Challenges in technology assessment of assistive products

LORÁND EÖTVÖS UNIVERSITY, FACULTY OF SPECIAL EDUCATION

Lajos Kullmann

lajos.kullmann@barczi.elte.hu
Internal Classification of Functioning Disability and Health
(ICF: WHO, 2001)

health condition

<table>
<thead>
<tr>
<th>BODY function/structure (impairment)</th>
<th>ACTIVITY (limitation)</th>
<th>PARTICIPATION (restriction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>environmental factors</td>
<td>personal factors</td>
<td></td>
</tr>
</tbody>
</table>
Assistive products for people with disabilities. Classification and terminology ISO 9999:2011

This International Standard establishes a classification of assistive products, especially produced or generally available for persons with disability ... for prevention, compensation, monitoring, decreasing or neutralizing impairment, activity limitation and restriction of participation. Users are: persons with disabilities, authorities, agencies, physicians and rehabilitation professionals, manufacturers and providers, health care plans, organizations of users, researchers.
Client’s expectations towards assistive products

- optimal function
- minimal inconvenience
- cosmetic/aesthetic manufacture
- safe use
- durable
- easy use and maintenance
- inexpensive
Technology assessment

Why difficult with assistive products?


- epidemiological data missing, difficult to identify future users
- insufficient data available for comparing similar products, very few clinical studies, available information concerning specific products is largely different
Technology assessment – continued

- hardly any health technology assessment studies available on assistive products, cost efficiency studies of new developments are missing
- present system of admission to the list of health plan supported assistive products inadequate for study of differences in quality
- cost relations are known only in case of available similar products but not at new ones, cost elevation requests are inadequately supported by data
Some reasons of the listed problems

• users are persons with disability, disability is influenced by the environmental factors as well
• assessment should be carried out with a system thinking as suggested by Batavia
• provision and its quality needs assessment in several contexts as pointed out e. g. in the definition of health care quality
System thinking at provision with assistive products


You may ask several questions, e.g.:
- Are wheelchair accessible transport services available?
- Is the target building accessible by the wheelchair?
- Is it adequate for the planned activities?
- How do people around relate to the person in a wheelchair?
Some reasons of the listed problems

• users are persons with disability, disability is influenced by the environment as well

• assessment should be carried out with a system thinking as suggested by Batavia

• provision and its quality needs assessment in several contexts as pointed out e. g. in the definition of health care quality
The quality of health care is a value judgment, which reflects the extent of meeting the expectable needs expressed by participants in health promotion, cure, rehabilitation and long term care. The extent of realization of each component may be described by characteristic indicators.
Some reasons of the listed problems – continued

• price calculation is difficult
  – rather small production volumes
  – not only type but full scale of size choices are needed even in serial production
  – at individual manufacture calm and confident cooperation of client and provider is necessary (e. g. socket modelling by the prosthettist)
  – in contrast to pharmaceutical industry only supplementary activities may provide sufficient profit level for investment into innovations
Areas of assessment at provision by assistive products


• The user
  – medical, biological (body) parameters
  – personality, attitudes, temperament
  – socio-cultural conditions, believes

• The environment
  – physical dimension
  – socio-cultural dimension

• Daily activities and social roles

• Conditions of assessment and training

• The assistive product (e.g. wheelchair, hearing aid)
Examples of possible interventions

• Centres of assistive products in Norway

and the Hungarian story

• Study of benefits of lower limb prostheses by O. Bock in the early 1970’s in Hungary and developing criteria for the introduction of restricted health plan supported provision

• PHARE Access project, joint development of team assessment of wheelchair use in MEREK
Thank you for your kind attention