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A Functional Analysis Of An Assistive Device Information Database in Flanders: A Qualitative Study.

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1. Background

The Flemish assistive device information database, Vlibank, was started in 1989-1990 by the Flemish government to meet the needs for knowledge and information on assistive technology (AT). Since 2002, the Vlibank is managed by the Knowledge Centre Assistive Technology (KOC), part of the Flemish Agency for Disabled Persons (VAPH). In 2009, Vlibank became a member of EASTIN, an overarching database with seven national AT databases in Europe incorporated. Vlibank aims to have a complete overview of assistive devices in Flanders, but concentrates on devices reimbursed by VAPH. For every device, basic product information is listed, along with information on manufacturers and distributors. When available, pictures and video material are included. End-users can enter their experiences with devices and interact with other end-users. Furthermore, the KOC also tries to fulfill other information needs by giving training courses on the use of Vlibank and by publishing information brochures on devices and on the selection of the devices for people's needs.

Maintaining a database and keeping it up-to-date with new devices and technology is a very time consuming and labor-intensive task [1]. One of the problems of the Vlibank is that it is not updated with the latest technologies or AT devices and that the general structure is not updated. However, the fast growing AT market increases the need for unbiased information. A lack of information or awareness of potential end-users and AT professionals may contribute to unmet needs of end-users and acts as a barrier for people trying to access AT [2].

Recently, the policy on federal and regional level in Belgium has changed. Until now, the federal (national) level used to be responsible for the reimbursement of mobility aids. On the regional level (Flemish in this case), VAPH is responsible for the reimbursement of assistive devices in people aged under 65 years old [1]. The 6th reform

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of state transfers two important aspects of AT policy from federal to the regional level. First, the regional level will become solely responsible for policy and reimbursement of mobility aids. Second, the benefit to elderly people, aimed at people who are confronted with a handicap after the age of 65 years, will also become their responsibility. This expansion of responsibility means that the Flemish government needs to be able to reimburse a bigger group of AT devices, but also the changing needs of a larger group of people, regardless of their age. As a consequence, questions about efficiency improvement arise to make sure that government resources are used in the most effective and efficient way.

The expansion of responsibilities and the fact that the Vlibank does not meet the current needs (to be updated and target the larger group of users with the extended group of AT devices that will be reimbursed by VAPH) are the reasons why VAPH called out the institutions to an age-independent disability policy. Because the crucial role of an AT information database in the selection of AT devices and the effectiveness of the service delivery, it is necessary to perform a functional analysis [3]. This study sets out to review how an ideal AT information database looks like and function. The aim of this study is to assess three aspects of AT information databases:

- What information next to product information do target groups need when they access an AT information database?
- How can this information be as client-centered and user-friendly as possible for these users?
- How can interaction between the target groups be optimized in order to be able to exchange information between groups and individuals?

2. Methodology

A qualitative design was used to answer the three research questions by conducting a series of focus groups. Participants were purposively sampled in order to gather the views of three groups of stakeholders: manufacturers and distributors of AT (n=7), AT advisors and executive employees from health insurances funds (n=12 and n=5) and end-users of AT (n=5). A sixth and final focus group of end-users will be organized in the next months.

Based on findings from the desktop research on relevant literature and international AT databases, a separate topic guide was created for each stakeholder group. However, all topic guides were similar in content and structure. All focus groups were audio-taped after informed consent from participants. The focus groups were led by a moderator. Afterwards, the audio-recordings were transcribed verbatim. Non-verbal information (noted by an observer) was included in the transcripts. Subsequently, a thematic analysis of the collected data was performed. Themes that were generated from the three stakeholder groups, were organized following the three research questions. These themes were also contrasted across the focus groups and compared to identify similarities and differences in the data. In the following months, this thematic analysis will be followed by a more detailed analysis with datacoding using QSR International Nvivo.

