

“Using the ICF in economic analyses of Assistive Technology systems: Methodological implications of a user standpoint”

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Source

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Abstract

Purpose

This paper identifies key methodological issues for economic analyses of costs and effectiveness of Assistive Technology (AT) systems based on the International Classification of Functioning, Disability and Health (ICF). Following the biopsychosocial model of the ICF, the paper explores the consequences for cost-effectiveness analyses of AT systems when a user centred approach is taken. In so doing, the paper questions the fiction of neutrality in economic analyses and discusses the distinction between weak and strong objectivity.

Method

Costs are measured as all resources used when providing a particular level of environmental facilitators and reducing environmental barriers for an AT user, while effectiveness is measured in terms of the resulting increase in activities and participation of the AT user. The ICF's fourth qualifier for activities and participation, which denotes performance without assistance is used to identify the additional performance achieved due to the particular environmental factors in the current situation (first qualifier). A fifth qualifier for activities and participation is introduced to denote performance with optimal assistance, and the fourth qualifier is then again used to identify the increase in activities and participation due to the environmental factors in the situation with optimal assistance.

Results

The effectiveness that an AT user achieves in his or her current situation can be compared with the effectiveness he or she could achieve when provided with what is considered an optimal AT system based on current technologies and user priorities. This comparison throws into sharp relief the role of AT systems as well as of universal design (UD) in reducing environmental barriers for AT users in a way that is cost-effective for society as a whole.

Conclusion

Cost-effectiveness analysis based on the ICF can provide powerful economic evidence for how best to allocate existing funding for AT systems. We can identify three particular scenarios in which clear recommendations can be made. In addition, cost-effectiveness analysis provides a means to identify how society can comply with its obligation towards all its members in the most cost-effective way, using a combination of AT and UD.

Keywords

Economics; ICF; cost-effectiveness analysis; Assistive Technology; universal design