Opinion and practices of health professionals on physical activity promotion in cancer patients

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Cancer and physical activity

• PA: many beneficial effects on cancer patients and survivors (Bourke et al., 2016; Cramer et al., 2014; Fong et al., 2012; Gerritsen & Vincent, 2016; Granger et al., 2011; Mishra et al., 2014; Zhu et al., 2016)

➢ **Body composition**

➢ **Physical function**: cardiovascular fitness, muscular strength

➢ **Psychological effects**: depression, anxiety

➢ **Quality of life**: fatigue, social function

➢ **Mortality** (Schmid & Leitzmann, 2014)
Cancer and physical activity

• PA level decreases after diagnosis and few cancer patients are active (Hair et al., 2014; Rock et al., 2012)

• Many barriers: physical, psychological, social and environmental (Blaney et al., 2013)

• Important to encourage patients to be physically active
Many patients would like to receive advice about PA from a physician, in a cancer care center (Philip et al., 2014)

Oncologists’ exercise recommendation may increase exercise participation (Jones et al., 2004; Park et al., 2015)

Many patients don’t receive advice about PA from their physicians (Kenzik et al., 2016; Spellman et al., 2014)
Health professionals and PA promotion

• Barriers to PA promotion:

  – Lack of time, resources and success (McKenna et al., 1998)
  – Lack of motivation and interest (Spellman et al., 2014)
  – Lack of education and infrastructure (Börjesson, 2013)
Purpose

• Analyzing health professionals’ knowledge and opinion about PA for cancer patients

• Examining practices, barriers and roles that they identify when considering PA promotion in their patients

• Determining factors that may enhance practices in this field
Methods
Collecting tools

Phase 1: qualitative approach

- Semi-structured interviews
- 12 health professionals (HPs)
- From 1 cancer care center
- Oncologists (2), radiotherapists (2), nurses (4), physiotherapist (1), psychotherapist (1), dietitian (1) and general practitioner (1)
Collecting tools

Phase 2: quantitative approach

- Online questionnaire
- Based on phase 1 and literature
- 68 HPs
- From different hospitals or care centers
Results
Beneficial effects of PA

Qualitative phase (n=12)

<table>
<thead>
<tr>
<th>Benefits</th>
<th>n (/12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical function</td>
<td>11</td>
</tr>
<tr>
<td>Emotional well-being</td>
<td>8</td>
</tr>
<tr>
<td>QoL</td>
<td>4</td>
</tr>
<tr>
<td>Social function</td>
<td>4</td>
</tr>
</tbody>
</table>

- Muscular strength (n=6)
- Fatigue (n=5)

Quantitative phase (n=68)

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Score (/5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QoL</td>
<td>4.38 ± 0.69</td>
</tr>
<tr>
<td>Recovery</td>
<td>4.29 ± 0.88</td>
</tr>
<tr>
<td>Muscular strength</td>
<td>4.22 ± 0.79</td>
</tr>
<tr>
<td>Autonomy</td>
<td>4.09 ± 1</td>
</tr>
</tbody>
</table>

Mean score benefits = 3.65/5
Mean score risks = 1.5/5

= Jones et al., 2005
Knowledge of AP guidelines

Qualitative phase (n=12)

- No idea (n=5)
- Wrong or incomplete answer (n=8)

= Spellman et al., 2014

Quantitative phase (n=68)

- 18-64 yo: 25% correct answers
- 65 yo and +: 10.3% correct answers
- Large majority of HPs thinks that AP level should not be reduced after diagnosis

= Spellman et al., 2014
Frequency of interventions to promote PA in patients

Qualitative phase (n=12)

- With each patients (n=4)
- Rarely (n=4)
- No idea (n=4)

= Spellman et al., 2014

Quantitative phase (n=62)

- On average, with 7.11 ± 2.61 patients out of 10

≠ Jones et al., 2005

Higher frequency of intervention is associated with:
- Higher score in perceived importance of personal role in PA promotion (p=0.006)
- Lower perceived risks of PA (p=0.032)
Type of interventions to promote PA in patients