3. Preliminary results

3.1. Information needs besides product information

All participants of all groups agreed on the importance of visual information on AT, like short video material and photos. This makes it easier for end-users to evaluate what is on the market for their problem, certainly for end-users who are confronted with the need for an AT device for the first time. End-users and also participants from the AT professionals group explained that it would be very helpful to be informed through a database where they can test or rent certain AT devices.

Participants of the groups of AT professionals and end-users also agreed on the need of information on pricing and reimbursement possibilities as this is one of the biggest concerns of end-users. Some end-users indicated that they currently use the list with all products that are reimbursed by VAPH (*refertelijst*) to see which products are reimbursed, but that it would be helpful to have this information combined with product information in the database. The group of manufacturers and distributors were more reserved regarding pricing information as the cost of service and advice is not always incorporated in the product price and this may lead to a distorted view on pricing. End-users also explained that they would like to access information on procedures regarding procurement and reimbursement on an information database.

The group of professionals and manufacturers/distributors pointed out that it is important that the listed manufacturers and distributors have some sort of quality label. This label can be used to guarantee to end-users of the database that they deliver good quality products and service.

Some participants of the group of professionals reflect it could be helpful to access scientific articles on AT on a database. However, as this is a broad concept, they also indicate this is difficult to implement.

3.2. User friendly and user centered information on AT

All participants agreed that an up-to-date information database would be very helpful for them. However, the big issue raised by all of them is the fact that they feel it is nearly impossible to keep an information database up-to-date. Manufacturers and distributors pointed out that the market is ever-changing. They indicate that it could be possible to incorporate standard devices, but that it is very difficult to incorporate specific, individualized devices into a database.

According to all participants, an information database can be used as a first selection tool for devices suitable for a problem by asking generic questions about people's disabilities and living conditions. They also agreed that a list of manufacturers and distributors should be displayed after answering the questions so they can be consulted for more advice. In this way, the information database would rather function as a referring, generic information website. One manufacturer/distributor indicated special attention should be given to the fact that the use of this selection tool implies that people have an understanding of the full extent of their problem. This may not be the case in many situations. One participant of the end-user group pointed out that it is always important to keep an overview of all devices in order to make sure no devices are missed as a result of answering questions.

The group of manufacturers and distributors stressed the importance of informing all possible users of the existence of a database.

Another issue pointed out by the group of manufacturers and distributors, is that information on a database should be organized in a logical and well-structured way to enable an easy navigation and incorporation of new information. When thinking of a logical structure, all possible users should be taken into account to tailor the information given on the database to the different groups.

Manufacturers/distributors and AT professionals stated that the current group of end-users (e.g. older users) may not have much experience with computers and the internet and that, as a result, their use of an internet database could be nonexistent. They may need additional resources to access the information in the database.

3.3. Improvement of interactivity between users.

All participants agreed that user ratings and reviews are very subjective and that it is a bad idea to incorporate this in an information database. Only one participant in the group of end-users thought it could be an advantage to score the quality of service delivered by distributors of AT devices. Some participants of the group of distributors referred that reviews may lead to possible distorted expectations and wrong ideas on the quality of the product or service of end-users.

However, according to the group of AT professionals, the use of a forum for professionals and the possibility to read their reviews would be useful as the opinion of colleagues is currently asked via e-mail or a phone call. Such a forum could also help new young professionals to build a network.

4. Conclusion and future activities

Our preliminary results indicate that there is consensus on the information needs next to product information and on the use of generic questions as a selection tool for AT devices. The biggest issue raised by all participants is the difficulty of keeping an information database up-to-date, especially for individualized devices. The need for a forum to promote interactivity between users was only acknowledged by AT professionals. All participants, except one, are very wary of the use of user ratings and reviews.

In the next months, additional data will be collected by conducting usability studies that considers the think-aloud protocol will be performed with participants of the 3 stakeholder groups to identify obstacles regarding accessibility and usability of the Vlibank. Semi-structured interviews will be conducted with international experts regarding AT information databases.

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