

*E.M. ORELLANO, J. JUTAI, A. SANTIAGO, V. TORRES, K. BENÍTEZ. Assistive technology needs and measurement of the psychosocial impact of assistive technologies for independent living of older Hispanics: Lessons learned. Gerontechnology 2016;15(suppl):91s; doi:10.4017/gt.2016.15.s.857.00* **Purpose** (a) To identify the assistive technology (AT) needs of a sample of Hispanic older adults with functional limitations living in Puerto Rico, (b) to describe the anticipated effect of these technologies (e.g., all categories of assistive technology and not limited to any one type) on the sample's quality of life dimensions of adaptability, competence, and self-esteem, and (c) to describe the methodological challenges in using the Puerto Rican version of the Psychosocial Impact of Assistive Device Scale (PR-PIADS)<sup>1</sup> with Hispanic older adults. **Method** This study used a cross-sectional design conducted with a purposive sample of 60 Hispanic community-dwelling older adults (77.4±6.3yrs old; range 70-97; 66.7% female). Data collection measures included the Assistive Technology Card Assessment Questionnaire (ATCAQ)<sup>2</sup> and the PR-PIADS. Data analyses were conducted using central tendency descriptive statistics and bivariate analysis for quantitative data. **Results & Discussion** We found that the sample's most frequently reported needs for AT devices were in the areas of cooking, home tasks, and home safety activities (*Table 1*). The sample reported a positive impact of AT use in their quality of life. The highest mean score was found on the self-esteem sub-scale (2.77), followed by the adaptability (2.51), and finally the competence (1.98) subscale. Methodological challenges of the PIADS included challenges with the self-administer format and poor understanding of the PIADS numerical graded response format from -3 (indicating the most negative impact) to +3 (indicating the most positive impact). This resulted in the subjects' preference for positively skewed extreme responses or the tendency to answer the PIADS items with the same response (halo effect). Socio-demographic factors and cultural bias of Likert scales with Hispanic populations will be described<sup>3,4</sup>. Finally, adaptations of the Puerto Rican version of the PIADS will be proposed to successfully use this tool among groups of older Hispanics with low literacy levels. It is expected that the culturally appropriate recommended methods improve the understandability of the response format and diminish the trend toward extreme responses.

### References

- Orellano E, Jutai J. Cross-cultural adaptation of the Psychosocial Impact of Assistive Device Scale (PIADS) for Puerto Rican Assistive technology users. *Assistive Technology* 2013;25(4):194-203; doi:10.1080/10400435.2012.761292
- Orellano EM, Torres M, Varas N, Santiago A, Torres V, Benítez K, Jutai, J. Unraveling older adults' assistive technology use, needs, , preferences, and impact. Poster presented at the Assistive technology Industry Association (ATIA) 2015 Orlando, Florida, United States; 2015
- Bernal H, Wooley S, Schensul, JJ. Methodology corner: the challenge of using Likert scales with low income ethnic populations. *Nursing Research* 1997;46(3):170-181
- D'Alonso KT. Evaluation and revision of questionnaires for use among low-literacy immigrant Latinos. *Revista Latino-Americana de Enfermagem* 2011;19(5):1255-1264; doi:10.1590/S0104-11692011000500025

**Keywords:** assistive technology measurement, psychosocial impact, Hispanics

**Address:** University of Puerto Rico, Medical Sciences Campus, San Juan, Puerto Rico; E: elsa.orellano@upr.edu

*Table 1. Intention to use assistive technology for certain tasks from positive answers to the question "I would use this but do not have it"*

Task	Percentage
Cooking	46,6
Home tasks	37,3
Home safety	32,2
Dressing	31,7
Home accessibility	25,7
Personal hygiene	25,0
Medication	21,7
Reading	21,3
Mobility	20,9
Toileting	19,6
Communication	12,2