



## **FAST FACTS**

### **Assistive Technology Outcome Profile for Mobility (ATOP\M)**

#### **Description/Use:**

Self-report measure of the impact of mobility devices - such as prosthesis, cane, walker, scooter, manual wheelchair, power wheelchair - on the level of activity and participation of the user as defined by the International Classification of Functioning, Disability and Health. The ATOP\M item bank, which was developed based on Item Response Theory, comprises 68 items that cover physical performance (PP), instrumental activities of daily living (IADL), discretionary social participation (DSP), and social role participation (SRP). The tool allows comparison of the level of activity and participation “with devices” and “without devices” with differential scores.

#### **Population:**

The ATOP\M was initially developed with 1037 adult users of mobility devices aged between 18 to 80 years of age. The conditions that produced mobility impairment in this sample were cerebral palsy, multiple sclerosis, spinal cord injury and stroke.

#### **Type of Administration:**

Self-report with short forms (7 items each), long form (68 items) or computer-adaptive testing (number of items vary); validated for telephone administration. The Canadian-French version was validated for telephone administration using a parallel back translation procedure.

#### **Time to Administer:**

Administration by interview using the computer-adaptive version with CanWheel participants took an average of 10 minutes to administer the “with device” items and 15 minutes for the “without device” items.

#### **Response Scale:**

The “with device” items and “without device” items use a 5-level response scale

Are you able to \_\_\_\_\_(name of the activity or participation item)?

5=Without any difficulty

4=With a little difficulty

3=With some difficulty

2=With much difficulty

1=Unable to do

N/A=Not Applicable

## Scoring:

The computer-adaptive testing version generates a T-score that ranges between 0 and 100, with a mean of 50.

## Interpretation:

Interpretation based on the comparison of T-score with the general population of mobility device users.

80-100: the level of activity\ participation is more than three standard deviations above average

70-79: the level of activity\ participation is more than two standard deviations above average

60-69: the level of activity\ participation is more than one standard deviation above average

50-59: the level of activity\ participation is above average

40-49: the level of activity\ participation is below average

30-39: the level of activity\ participation is more than one standard deviation below average

20-29: the level of activity\ participation is more than two standard deviations below average

0-19: the level of activity\ participation is more than three standard deviations below average

## Relevant References:

1. Jutai JW, Southall K (2013). Measuring the Effectiveness of Assistive Technology on Active Aging: Capturing the Perspectives of Users, in *Technologies for Active Aging* (New York: Springer), pp. 95-104.
2. Auger, C., Jutai, J.W., Miller, W.C. Measurement properties of the ATOP/M for middle-aged and older adults who use power wheelchairs. Canadian Association on Gerontology, Vancouver, BC, October 20, 2012.
3. Jutai JW, End-user participation in developing the Assistive Technology Outcomes Profile for Mobility (ATOP/M), In: *Everyday technology for independence and care*, GJ Gelderblom et al., Amsterdam, IOS Press, 2011, 1026-1032.
4. Bode RK, Jutai JW, Heinemann AW, Fuhrer MJ., The Assistive Technology Outcomes Profile for Mobility (ATOP/M): Development of activity limitations and participation restriction item banks. *Archives of Physical Medicine and Rehabilitation*, 2010, 91(10), e36.

## For more information:

Jeffrey W. Jutai, PhD, CPsych  
Interdisciplinary School of Health Sciences  
University of Ottawa  
email: [jjutai@uottawa.ca](mailto:jjutai@uottawa.ca)