Attitudes toward elderly individuals with CNS trauma among healthcare professionals and neuroscientists: Recognition of ageist trends and needs for knowledge modification

Dr. Julio C. Furlan MD, MBA, MSc, PhD
Dr. Deepa Kattail MD
Dr. Michael G. Fehlings MD, PhD, FRCSC, FACS

Division of Genetics and Development,
Toronto Western Research Institute, University Health Network;
Spinal Program, Krembil Neuroscience Centre,
Division of Neurosurgery, University of Toronto
Outline

- Background
- Objectives
- Methods
- Results
- Conclusions
- Inferences
The aging population worldwide (1950 to 2050)

- Increasing rates of elderly
- Higher increasing in life expectancy among women than men


Source: Adapted from Oeppen J, Vaupel JW. Broken Limits to Life Expectancy. Science. 2002;296:1029-1031
Figure 3. Average Annual Traumatic Brain Injury-Related Rates for Emergency Department Visits, Hospitalizations, and Deaths, by Age Group and Sex, United States, 1995–2001
Traumatic Spinal Cord Injury in Ontario, Canada

William Pickett, PhD, Kelly Simpson, BSc, Janice Walker, MSc, and Robert J. Brison, MD, MPH

- New SCI hospitalizations in Ontario, Canada (fiscal years 1994/95 to 1998/9)
- Ontario Trauma Registry (N=2,385)

**Fig. 1.** Age-standardized rates of spinal cord injury hospitalizations in Ontario by sex, 1994/95 to 1998/99. Source: Canadian Institute for Health Information/OTR.

**Fig. 2.** Average annual age-specific rates of spinal cord injury over a 5-year period. Source: Canadian Institute for Health Information/OTR.

Age at the time of injury affects the mortality at acute and chronic stages of traumatic SCI:
Analysis of the NASCIS-2 database (N=485)

Furlan et al. (unpublished data)
Age did NOT adversely affect motor recovery at acute and chronic stages after SCI

Neurological Motor Recovery = 0.09x(Age) + 9.98
R-square = 0.0064 (p=0.1)

Unadjusted and adjusted for potential major confounders (i.e. gender, ethnic group, GCS, co-intervention, drug protocol, cause of SCI, level and severity of SCI)

Furlan et al. (unpublished data)
Age did NOT adversely affect sensory recovery at acute and chronic stages after SCI

Neurological Sensory Recovery = -0.02x(Age) + 15.46
R-square = 0.00009 (p=0.85)

Unadjusted and adjusted for potential major confounders (i.e. gender, ethnic group, GCS, co-intervention, drug protocol, cause of SCI, level and severity of SCI)

Furlan et al. (unpublished data)
This cross-sectional study examines attitudes towards elderly individuals among neuroscientists, clinicians, clinician scientists and health-allied professionals.
Methods

- Questionnaire-based survey among all National Neurotrauma Society (NNS) members:
  - **WHO are NNS Members?**
    “Membership in the organization is open to all scientists who are interested in conducting neurotrauma research”.
  - **WHAT is the mission of the NNS?**
    “The NNS is committed to the promotion of neurotrauma research by enhancing communications, providing a forum, and increasing support on the national and international level”.

[Image of the National Neurotrauma Society]

http://www.edc.gsp.pitt.edu/neurotrauma/mission.html
Methods

- Kogan’s Old People (KOP) scale
- **KOP+** (17 positively framed questions), and **KOP –** (17 negatively framed questions) randomly listed
- Two rounds of mailing survey

**KOGAN’S ATTITUDES TOWARD OLD PEOPLE SCALE**

Directions: Circle the LETTER on the scale following each statement, according to the following key, that is closest to your opinion of old people.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Slightly Disagree</th>
<th>Agree</th>
<th>Slightly Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It would probably be better if most people lived in residential units with younger people.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>2. Most old people are really no different from anybody else; they’re as easy to understand as younger people.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>3. Most old people are capable of new adjustments when the situation demands it.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
</tbody>
</table>

Results

- Neurotrauma Society members: \( n=504 \)
- Respondents: \( n=137 \)
  - **Gender**: 88 males and 49 females
  - **Age**: 27 to 79 years (mean of 48.8 years)
  - **Expert groups**:
    - Scientists (54.7%)
    - Clinicians (19.7%)
    - Clinician Scientists (22.6%)
    - Health Allied Professionals (RNs, PTs) (3%)
Results

- Overall response rate: **27.5%**

![Bar chart showing Kogan's People Scale](chart.png)

- KOP +
  - First Round: **Good**
  - Second Round: **Good**
  - p = 0.147

- KOP -
  - First Round: **Good**
  - Second Round: **Good**
  - p = 0.579
There were no significant differences between elderly (65 years of age or older) versus younger respondents.

\[ p=0.362 \quad \text{versus} \quad p=0.372 \]
Women had significantly greater KOP+ scores in comparison with men.

\( p=0.021 \quad \text{vs.} \quad p=0.305 \)
There were no significantly differences among subgroups according to work focus (i.e. spinal cord injury, traumatic brain injury, peripheral nerve trauma or others)

Kogan's People Scale

- p=0.563
- p=0.709

KOP +

- SCI
- TBI
- PNT
- Others

KOP -

- SCI
- TBI
- PNT
- Others
There were no significantly differences among subgroups according to experience in care for patients with CNS trauma.

- KOP +: p=0.261
- KOP -: p=0.709
Differences among expert groups in terms of attitudes toward elderly individuals with CNS injury

- **KOP+**
  - p=0.669

- **KOP-**
  - p=0.046
Conclusions

- Our results suggest that women who care for patients with CNS trauma have more positive attitudes toward elderly patients with neurotrauma than men.

- In addition, our data indicate that professional status influence attitudes toward elderly patients with neurotrauma in a negative manner.

- Age, experience and work focus were not significantly correlated with attitudes toward elderly patients with CNS trauma.
Further investigation is needed to better understand the factors that are associated with ageism among neuroscientists, clinicians and health-allied professionals.

Given that the proportion of elderly SCI patients is rising, our study would suggest that efforts be undertaken to overcome the potentially negative impact of ageism.

Strategies focused on knowledge transfer and modification of the most recent studies should be considered among health care professionals who work in the acute CNS trauma and rehabilitation centres.
Acknowledgements

Funding

- The Toronto General & Western Hospital Foundation
- Henry A. Beatty Scholarship (University of Toronto)
- Krembil Foundation

Thank you !!!