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mHealth is a novel and promising tool to improve and support effective care for the elderly. However significant challenges remain, primary of which are the older individuals resistance to and suspicion of modern technology. It is therefore imperative to modify and adopt mHealth technology after understanding the needs and attitudes at a local level. We carried out a study based on a specially designed questionnaire to assess the needs among 260 elderly individuals from both the outpatient department at AIIMS and the community settings in Delhi. The study is ongoing and preliminary analysis of 75 elderly individuals revealed certain trends. Around 90% of the individuals either owned a mobile phone or had accessibility to one. Nearly 70% of the individuals had a favorable attitude towards mHealth services. The mHealth services preferred were Health services (appointments etc), educational content and social isolation and security (in that order). Amongst the medical issues; Dementia, Cancer and visual loss were their greatest fears. The most preferred medium for service delivery were telephone calls followed by SMS and social media. Among the more important factors associated with support of mHealth services were lower education status, lower middle class, ownership of a mobile phone and regular users of mobile internet. To conclude, preliminary analysis has revealed a favorable trend in terms of both mobile phone usage and attitudes towards their use in healthcare. This can promote further "mAgeing" strategies in future.

IMPROVING USABILITY AND SAFETY OF WALKERS THROUGH THE DEVELOPMENT OF A SMART WALKER FOR OLDER ADULTS

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With an increasing percentage of our population entering the 65-and-over demographic in coming years, assistive technologies are more important than ever. Enhancing and promoting the autonomy of the elderly can be accomplished in part through the development of such product. We report on the development of a smart rolling mobility walker employing a user-centered design process whereby users and other potential stakeholders are integral in all stages of the creation of the product. During each stage of the design process, the researcher met with older adults, some of whom used walkers and some of whom did not, and a team of retirement community administrators, physical therapists, and occupational therapists. The overarching outcome of this research examines opportunities that exist for integrated smart devices for enhanced user mobility and safety. The smart elements of the walker, prototyped using programmable microcontrollers and sensor devices, include a gyroscope that detects declination angle and passive infrared (IR) and acoustic sensors that detect user position relative to the walker. The gyroscope controls application of friction to the rear wheels by way of stepper motors to aid in safe movement when going downhill, while the IR and acoustic sensors provide feedback for safe user position using auditory and visual cues. We also report on functional changes to our smart walker including retractable seating, changeable

handle positions, and multi-directional folding. We focus on integrated functionality such as wheel locking when the seat is deployed, eliminating the need for users to manually lock the loop breaks.

CONNECTING GENERATIONS THROUGH TECHNOLOGY: EVALUATING OLDER ADULT AND STUDENT MENTOR PROGRAM OUTCOMES

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Cyber-Seniors®: Connecting Generations is an international, intergenerational program that connects college students and/or high school students with older adults. The program helps older adults learn to use technological devices and programs while providing students valuable skills in teaching and communicating. Four programs implemented the program from January-May 2016 at various settings including a 4-year university, volunteer agency, boys and girls club, and a career technical center in Rhode Island, Florida, Washington DC, and Michigan, respectively. All student mentors and older adult participants completed pre- and post-surveys that included both quantitative and qualitative questions. University students also maintained in-depth observation logs of their sessions and completed reflection papers based on their experiences. This enabled the gathering of in-depth qualitative data about the program and the experiences of those involved. Preliminary quantitative (e.g., paired *t*-tests) results show that older adult participants reported higher social engagement scores ($t=-15.35$, $p<.001$) and improved social isolation scores ($t=-7.94$, $p<.001$) following program participation. Nearly all student mentors (between 85–93%) reported learning about helping others, gaining communication skills, and learning to be patient with others. Rich qualitative data shows that the program helped to break down negative generational stereotypes and reduced the generation gap, and that all involved particularly valued the personal bonds and relationships that develop. This program is sustainable and transferable, and it is currently being implemented in locations across North America. It is particularly beneficial for educating future health and human services professionals who will increasingly be serving and interacting with older adults.

TECHNOLOGY DEVELOPMENT FOR THE WAY THAT WE ARE: COMMUNITY BASED HOLISTIC INDIGENOUS ELDER ENGAGEMENT

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