Specific Requirements of Physiotherapists on the Practical Use of Software in the Therapeutical Process

Mag. Karin Messer-Misak
Introduction and Background

- Current healthcare system requires more effective management
- Education of health professionals in Austria moved to a tertiary level (Bologna process in 2006)
- Increased use of new technologies is expected in this professional area
- New opportunities provided by software are to accompany and strengthen this improvement process
Introduction and Background

- Software in therapeutic practice is mainly used to streamline administration procedures
- Gap between the available advanced software solutions and their actual use in therapeutic practice is getting bigger

Practical use of software which cover the administration, documentation and evaluation of the entire therapy process, including a database with pictures/videos about exercises which can be adapted individually by the therapists
How to improve the practical use of therapy relevant software in a therapeutic environment?
Methods

- Research strategy of mixed-methods
  - two-stage qualitative study
    - semi-structured qualitative interview guideline for the expert interviews (n=5); February - April 2014; One-on-One Interviews, 18 questions with further subquestions
      - Factors influencing the practical use of therapy relevant software
      - Competence that is needed to operate with software during the therapeutic process
      - Ideal conditions for the use, advantages and drawbacks
    - semi-structured qualitative interview guideline for the interviews with therapists (n=8); February - April 2014; One-on-One Interviews, 18 questions with further subquestions
      - requirements of typical action scenarios in which therapy-relevant software solutions are used
  - quantitative study (subsequent)
    - Standardized pretested questionnaire (n=306 totally)
Results – qualitative findings

- 225 codings; thirteen documents; two groups of documents
- topic “requirements on software solutions used during the physiotherapeutic process”
  - (Prephase)
    - use of quality-assured exercises and information
    - only be performed under therapeutic supervision
  - Problem recognition
    - smooth exchange of data between institutions
    - possibility to guide through a standardized diagnostic assessment which can be adapted
  - Therapy planning
    - recording of the current situation
    - display individually selectable exercise suggestions
  - Stage of implementation
    - assemble individually tailored exercises
    - add individual hints and suggestions for the clients
    - data protection
    - Reminders and (game based) feedback functions
    - Stored information should be retrievable for later analysis
    - measuring and assuring the quality of results
  - Phase cross-cutting activities
    - Support all administrative activities (i.e. planning appointments, billing, documentation, interdisciplinary exchange of information)
Results – qualitative findings

- Fears exist
  - Data protection
  - Who assumes liability in case of damage
  - Additional expenses for the enrollment of the client and for the cost of software
  - Reduction of face-to-face-therapy sessions
  - Supervised entities are paid for by the clients/health insurance provider
  - Additional work because of not sufficiently mature software
Results – quantitative findings

Scenarios – Software is perceived as helpful

<table>
<thead>
<tr>
<th>Use of Software</th>
<th>Disturbing</th>
<th>Rather a hindrance</th>
<th>No impact</th>
<th>Helpful</th>
<th>Very Helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing online information before therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage and record patient data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparation of findings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Therapy and target planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheduling dates and coordination of therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction and explanation of effects of exercises during therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistance in the exercise execution with the therapist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistance in the exercise execution without the therapist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documentation and evaluation of the progress during therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptation of therapy due to treatment progress during therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation of quality of results after therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand out information to clients at the end of therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exchange of information among professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support for administrative activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N = 179
Results – quantitative findings

Requirements for the Use of Software

- Knowledge on the practical use of software should be content of basic training
- Additional courses to become familiarised with the use of software
- Additional training at work to become familiarised with the use of software
- Informal exchange among therapists
- Testing of several software solutions
- Formal organised exchange among therapists
- The software must be adapted to the needs of the therapy
- The facilities need to be adjusted
- More time must be considered
- Possibility to supervise several patients online in one group
- Stronger self-responsibility of clients through more self-control

N = 179
Conclusion

- no holistic, continuous use and integration of software is part of the therapeutic process
- fulfill the specific requirements of physiotherapists on the practical use of software is the first step
- therapists need new competencies to understand and use software for the therapeutic process to gain the maximum benefit in their professional field of action as well as in the treatment process
Thank you!

Mag. Karin Messer-Misak

Corresponding Author:
Mag. Karin Messer-Misak
FH Joanneum Gesellschaft mbH
Institute of eHealth
Eggenberger Allee 11
8020 Graz
E-Mail: karin.messer-misak@fh-joanneum.at