Breast Cancer Knowledge in Self-Help Groups

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2. Research Questions
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Introduction

Shared Decision Making

Patients’ Competence
Schulte 2006, Goldmann-Posch 2008

Compliance
Bickell et al. 2009, Mills et al. 1999

Empowerment
Gaisser 2006, Schulte 2006

Health-promoting behaviour
Bickell et al. 2009, Mills et al. 1999

Knowledge

Coping strategies
Quality of life
Alt 2006
Introduction

Lack of Knowledge

Surgery
Cosmetic supplies
Aftercare
Side effects
Prevention of Lymph edema

Insufficient information in the Medical system
Fear & resistance of patients
Reservation towards self-help groups

Bosompra et al. 2002
Gaisser 2006
Burg et al. 2009

Gaisser 2006
Engelhardt et al. 2008
Robert-Koch-Institut 2004
Research Questions

(1) How much do members of self-help groups know about breast cancer and its treatment in comparison to non-members? (Kuehner et al. 2006)

(2) How much do leaders of self-help groups know about breast cancer compared to group members or women who do not participate in a support group?

(3) Which other factors, apart from involvement in a support group, may explain the knowledge differences between women with respect to breast cancer?

(4) In how far does the amount of knowledge have an effect on health promoting behaviour?
Study population

Sample (→ N=727) from 3 surveys

• **Survey A (N=216 patients)**
  November 2004 bis February 2005
  location: Hannover Medical School, University of Rostock and self-help groups in Hannover and surroundings

• **Survey B (N=390 leaders of self-help groups)**
  August 2005
  location: annual conference of the *German Federal Self-Help Organisation for Women with Cancer*

• **Survey C (N=121 patients)**
  February 2008 to July 2009
  location: Hannover Medical School: longitudinal study on the role of social & psychological factors in the progression of breast cancer
Survey Instrument

Questionnaire on breast cancer knowledge

- Personal data/ Main sources of information
- General information on breast cancer (8 Items)
- Examination of the breast (12)
- Lymph oedema (21)
- Side effects of treatment (7)
- Nutrition (7)
Sample

<table>
<thead>
<tr>
<th>Survey</th>
<th>A: Nov 09-Jan 05</th>
<th>B: Aug 05</th>
<th>C: Feb 08-Jul 09</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subgroups</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Non-Members</td>
<td>121</td>
<td>56,0</td>
<td></td>
<td>112</td>
</tr>
<tr>
<td>Members</td>
<td>95</td>
<td>44,0</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Leaders</td>
<td>390</td>
<td>100,0</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Sum</td>
<td>216</td>
<td>100,0</td>
<td></td>
<td>390</td>
</tr>
</tbody>
</table>
Age of Respondents

The image depicts a box plot comparing the age of respondents in three different study groups: Non-Members, Members, and Leaders. The box plot shows the distribution of ages in each group, with the central line indicating the median age, the box representing the interquartile range, and the whiskers showing the range of data points. The ages are measured in years, with values ranging from approximately 30 to 80 years.
Duration of illness

- Non-Members
- Members
- Leaders

Study Group

Duration of illness in years

0 100 200 300 400 500

414 474 506

608 627 686

430
Results
# Main Sources of Information

<table>
<thead>
<tr>
<th>Source</th>
<th>Non-Members</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Specialist</td>
<td>176</td>
<td>75.5</td>
<td>75</td>
<td>72.8</td>
</tr>
<tr>
<td>Print Media</td>
<td>157</td>
<td>67.4</td>
<td>59</td>
<td>57.3</td>
</tr>
<tr>
<td>Internet*</td>
<td>55</td>
<td>23.6</td>
<td>22</td>
<td>21.4</td>
</tr>
<tr>
<td>TV</td>
<td>51</td>
<td>21.9</td>
<td>12</td>
<td>11.7</td>
</tr>
<tr>
<td>Family doctor</td>
<td>49</td>
<td>21.0</td>
<td>14</td>
<td>13.6</td>
</tr>
<tr>
<td>Other women affected/Support Groups</td>
<td>33</td>
<td>14.2</td>
<td>86</td>
<td>83.5</td>
</tr>
<tr>
<td>Other</td>
<td>16</td>
<td>6.9</td>
<td>6</td>
<td>5.8</td>
</tr>
<tr>
<td>Nursing Staff</td>
<td>6</td>
<td>2.6</td>
<td>2</td>
<td>1.9</td>
</tr>
</tbody>
</table>

