



## PREPARING AGED POPULATION FOR NEW TECHNOLOGY AS ASSISTIVE DEVICE IN DAILY ACTIVITIES AND SOCIAL SAFETY IN INDIAN COMMUNITY BASED SETTING.

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**ABSTRACT** **Introduction:** Technology is playing an increasing role globally in the lines of older adults. (1.)The evolution of the new technology is very fast over the last few years and it is going to grow faster every day with the new government policy in India. With the help of new technology, new aids are available to make the ADL of geriatric population independent and socially active.(2) However, experiencing difficulty to understand the new gadgets, handling difficulty makes rejection more than acceptance and use them. The older adult's technology adoption is influenced by multitude of economic, practical, and psychosocial factors. These include cost, limited knowledge of the types of assistive technology available and how to use them.(3)After short training sessions and independent practice sessions, the follow up was taken to judge the simplified solutions of the daily life problems and acceptance of the new technology as assistive device rather than rejection and increase in dependency in daily activities.

### KEYWORDS :

#### Inclusion criteria—

- 1) The selection of the population was adults both male and female above 75- 90 years of age who can read and understand the instructions.
- 2) The adults who can afford smart phone.
- 3) Adults who are staying alone or their near ones are mostly out of town.

#### Exclusion Criteria—

- 1) Geriatric adults who are illiterate.
- 2) Low financial condition in which they can not afford basic smart phone.

#### Method-

A semi structured interview focused on the understanding the impact of various physical, social and cultural and home environment factors were noted. The problem area in daily activities, social, and leisure activities were noted.

#### Outcome measures-

- 1) Anxiety scale (Beck anxiety inventory)- Before starting the program each individual was tested. It consist of 21 items, each scored 0 to 3, With higher scores i.e. between 30 to 63 representing higher level of anxiety.
- 2) FIM test for ADL- It includes 18 items and taken into consideration basic ADL as well as instrumental ADL involving problems in memory, cognition.

#### Procedure-

Training sessions were carried out of maximum 45 minutes or less taking into consideration their fatigue level and alert level. Training on new gadgets like smart phone started with basic instructions of handling it explained. According to individual problems, must apps on phone were explained. The majority of the apps in favour were Navigator, file manager, Reminder for medications, self monitoring parameters like glucose level, blood pressure, pulse rate, help line for police, and ambulance, what's app for faster communication with family and friends. The advantages of each app, when to use them and how to download were explained. Under supervision, the apps were downloaded by them.

Practice sessions were conducted according to the need of the person, till they fully understand and master them. They were from 3 sessions to 15 sessions, different for each individual on their capacity to understand, memorise, and handle each app independently.

Follow-up was taken after a month and after 2 months for each individual with the above measures.

#### Discussion-

In today's modern technology era, the technology advancement is very fast which is very difficult for the geriatric population to handle. Though the technology is easily available, there is a barrier to technology acquisition and use. The devices are often perceived as too complicated to use.(4) Further, comorbidities that impact memory,

sensations, fine motor control, or special senses as hearing and vision often complicate the adoption and use of assistive devices and technologies. If a device is perceived as not user friendly and the challenges outweigh the perceived benefits, geriatric population often resist the integration of the device into daily routines.(5)

After the interactive sessions, the participants also discussed the importance of maintaining personal autonomy, independence and control in their lives.(6) For many of the participants, the desire to remain independent stemmed from their wish not to be perceived as a burden to family and friends.

For many participants, safety measures in every day life was the measure cause of anxiety.(7) Ability to communicate with the near ones when emergency arises was the main concern. So the apps which were most accepted by these participants were

1. For safety and communication in case of emergency- Helpline for police and ambulance, what's app, skype
2. For hospital and clinical visits dependency on others- Self monitoring of basic parameters like pulse, BP, sugar levels
3. For Memorising medicine timings and managing other daily routine activities like payment of insurance, bills- File manager and Apps giving auditory and well as visual indicators were most accepted.
4. Socialising and commuting in the society independently- Asking for instructions for roads were solved by navigator with audio signals. Also there was anxiety to use public or private transport in the fear of being taken advantage of senility and the associated problems of memory and cognitive issues like problem solving, topographical orientation and handling financial transactions outside home.

#### Conclusion-

As the life expectancy is increasing, and the society is becoming secular with nuclear families, the problems of geriatric populations are on rise. The adaptive devices are changing the faces too. The Occupational therapist understand the problems of geriatric populations motor as well as psychiatric, and take the help of new advanced technology as adaptive device help to make the clients independent till the end of life.(8) A new revolutionary measure should be a part of palliative as well as rehabilitative care in future.

#### Key Findings

Geriatrics under utilize the technology because of anxiety and fear to handle new equipments

Technology acquisition / use is influenced by multiple barriers

Decision making occurs within socio- cultural contexts that shape the meaning of technology adaptations.

The Occupational Therapist should come forward to incorporate new technology in geriatric lives.

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