
<td>2002</td>
<td>39</td>
<td>+</td>
<td></td>
<td>&gt; 5 yrs</td>
<td>DSM-IV</td>
<td>18%</td>
</tr>
<tr>
<td>Kornblith et al.</td>
<td>2003</td>
<td>153</td>
<td>+</td>
<td></td>
<td>15-23 yrs</td>
<td>PCL-C</td>
<td>15%</td>
</tr>
<tr>
<td>Luecken et al.</td>
<td>2004</td>
<td>71</td>
<td>+</td>
<td></td>
<td>0 - 6 mo.</td>
<td>SCID</td>
<td>6%</td>
</tr>
<tr>
<td>Palmer et al.</td>
<td>2004</td>
<td>115</td>
<td>+</td>
<td></td>
<td>During treatment</td>
<td>SCID, IES</td>
<td>4-38%</td>
</tr>
<tr>
<td>Levine et al.</td>
<td>2005</td>
<td>181</td>
<td>+</td>
<td></td>
<td>0-18 mo.</td>
<td>PCL-C</td>
<td>14%</td>
</tr>
<tr>
<td>Okamura et al.</td>
<td>2005</td>
<td>50</td>
<td>+</td>
<td></td>
<td>At diagnosis</td>
<td>SCID</td>
<td>2%</td>
</tr>
</tbody>
</table>

IES (Impact of Events Scale); PCL-C (PTSD Check List – Civilian); SCID (Structured Clinical Interview for DSM disorders); DSM-IV (other type of DSM-based diagnostic)
Depression and post-traumatic stress. Data from a nationwide cohort of 3343 Danish women treated for primary breast cancer 3-4 and 15-16 mo. after surgery

<table>
<thead>
<tr>
<th></th>
<th>Breast cancer 3-4 mo.</th>
<th>Breast cancer 15-16 mo.</th>
<th>Healthy women</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>3343</td>
<td>3056</td>
<td>379</td>
</tr>
<tr>
<td>BDI * Mean (SD)</td>
<td>8.8 (7.4)</td>
<td>7.6 (7.5)</td>
<td>7.6 (8.3)</td>
</tr>
<tr>
<td>Depressed * (Mild to Major)</td>
<td>20.6%</td>
<td>17.7%</td>
<td>17.2%</td>
</tr>
<tr>
<td>Major Depression *</td>
<td>13.7%</td>
<td>12.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Severe post-traumatic stress ***</td>
<td>20.1%</td>
<td>14.4%</td>
<td>_</td>
</tr>
</tbody>
</table>

*) Christensen et al. 2009; **) O´Connor et al. (submitted)
***) EIS-C Total > 35 Horowitz, 1982; Wohlfarth et al. 2003
Who is at risk?

- Premorbid and clinical predictors
  - Depression:
    - Independent predictors: Low socio-economic status, ethnicity, comorbidity, psychiatric history, increased cancer severity (nodal status), BMI, smoking, alcohol, and reduced physical functioning
  - Post-traumatic stress symptoms:
    - Independent predictors: Low socio-economic status, comorbidity, psychiatric history, increased cancer severity (nodal status), and reduced physical functioning

- The individuals at risk may be less likely to seek and receive psychosocial support

Christensen et al. 2009; O’Connor et al. (submitted)
Who receives support?

- Women with moderate-severe depression at 3 months after surgery
  - **53.9%**: Any type/amount of psychosocial support
  - **36.2%**: Any type/amount of medical treatment

- Women with severe post-traumatic cancer-related stress at 3 months after surgery
  - **39.1%**: Any type/amount of psychosocial support
  - **23.3%**: Any type/amount of medical treatment
Who is less likely to receive psychosocial support?

- Among depressed:
  - High BMI, smoker, alcohol, comorbidity, difficulties describing feelings

- Among women with severe post-traumatic cancer-related stress:
  - Poor physical function, high BMI, smoker, comorbidity, difficulties describing feelings
Conclusion

Women with primary breast cancer:

- High prevalence of depression and post-traumatic stress at 3-4 and 15-16 months after surgery
- Important risk factors are premorbid factors, e.g. low socioeconomic status and psychiatric and physical comorbidity
- Less than half of those in need had not received any type of psychosocial or medical help
- Those at high risk may also be those less likely to seek or receive support
Factors of relevance to cancer-related distress over the course of pre-diagnosis, diagnosis, treatment, and survival

**Pre-diagnosis**
- Risk of cancer
- Fear of cancer
- Surveillance
- Prevention

**Diagnosis**
- Testing
- Waiting
- Fear of cancer

**Treatment**
- Surgery
- Adjuv. treatm.
- Testing
- Side-effects
- Body-image

**Survival**
- Fear of recurrence
- Disability
- Post-traumatic stress

**Premorbid risk factors**: Lack of socioeconomic resources, comorbidity, psychiatric history

**Social stressors**: Stigmatization, discrimination, social isolation

Elaborated from: Baum & Posluszny, 1999
Future tasks

- Limited resources in health care
- To maximize cost-effectiveness, we need:
  - Reliable estimates of prevalence of cancer-related distress among all types of cancer
  - To reliably identify patients at high risk for developing long-term cancer-related distress
  - To develop cost-effective, targeted preventive interventions and rehabilitation procedures
  - Large, methodologically sound, prospective cohorts

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