### Background and purpose

### Methods

#### Qualitative phase (n=12)
- Verbal advice +++ (n=12)
- Brochures, posters, etc...

#### Quantitative phase (n=62)

<table>
<thead>
<tr>
<th>Interventions</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal advice</td>
<td>72.6</td>
</tr>
<tr>
<td>Participation in events</td>
<td>37.1</td>
</tr>
<tr>
<td>Brochures</td>
<td>32.3</td>
</tr>
<tr>
<td>Posters</td>
<td>29</td>
</tr>
</tbody>
</table>

= Spellman et al., 2014
Perceived role in PA promotion

Qualitative phase (n=12)

Who has to promote PA?

- All HPs (n=11)
- Need for a specific job (counselor) (n=1)

Quantitative phase (n=62)

Who has to promote PA?

<table>
<thead>
<tr>
<th>Professions</th>
<th>Score (/5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiotherapist</td>
<td>4.77 ± 0.46</td>
</tr>
<tr>
<td>Oncologist</td>
<td>4.4 ± 0.88</td>
</tr>
<tr>
<td>General practitioner</td>
<td>4.39 ± 0.93</td>
</tr>
<tr>
<td>Nurse</td>
<td>4.06 ± 1.05</td>
</tr>
</tbody>
</table>

Perceived importance of personal role on a 0-10 scale: 7.73 ± 2.09

= Tulloch et al., 2006
= Philip et al., 2014
≠ Spellman et al., 2014

Rompen et al. - AIESEP 2019
### Background and purpose

### Methods

### Results

#### Barriers to PA promotion

**Qualitative phase (n=12)**

<table>
<thead>
<tr>
<th>Barriers</th>
<th>n (/12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of time</td>
<td>6</td>
</tr>
<tr>
<td>Lack of knowledge</td>
<td>4</td>
</tr>
<tr>
<td>Patient’s state</td>
<td>3</td>
</tr>
<tr>
<td>Not my job</td>
<td>2</td>
</tr>
</tbody>
</table>

**Quantitative phase (n=62)**

<table>
<thead>
<tr>
<th>Barriers</th>
<th>% of respondants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient’s state</td>
<td>75.8</td>
</tr>
<tr>
<td>Lack of knowledge</td>
<td>29</td>
</tr>
<tr>
<td>Not a priority</td>
<td>25.8</td>
</tr>
<tr>
<td>None</td>
<td>21</td>
</tr>
</tbody>
</table>

= Spellman et al., 2014
= McKenna et al., 1998
= Börjesson, 2013
Suggestions of actions and good practices

Qualitative phase (n=12)

<table>
<thead>
<tr>
<th>Suggestions</th>
<th>n (/12)</th>
</tr>
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<tbody>
<tr>
<td>Information campaign</td>
<td>7</td>
</tr>
<tr>
<td>Infrastructures development</td>
<td>5</td>
</tr>
<tr>
<td>Group PA development</td>
<td>4</td>
</tr>
<tr>
<td>Communication improvement</td>
<td>3</td>
</tr>
</tbody>
</table>

Quantitative phase (n=62)

<table>
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<tr>
<th>Suggestions</th>
<th>% of respondent</th>
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</thead>
<tbody>
<tr>
<td>Verbal advice</td>
<td>95.2</td>
</tr>
<tr>
<td>Information campaign</td>
<td>87.1</td>
</tr>
<tr>
<td>Group PA development</td>
<td>77.4</td>
</tr>
<tr>
<td>Infrastructures development</td>
<td>77.4</td>
</tr>
</tbody>
</table>

Posters, brochures, videos, etc...
Conclusions and implications
• Positive HPs’ attitudes about PA and their role in PA promotion
• All categories of HPs seem concerned and should be involved

**But:** imprecise knowledge about PA

**And:** lack of knowledge is an important barrier to PA promotion

Need for HPs education

• Many barriers (TIME) and inconstant frequency of interventions
• Verbal advice by far the most frequent intervention

HPs made suggestions of practices to enhance PA promotion in cancer patients

Help them to successfully refer patients to exercise specialists and exercise programs
References:

References:


