What health promotion specific structures and capacities in HPH hospitals do effectively support the implementation of health promotion?

Results from PRICES-HPH
“Project on an internationally comparative evaluation study on HPH”

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Overview

- Background & PRICES-HPH evaluation model
- Key characteristics of the PRICES-HPH hospital study
- Method
- Results for following research questions:
  - What specific organizational HP capacities / structures support the implementation of health promotion activities in HPH hospitals?
  - Is the effect of organizational HP capacities / structures additive?
  - What specific health promotion activities in HPH hospitals could be supported most effectively by these organizational HP capacities / structures?
- Summary of results & Conclusions
Background & PRICES-HPH evaluation model
Background

“A Health Promoting Hospital and Health Service (HPH) is understood as an organisation that aims to improve health gain for its stakeholders by developing structures, cultures, decisions and processes. HPH is focused primarily on patients and their relatives, with a specific focus on the needs of vulnerable groups, hospital staff, the community population and – last but not least – the environment.”

(The International Network of Health Promoting Hospitals and Health Services: Integrating health promotion into hospitals and health services, WHO 2007)

Health gain, as outcome could not be reached directly ...

- Avedis Donabedian’s "structure-process-outcomes" model
- Capacity building approaches: organizational structures, resources, culture and commitment have an important impact on implementation and effectiveness of health promotion (Woodard 2004)
- Outcome models for health promotion (Nutbeam 2000, Spencer et al. 2007)

PRICES-HPH evaluation model
"PRICES-HPH evaluation model"

1. HPH network structures
   Building capacities for supporting activities for development of HP hospitals

2. HPH network processes / activities:
   Implementing strategies for HP capacity building in HP hospitals & in their relevant environments

3. HPH network intermediate outcomes I:
   HP hospital HP structures:
   Building capacities for HP activities

4. HPH network intermediate outcomes II:
   HP hospital HP processes / activities:
   Implementing HPH strategies & standards

5. HPH network ultimate outcomes:
   HP hospital HP outcomes:
   Improved health gain of ...

HPH national / regional Network
Structures and resources for management, coordination and activities

- NW-STRAT 1: Supporting organizational development of HP hospitals by offering tools and consultations
- NW-STRAT 2: Supporting personnel development in HP hospitals by offering tools and training
- NW-STRAT 3: Supporting HP capacity building by lobbying & alliance-building
- NW-STRAT 4: Supporting HP (public) awareness by campaigning

HPH member Hospital
Hospital structures and resources for HP activities
Trained and motivated hospital staff for HP

- HOS-STRAT 1: Empowerment for health promoting self-reproduction
- HOS-STRAT 2: Empowerment for health promoting coproduction
- HOS-STRAT 3: Developing a health promoting hospital setting
- HOS-STRAT 4: Empowerment by illness management
- HOS-STRAT 5: Empowerment by lifestyle development
- HOS-STRAT 6: Participation in health promoting community development

Network Survey

Hospital Survey

Patients

Staff

Community
Hypothesis:
Hospital with specific HP structures / capacities are more successfully by implementation of health promotion activities
Key characteristics of the PRICES-HPH hospital study
### Key characteristics of the PRICES-HPH hospital study

|                  |  
|------------------|-------------------|
| **Survey period**| 10, 2009 – 03, 2010 |
| **Method**       | Online -questionnaire (110 questions) |
| **Total population** (the time the survey was conducted) | 35 Networks (768 Hospitals) |
| **Participants** | 29 Networks with 529 member hospitals |
| **Response rate**| 34% (180 hospitals) |
| **Presented data** | 159 “Acute” hospitals (from 25 NW) |
Method
“PRICES-HPH evaluation model”

1. HPH network structures
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- Network Survey
- Hospital Survey

HPH national/regional Network
Structures and resources for management, coordination and activities

NW-STRAT 1
Supporting organizational development of HP hospitals by offering strategies & consultations

NW-STRAT 2
Supporting personnel development in HP hospitals by offering tools and trainings

