Who benefits from school doctors’ health checks: a pilot for a multicentre study in Finland

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No conflicts of interest
Primary school grades 1-6
School nurses’ screening in Finland

- All pupils annually

Photo credit: author’s own, 2015
School doctors’ screening in Finland

- In grades 1, 5 and 8
- 30 min/pupil and parent

Photo credit: author’s own, 2015
How can we know who will benefit?
The aims

1. To explore: Can part of the school doctors’ routine health checks be omitted through screening

2. To evaluate: The benefits of school doctors’ routine health checks
Method

Grade 1 and grade 5 pupils: random sample

Screening questionnaires: parents, nurse, teacher

School doctor’s health check (blinded to questionnaires)

Doctor’s electronic report

Patient-reported experience measure
PREM: pupil, parent

BENEFIT or HARM

NEED
Areas of concern on the Screening questionnaires

- Growth and physical well-being
- Eating and sleeping
- School absenteeism
- Learning
- Strengths and Difficulties Questionnaire SDQ
  - emotions
  - concentration
  - behavior
  - being able to get along with other people
- Well-being of the whole family
- Wish to talk about the worries with the school doctor

Photo credit: authors own, 2013
Measures from doctor’s electronic report

- given instructions
- significant discussions
- follow-up plans
- evaluation of BENEFIT
## Criteria of benefit and harm

<table>
<thead>
<tr>
<th>A great deal of benefit</th>
<th>Significant discussion or other intervention that presumably reduces other health care use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Some referrals to tertiary care</td>
</tr>
<tr>
<td></td>
<td>Need to contact child welfare</td>
</tr>
<tr>
<td><strong>Quite a lot of benefit</strong></td>
<td>Doctor’s role irreplaceable by nurse</td>
</tr>
<tr>
<td></td>
<td>Presumably reduced worry</td>
</tr>
<tr>
<td></td>
<td>Some significant discussions</td>
</tr>
<tr>
<td></td>
<td>Some referrals to tertiary care</td>
</tr>
<tr>
<td><strong>Only a little benefit</strong></td>
<td>Nurse could have replaced the doctor</td>
</tr>
<tr>
<td><strong>No benefit or harm</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Only a little harm</strong></td>
<td>Suspicion that interaction failed or suspicion of no progress in care</td>
</tr>
<tr>
<td><strong>A great deal of harm</strong></td>
<td>The interaction failed or there was no progress in care</td>
</tr>
<tr>
<td><strong>Major harm</strong></td>
<td>Suspicion of negative patient reported experience measure or refusal of school doctor services in the future and no progress in care</td>
</tr>
</tbody>
</table>
Timeline

- Pilot study: 2015-2016
Material of the pilot study

- 3 Finnish speaking schools in Helsinki in 2015-2016

- exclusion criteria:
  - pupils studying in mainly special education groups
  - need of an interpreter for the parent

- 1 doctor
- 132 students
- 15/147 (10%) refused to participate

Photo credit: author’s own, 2010
## Results of the pilot study:
### Researchers evaluation of Need and Benefit

<table>
<thead>
<tr>
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<th>Benefit + n (%)</th>
<th>Benefit – n (%)</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Need + n (%)</strong></td>
<td>64 (48)</td>
<td>26 (20)</td>
<td>90 (68)</td>
</tr>
<tr>
<td><strong>Need – n (%)</strong></td>
<td>9 (7)</td>
<td>33 (25)</td>
<td>42 (32)</td>
</tr>
<tr>
<td><strong>Total n (%)</strong></td>
<td>73 (55)</td>
<td>59 (45)</td>
<td>132 (100)</td>
</tr>
</tbody>
</table>

Chi-square = 28.6, df = 1, p < 0.001
Results of the pilot study: Researchers evaluation of Need and Benefit

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<th>Benefit −</th>
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<tbody>
<tr>
<td><strong>Need + n (%)</strong></td>
<td>64 (71)</td>
<td>26 (29)</td>
<td>90 (100)</td>
</tr>
<tr>
<td><strong>Need − n (%)</strong></td>
<td>9 (21)</td>
<td>33 (79)</td>
<td>42 (100)</td>
</tr>
</tbody>
</table>

Chi–square=28.6, df=1, p<0.001
Conclusions

• Worry → Benefit

• No worry → Few significant problems

• The multicentre study will
  • Test the screening method more widely
  • Increase our knowledge of the benefits of school doctors’ routine health checks
Significance

• More time for pupils at all ages

• More time for pupils with special needs

• More time for collaboration
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