Digital Health Literacy Intervention for Children with Asthma

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1. Problem
Health literacy is a crucial ingredient of successful asthma self-management. Studies have shown that a paucity of asthma health literacy leads to lower levels of asthma control and thus more severe asthma symptoms, which, in turn, results in a suboptimal course of disease.

2. Research Questions
1. To which degree does an interactive health literacy coaching with parental support improve the health literacy in children with asthma?
2. How must the intervention be implemented in the healthcare system to increase its efficacy?

3. Research Frameworks

<table>
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<th>Access and utilization of health care</th>
<th>Health literacy</th>
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<tr>
<td>Provider-patient interaction</td>
<td>Self care</td>
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<tr>
<td>Health outcomes</td>
<td>Health outcomes</td>
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4. Method
Justificatory knowledge from evidence-based medical knowledge (Sch14) and our related work on childhood obesity (KOW2017a,b) is applied.

5. Expected Result

Mobile phone of the supervisor
- Involve supervisor (e.g. parent or sibling) via SMS to support a patient in her/his tasks
- Secure communication

Smartphone of the patient
- Smartphone app (Android and iOS) for digital coaching and sensor integration
- Secure communication

Health Professionals (e.g. patient organizations, hospitals, pharmacies)
- Access to intervention via a personalized card
- Intervention progress monitoring via website

MobileCoach server
- with intervention logic, media and data storage
- Secure communication

References