NW-STRAT 3
Supporting HP capacity building by lobbying & alliance-building

NW-STRAT 4
Supporting HP (public) awareness by campaigning

HPH member
Hospital structures and resources for HP activities

Independent variables

HOS-STRAT 1
Empowerment for health promoting self-production

HOS-STRAT 2
Empowerment for health promoting hospital setting

HOS-STRAT 3
Developing health promoting hospital setting

HOS-STRAT 4
Empowerment by lifestyle development

HOS-STRAT 5
Participation in health promoting community development

Dependent variables

Patients

Staff

Community
Variables used for testing the research question

**Independent variables**

**HP structures of hospitals**

1. 17 report-questions in 7 fields*:
   1. HPH hospital coordinator
   2. HP personal structures
   3. HP policies / standards
   4. HP financial resources
   5. HP quality assessment
   6. HP outcome monitoring
   7. Cooperation's for HP

* Categories for structures are: “yes / no” respectively “few / many”

**HP activities of hospitals**

1. Indices **patient-orientated strategies**
   (27 items, 8 dimensions*)
2. Indices **staff-orientated strategies**
   (20 items, 6 dimension*)
3. Indices **community-orientated strategies**
   (20 items, 6 dimension*)

Testing of mean differences of HP activities (t-test, variance analysis)

* Items (per strategies) were tested for reliability (Cronbach’s Alpha ≥0.7)

> building of dimensions (include 67 selected items of original 105 items)
What specific organizational HP capacities / structures support the implementation of health promotion activities in HPH hospitals?
Empirically relevant HP capacities for the implementation of HP strategies (activities) in HPH member hospitals (n=159)

<table>
<thead>
<tr>
<th>Relevant HP capacity in hospitals</th>
<th>Difference of means of implemented HP strategies in % (for hospital groups with and without this capacity)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Patient-</td>
</tr>
<tr>
<td></td>
<td>orientated</td>
</tr>
<tr>
<td>1) Specific HPH coordinators’ functions</td>
<td>6.2%</td>
</tr>
<tr>
<td>2) Specific HP personnel and structures</td>
<td>11.0%</td>
</tr>
<tr>
<td>3) Degree of written HP policies / strategies</td>
<td>16.9%</td>
</tr>
<tr>
<td>4) Specific financial sources for HP</td>
<td>11.3%</td>
</tr>
<tr>
<td>5) HP quality assessment in place</td>
<td>9.0%</td>
</tr>
<tr>
<td>6) Specific monitoring of HP-Indicators</td>
<td>11.5%</td>
</tr>
<tr>
<td>7) Specific strategic cooperation's for HP</td>
<td>9.8%</td>
</tr>
<tr>
<td>Mean of differences</td>
<td>10.8%</td>
</tr>
</tbody>
</table>
Characteristics of relevant organizational HP capacity: What makes the difference?

<table>
<thead>
<tr>
<th>Relevant HP capacity</th>
<th>Characteristic of the capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Patient</td>
</tr>
<tr>
<td>1) HPH coordinators’ functions</td>
<td>Responsible for planning, coordinating and evaluating HP activities</td>
</tr>
<tr>
<td>2) HP personnel and structures</td>
<td>Minimum of at least one specific personal structure for HP (HP unit, team, steering committee or working group)</td>
</tr>
<tr>
<td>3) Written HP policies</td>
<td>(Many) written policies for specific HP issues and activities</td>
</tr>
<tr>
<td>4) Specific financial source for HP</td>
<td>Minimum of at least one specific financial source for HP (e.g. internal HP budget, funding by government or health insurances)</td>
</tr>
<tr>
<td>5) HP quality assessment</td>
<td>HP quality assessment is in place (e.g. 5 HPH-Standards, national indicators/standards)</td>
</tr>
<tr>
<td>6) Monitoring of HP-Indicator</td>
<td>Patients need for HP Outcomes of HP activities</td>
</tr>
<tr>
<td>7) Strategic cooperation's for HP</td>
<td>Patient organisations Research centers</td>
</tr>
</tbody>
</table>
Is the effect of organizational HP capacities / structures additive?
Correlation between HP capacities and implemented HP strategies in HPH member hospitals (n=159)

patient-orientated strategies: $R^2 = .328$

fully 10

9

8

7

6

5

4

3

2

1

not at all 0

HP strategies of hospital (index)