* Significant age differences emerged: Users = 6 years younger
# Breast Cancer Knowledge

## Total scores according to study groups

<table>
<thead>
<tr>
<th>Group</th>
<th>%</th>
<th>M</th>
<th>SD</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Members</td>
<td>72,7</td>
<td>40,0</td>
<td>7,32</td>
<td></td>
</tr>
<tr>
<td>Members</td>
<td>76,7</td>
<td>42,2</td>
<td>7,53</td>
<td></td>
</tr>
<tr>
<td>Leaders¹</td>
<td>82,6</td>
<td>45,4</td>
<td>6,98</td>
<td></td>
</tr>
<tr>
<td>Obtainable score</td>
<td>55,0</td>
<td></td>
<td></td>
<td>43,38**</td>
</tr>
</tbody>
</table>

¹ Leaders differed highly significantly from the other two groups in the multiple comparison, members and non-members differed significantly.
## Breast Cancer Knowledge

### Factors influencing breast cancer knowledge

<table>
<thead>
<tr>
<th></th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members</td>
<td>0.103***</td>
</tr>
<tr>
<td>Leaders</td>
<td>0.392***</td>
</tr>
<tr>
<td>Age of Respondents in Years</td>
<td>-0.218***</td>
</tr>
<tr>
<td>10 Years of schooling</td>
<td>0.148***</td>
</tr>
<tr>
<td>High School Level</td>
<td>0.187***</td>
</tr>
<tr>
<td>Duration of illness</td>
<td>0.019</td>
</tr>
</tbody>
</table>

$^1$ Corrected R-Square = 0.20
Breast Cancer Knowledge

Knowledge scores (mean rank differences) for different dimensions over study groups

- General Information
- Examination
- Lymphoedema
- Side effects
- Nutrition

Legend:
- Non-Members
- Members
- Leaders

Significance:
- *: p < 0.05
- **: p < 0.01
### Factors influencing the knowledge on lymph oedema¹

<table>
<thead>
<tr>
<th>Factor</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members</td>
<td>0.147***</td>
</tr>
<tr>
<td>Leaders</td>
<td>0.329***</td>
</tr>
<tr>
<td>Age of respondents in years</td>
<td>-0.210***</td>
</tr>
<tr>
<td>10 years of schooling</td>
<td>0.139***</td>
</tr>
<tr>
<td>High school level</td>
<td>0.086*</td>
</tr>
<tr>
<td>Duration of illness</td>
<td>0.035</td>
</tr>
<tr>
<td>Suffered from lymph oedema</td>
<td>0.170***</td>
</tr>
</tbody>
</table>

¹ Corrected R-Square = 0.20
Health-promoting behaviour

In how far does the amount of knowledge have an effect on health-promoting behaviour? (N=193)

➔ No significant correlation between total knowledge score and behaviour beneficial to health

➔ Slight correlation between knowledge on diet and eating habits but not significant

➔ Slight correlation between age and behavior (r = 0.184)
Conclusion

- Leaders of support groups knew more than the other two groups
- Members knew more on two subtests – breast examination and lymph-oedema
- Given the knowledge potential of self-help groups, the option of joining a self-help group should be encouraged among breast cancer patients
- Effects of knowledge onto health beneficial behaviour could not be confirmed
Thank you very much for your attention!