Web-based interventions for patient empowerment and physical activity in chronic diseases

Relevance for cancer survivors

Wilma Kuijpers, MSc.
Increasing number of cancer survivors

- Cancer survivors
  - chronic condition

- Patient empowerment\(^1\)
  - Knowledge
  - Skills
  - Motivation

- Physical activity\(^2\)

1 Aujoulat et al. Patient Educ Couns 2007
2 Fong et al. BMJ 2012
Internet – a promising medium

- Easily accessible, personal information

- Interactivity
  3. Neuhauser & Kreps. Social Semiotics 2010

→ Mainly for chronic diseases other than cancer
Aim of this study

To inform the development of an interactive, web-based intervention for cancer survivors
Systematic literature review

- Search: Pubmed, Embase and Scopus

- Eligibility criteria
  - cardiovascular disease, COPD, diabetes, heart failure
  - interactive, web-based interventions

- Data extraction
  - characteristics
  - outcomes

- Relevance for cancer survivors
Relevance for cancer survivors

- Based on recommendations for cancer survivorship care (Institute of Medicine¹)
  - Long-term follow-up/surveillance
  - Management of (late) effects
  - Rehabilitation
  - Psychosocial support
  - Health promotion

¹ Hewitt et al. From cancer patient to cancer survivor: Lost in transition 2006
17 papers included (16 unique RCTs)

- **Intervention characteristics**
  - Duration: $M = 23$ weeks (4 – 52)
  - Frequency: Often unspecified

- **Intervention outcomes**
  - Patient empowerment: 11 studies
  - Physical activity: 13 studies
Common intervention elements

- Education
- Self-monitoring
- Communication with health care providers
- Feedback/tailored information
- Communication with patients
- Self-management
- Personal exercise program

Percentage of interventions
## Relevance for cancer survivors

### Component of web-based intervention

<table>
<thead>
<tr>
<th>Essential components of survivorship care</th>
<th>Education</th>
<th>Self-monitoring</th>
<th>Feedback/Tailored information</th>
<th>Self-management training</th>
<th>Personal exercise program</th>
<th>Communication with health care provider</th>
<th>Communication with fellow survivors</th>
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<tbody>
<tr>
<td>Long-term follow-up / surveillance</td>
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<td>Management of (late) effects</td>
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<td>Health promotion</td>
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</table>

**Background**

**Methods**

**Results**

**Discussion**

**Conclusion**
**Health promotion – physical activity**

<table>
<thead>
<tr>
<th>Education</th>
<th>Information about the importance of and ways to obtain a physically active lifestyle</th>
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<tbody>
<tr>
<td>Self-monitoring</td>
<td>Upload of exercise behavior</td>
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<td>Feedback/tailored information</td>
<td>Advice based on uploaded data</td>
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<td>Self-management training</td>
<td>Training aimed at obtaining and sustaining a physically active lifestyle</td>
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<td>Personal exercise program</td>
<td>Individual exercise advice, taking into account a survivor's specific needs, preferences and possibilities</td>
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<td>Communication with health care provider</td>
<td>Possibility to ask questions about exercise advice</td>
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<tr>
<td>Communication with fellow patients</td>
<td>Share experiences and tips about being physically active, provide support</td>
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Points of attention

- Role of intervention elements unclear
- Duration and frequency
- Studies with cancer survivors needed
Conclusion

- Interactive, web-based interventions are beneficial for individuals with chronic conditions

- It seems reasonable to ‘translate’ these interventions to cancer survivors, in order to promote patient empowerment and physical activity
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