HP capacities of hospital (score)

= single hospital
Correlation between HP capacities and implemented HP strategies in HPH member hospitals (n=159)

patient-orientated strategies: $R^2 = .328$

community-orientated strategies: $R^2 = .336$

staff-orientated strategies: $R^2 = .370$
What specific health promotion activities in HPH hospitals could be supported most effectively by these organizational HP capacities / structures?
Correlation between HP capacities and specific HP strategies for patients in HPH member hospitals (n=159)

**HP strategy / activity for patients**

<table>
<thead>
<tr>
<th>Activity</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff is informed about / trained for HP for patients</td>
<td>.281</td>
</tr>
<tr>
<td>Supporting health promoting lifestyle development for patient</td>
<td>.231</td>
</tr>
<tr>
<td>Supporting self-management of specific diseases of patients</td>
<td>.212</td>
</tr>
<tr>
<td>Patient-friendly living conditions and supporting offers in the hospital</td>
<td>.209</td>
</tr>
<tr>
<td>Information and participation of patients in treatment</td>
<td>.191</td>
</tr>
<tr>
<td>Patient safety</td>
<td>.164</td>
</tr>
<tr>
<td>Patients supported by discharge</td>
<td>.151</td>
</tr>
</tbody>
</table>
Correlation between HP capacities and specific HP strategies for staff in HPH member hospitals (n=159)

<table>
<thead>
<tr>
<th>HP strategy / activity for staff</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff is informed about / involved in workplace HP development</td>
<td>.328</td>
</tr>
<tr>
<td>Hospital supports healthy (sport) activities of staff in the community</td>
<td>.305</td>
</tr>
<tr>
<td>Supporting health promoting lifestyle development for staff</td>
<td>.286</td>
</tr>
<tr>
<td>Developing executive competencies and communication between staff</td>
<td>.243</td>
</tr>
<tr>
<td>Health education and training for staff to prevent occupational disease</td>
<td>.230</td>
</tr>
<tr>
<td>Safety at Workplace</td>
<td>.070</td>
</tr>
</tbody>
</table>
Correlation between HP capacities and specific HP strategies for the community by HPH member hospitals (n=159)

<table>
<thead>
<tr>
<th>HP strategy / activity for staff</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing health promoting living conditions in the community</td>
<td>.277</td>
</tr>
<tr>
<td>Supporting self-management of specific diseases in the community</td>
<td>.236</td>
</tr>
<tr>
<td>Supporting health promoting lifestyle development in the community</td>
<td>.224</td>
</tr>
<tr>
<td>Cooperation’s with services in the region (continuity of care)</td>
<td>.181</td>
</tr>
<tr>
<td>Information about admission (access) for patients / healthcare providers</td>
<td>.156</td>
</tr>
<tr>
<td>Environmental-friendly hospital (reducing consumption, waste, emission)</td>
<td>.126</td>
</tr>
</tbody>
</table>
Summary of Results
Summary of Results

- 7 different HP capacities, when institutionalized in HPH hospitals, have significant effects on extent of implementation of HP strategies/activities

- Capacities support most effectively...
  - Empowerment for illness and lifestyle development for patients and people in the community
  - (Co-)Development of health promoting living conditions in the community
  - Staff competencies for the implementation of HP
  - All staff-related HP strategies except safety at workplace

- Effects of capacities are additive, the more capacities, the more implemented strategies on average
Conclusions
Conclusions

- It is not just a belief, but there is empirical evidence for the effectiveness of HP capacity building to support implementation of HPH strategies, or there is a proven role for HP capacity building in HPH.

- Therefore, it can be recommended to HPH hospitals, to invest in these effective measures of HP capacity building.

- By that HPH will better fulfill its mission - to improve health gain for its stakeholders patients, staff, community and environment!
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