Assistive Technology awareness and utilization of its potential among lower limb amputees of Delhi, India

INTRODUCTION

Assistive Technology, an umbrella term about the systems and services associated with the assistive products and services. Assistive products maintain and improve the user’s functioning and independence to promote well-being. The facts on the Assistive Technology paradigm are user awareness about the technologies, accessibility and availability of such technologies, non-availability of information, awareness, and accessibility for the users, lack of awareness of the benefits, effectiveness, and availability of such technologies to the users, lack of training and awareness about the assistive technology available, and lack of clear guidance on how to use and what to use in the context of the user’s needs. These issues are caused by the wide distribution of such technologies among different regions having different conditions and existence of barriers that have huge variation in different regions of the world.

Aim

The aim of this study is to assess the current status of the Assistive Technology awareness and utilization among lower limb amputees of Delhi, India. The recorded interviews and field notes were analyzed, using Weft QDA software (1.0.1) after transcription and translation. Studies are limited in the field of disability that entirely focuses on the element of awareness as a determining factor in the utilization of the assistive technology. This paper is an effort to address the gap in awareness on the assistive technologies for the persons with disabilities, with the specific reference to lower limb amputees.

METHOD

Conducting a Exploratory research design

Ethics—Following ethical principles which included obtaining ethical clearance to conduct the study, all participants were consented to participate in the study.

Tool—questionnaire on awareness about the assistive technologies, on utilization of such technologies, problems faced by any, and the availability and accessibility of such technology were asked.

data Collection—The data was collected from the participants and the interviews were recorded.

ANALYS

The recorded interviews and field notes were analyzed, using Weft QDA software (1.0.1) after transcription and translation.

Focus by site—We were collecting data for the entire city.

Based on the codes grounded in the different themes. Validation of the codes were done by sharing the codes between the authors while the codes were compared with the data by using Figure 1.

MEANS OF ASSESSMENT OF TECHNOLOGY AWARENESS AND UTILIZATION

Duration to seek amputee care (in months)

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Participants</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Knee</td>
<td>20</td>
<td>40.00%</td>
</tr>
<tr>
<td>Above Knee</td>
<td>30</td>
<td>60.00%</td>
</tr>
</tbody>
</table>

Mean expenditure [INR] (in thousands)

<table>
<thead>
<tr>
<th>Group</th>
<th>Average Cost (INR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Knee</td>
<td>30,000</td>
</tr>
<tr>
<td>Above Knee</td>
<td>40,000</td>
</tr>
</tbody>
</table>

Duration to seek financial support (in months)

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Participants</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Knee</td>
<td>10</td>
<td>20.00%</td>
</tr>
<tr>
<td>Above Knee</td>
<td>40</td>
<td>80.00%</td>
</tr>
</tbody>
</table>

DISCUSSION

According to the science of sustainable consumptions, public awareness plays an important role. It is important to note that the awareness of the user about the interventions available and allocated with the potential users will address the awareness and as such all the potential users will be aware of the awareness and the availability of such technology.

The success of any assistive technology will depend on the awareness and knowledge among the users. Even though an paper evidence suggests there are more number of higher mobility supporting interventions or assistive technologies for people in order, the number of people using them are still not been documented.

AIDABILITY AND ACCESSIBILITY

This study found a majority of people with lower limb amputation are using lower mobility supporting interventions or assistive technologies and it is an important topic that needs to be addressed.

It is also important to note that the technology options that are available for lower limb amputee with better functionalities are either unaffordable or if they are affordable then they are not in reach to amputees.

The cost, availability, knowledge about the features of assistive technologies with higher features still needs to be addressed.

Recommendations

It is necessary to work with the users to find a way to take awareness on increasing the uptake, awareness and utilization of the intervention. Success criteria would not set up similar examples.

Involving a user throughout the process of design, development, training, strategic awareness building, and rehabilitation through an online route is necessary.

Rigorous attention towards bridging the knowledge gap between what is available and known as is important to developing new technologies.

Making the existing technologies available and accessible for anyone who needs it will fill in a lot of void in the field of assistive technology and rehabilitation.

Mapping the points of interventions for knowledge transfer and channeling the information through a systematic process is essential.

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