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Research, Information, and Education on Assistive Technologies

A nation-wide network of advice centres on assistive technologies
Elderly and people with disabilities - Limitations in their everyday life

Three case studies

Terezinha Menezello
Three case studies with elderly people and people with disabilities in different situations are presented as examples of adaptation of the bathroom area. Concrete solutions that have been found with respect to their limitations and the way they successfully solved their problems by means of home adaptations using either low-tech solutions or high tech devices are described.
An old couple

The main purpose of this intervention is to find out facilitation in the rest room, so as to make it possible to carry out every day’s activities without structural changes in bathroom.
Luigi and his wife

• The actors: Luigi (96 years old) and his wife (82 years old) live on their own in an apartment at the 4th floor, in a big city
Luigi’s bathroom

Luigi moves independently inside his home. He uses a walker to support shifting. When he arrives in front of the bathroom door, he leaves the walker outside and uses different support points (the door handle, the wash machine, the sink, the drawer handle), until he arrives in position to seat on the toilet bowl.
How Luigi moves inside of his bathroom

- Luigi moves slowly and needs to lean against the sink, the support bars, and handles.
- The comoda chair has a hard surface which causes pain when seated.
The toilet bowl

- The height of toilet seating is lower than a standard; it is only 42 cm. including the toilet seat. As the problems related to growing old, includes sitting down and getting up of the toilet increase, Luigi becomes dependent on his wife.
Toilet bowl with comoda chair

With increasing of difficulties, Luigi used a comoda chair to be independent but actually the hard surface generates pain and leads also to skin problems.
Raised toilet seat with fixed handles

Solution adopted:
1. Raised toilet seat with fixed handles – to allow for stability and safe seating down and getting up of the toilet bowl.
2. Characteristics:
   - Fixed support on toilet bowl
   - Metal structure in aluminium
   - Long handle
The way Luigi uses the sink

- The sink: By using a commode chair placed near the sink, equipped with a cushion, because the hard surface generates pain and leads also to skin problems in the sciatic region just where there is the point of support when he is sitting. Luigi seats down to execute the daily morning activities of personal hygiene; he washes his face, brushes his teeth, combs his hair and shaves without help.
The wash tub

- Luigi has slowness in movement, he tries hard to get up from seating, he feels back pain and has also edema in the legs.
- He was not able any more to go in and out of wash tub
Swivel wash tub chair

• Luigi and his wife have a lucid mind and they are looking for assistive devices to support independent living for them.

Solution adopted
• Swivel washtub chair, suitable to overcome difficulties of positioning inside of washtub.
Luigi and his wife going out of bathroom

- Luigi uses a stick and handles to move inside of his bathroom and leave it before go out.
- Her wife helps him reach the walker.
Silvia’s Bathroom

The choice for a more independent life in bathroom

Terezinha Menezello
• The actor: Silvia is 59 years old woman and in July 2002 she had a hemorrhagic aneurysm resulting into compression of the brain with consequent hemiplegia. Following discharge from a Rehabilitation Center, she lives at home with her family. The bathroom is currently the environment that represents the main problem to be addressed in order to take control of her hygienemore independently as possible
The choice of Silvia

• The apartment has two bathrooms (a small one, with not accessible box shower, and a larger one, with the wash tub). After a thorough study Silvia and her family decided to change the main bathroom to create an accessible room for her needs.
The main bathroom

- It is the spaciously but the wash tub was not indicate to give Silvia’s more authonomy
The toilet bowl

- The height of toilet seating is lower than a standard; it is only 42 cm. including the toilet seat.
- It is placed against the wash tub and it is no place to transfer.
The wash tub

- The access in the wash tub is difficult. Silvia can arrive only by the front side.
The small bathroom

- The box shower is not accessible (there is a degree high 13 cm.)
- The bidet hinder the pass
The toilet bowl

- The toilet bowl: The bowl has a double function; as a WC and as a bidet. It is about 50 cm. high and it is provided with a front opening in order to allow the washing operations through the use of an external shower.
The box shower

• The box shower: A shower tray floor edge and a folding seat
• Silvia can use the shower chair from bedroom
The shower chair

- Silvia transfers from wheelchair to shower chair and reaches shower box pushed by an assistant.
The wash basin

- The washbasin: Baked clay washbasin is provide with rest for the elbows, splashboard borders and it has a particular hollow shape which allows an easier access.
The new bathroom

- The room is spacious to move inside by a wheelchair user and an assistant. Silvia now is able to use the new bathroom more safely and comfortably.
Tina’s Bathroom

After 3 years without using the bathroom, she decided that it was time to return to a more autonomous life.
New kind of life.

- She is a woman 46 years old and tries to become more independent at home.
- In 1985 she suffered a surgical complication following an operation to a severe scoliosis that led her to stay in bed for 10 years. In 1999 she became able to seat; she adopted a wheelchair and begun to seek more autonomy.
The accessibility and to toilet bowl

- The access is impaired on the left side by the sink and on the right side by the shower box. There is no place to install support to the transfers and it is too high for the user. The height of WC should be the same as the wheelchair (it is too high).
The toilet bowl

- The bowl has an opening at the front side, designed to help with cleaning, however, it creates instability. Tina has spastic legs and the transfer can produce contractions and she does not feel safe; she fears the empty space in front of her while attempting transfer.
The shower box and upsetting chair

The user decided to eliminate the upsetting chair; alternatively, she’s trying out a shower chair with the big wheels to be able to manoeuvre on her own.
The shower chair with big wheels

By this way, the transfer will be done in the bedroom (bed to shower chair and shower chair to bed).
The Sink:

The accessibility, the size, and height are considered by Tina adequate. The mixer tap is easy to handle and safe.
The light point and electrical outlet:

- It is located too high (150 cm) and it is not accessible. To turn on the light she uses a walking stick but the electrical outlet is not usable.
Lighting and mirror

Transfer the light point and electrical outlet at 100 cm high and at the left side of the sink because access is easier. Tina is satisfied with the illumination of her bathroom.
Thank you

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