



Enabling local provision of assistive technology: A survey of needs, barriers, and facilitators



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Background

- Disability, as a global human rights issue, must be mainstreamed within all development, health, and educational programs to achieve a rights-based inclusive society.
- Harnessing the potential of assistive technology (AT) is an achievable means to fulfilling many obligations under the CRPD and the SDGs.
- Challenges in low- and middle-income countries include high disability-related stigma, limited access to rehabilitation services and assistive devices due to high costs, limited availability, lack of awareness and trained personnel.
- The study was conducted at Amar Seva Sangam (ASSA), a disability NGO working in Tamil Nadu, India serving both adult and pediatric clients.

Objectives

Aims of this study were to:

- Identify **service providers knowledge** of assistive technology (AT) in their field of practice
- Assess **gaps in AT provision** and pediatric and adult client **met and unmet needs** for assistive products (APs) at ASSA;
- Identify **barriers and facilitators** associated with AP provision;
- Identify **capacity building needs** for rehabilitation professionals to enable AP provision;
- Improve **supports to enable access** to appropriate and necessary AT to maximize function in children and adults with disabilities.

Methods

This collaborative study was conducted by two Canadian masters' student researchers in Occupational Therapy and Disability Studies programs, two ASSA rehabilitation managers and a Canadian consultant physiotherapist.

Participants included 62 rehabilitation professionals working in ASSA's pediatric (home- and centre-based), school-age and adults services:

- Physiotherapists (n=24)
- Occupational therapists (n=2)
- Special educators (n=25)
- Speech trainers (n=11).

A **two-part online survey** was conducted from April 2020 to September 2020.

- The survey was developed based on the World's Health Organization's Assistive Product List (APL) and the UNICEF/WHO Assistive Technology for Children with Disabilities.
- Participants responded to survey questions related to AP in their practice area.
- Due to the COVID-19 pandemic, all survey stakeholder meetings, as well as survey development, data collection and data analysis, were performed through virtual platforms

For survey purposes, identified APs were classified into the following domains:

- Mobility devices (wheelchairs and walking aids)
- Standing and sitting postural aids
- Orthotics and prosthetics
- Communication devices and learning aids
- Visual and hearing aids
- Personal living aids
- Environmental modifications

Barriers and facilitators were classified to the 5 As' of AT:

Availability

Accessibility

Acceptability

Adaptability

Affordability.

An exhaustive list of common and context-specific barriers and facilitators was developed and classified under each of the appropriate As' categories.



Results

Extensive data analyses identified:

- Key differences** in among AP categories and provider disciplines.
- Common themes** emerged based on barriers and facilitators.

Top three barrier categories across disciplines:

- Acceptability
- Affordability
- Availability

Most common barriers to AT access were:

- Not accepted by the service user and/or family due to stigma and/or appearance
- Not affordable for service user/family
- Long waitlist for government-provided and/or expensive devices.

Top three facilitator categories across disciplines:

- Acceptability
- Affordability
- Accessibility

Most common facilitators to remedy these barriers, as identified by rehabilitation staff, were:

- Community education and awareness,
- Availability of funds for the AT,
- Client education for the service users and their families
- Training and education for professionals to prescribe/assess/modify APs.



Conclusion

Survey findings highlighted key areas to address AT provision at ASSA.

A multi-pronged approach was developed to address barriers and facilitators in each AP category and each rehabilitation discipline.

Recommendations and action plan:

- Launch of an equipment provision fundraising campaign** by Handi-Care Intl, a Canadian partner charity, to support the AT program at ASSA.
- Provide staff capacity building** on various stages of AT provision including:
 - Referral, assessment & prescription for key AP
 - Funding and ordering
 - Product preparation, fitting and modifications
 - Training in use of AP
 - Maintenance & repairs and follow-up
- Review referrals:** establish priority lists
- Establish regular AT assessment camps**
- Identify AP suppliers:** commercial and custom-made AP suppliers were identified.
- Develop educational material** for service users and families for various AP.
- Community and school disability awareness programs** were enhanced to reduce AT-related stigma



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