A Survey on Activities of Daily Living and Employment for Adults with Autism Spectrum Disorders in Taiwan

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Outline

- Background of this study
  - Overview of Current Conditions of Persons with Autism Spectrum Disorders (ASD) in Taiwan
- Sample
- Results
- Summary
- Limitations
- Conclusion
Background of this study

- a population of 23 million people in Taiwan

- the overall prevalence of people with disabilities in Taiwan has been estimated at 4.65% (TMOI, 2011)

- the annual rate of increase in ASD was 16.5% (TMOI, 2008)
Number of Persons with ASD in Taiwan

(TMOI, 2011)
Number of Persons with ASD by Age

- 0-5: 1050
- 6-11: 3893
- 12-17: 3179
- 18-29: 1896
- 30-44: 124
- 45+: 18

(TMOI, 2011)
## The Conditions of Welfare Services Institutions for all Individuals with Disabilities in Taiwan

<table>
<thead>
<tr>
<th>Night Accommodation Institutions</th>
<th>All-day Accommodation Institutions</th>
<th>Day Service Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>158</td>
<td>86</td>
</tr>
</tbody>
</table>

(TMOI, 2011)
Background of this study

- Adult Outcomes:
  - Functional Independence
    - living arrangement
    - high levels of assistance and care

(Eaves & Ho, 2008; Esbensen et al., 2010; Howlin, 2000; Howlin et al., 2004; Seltzer & Krauss, 1989; Seltzer et al., 2000; Taylor & Seltzer, 2011)
Background of this study

- Adult Outcomes:
  - Occupation
    - a low rate of employment
    - tended to work in menial jobs

(Ballaban–Gil et al., 1996; Billstedt et al., 2005; Ellison et al., 2005; Eaves & Ho, 2008; Howlin et al., 2004; Taylor & Seltzer, 2011)
Research in Taiwan is limited.

Chang (1996) reported that:

- 80% of 91 adolescents and adults with ASD lived with their nuclear families
- they could not independently care for themselves
- only 9.9% of them had part-time jobs
Aim

- To investigate outcomes related to functional independence and employment among people with ASD in Taiwan
Research Questions

- What activities do adults with ASD do in their daily living?
- Are adults with ASD employed?
- What kind of jobs do adults with ASD have?
Sample

- We enrolled 81 people with ASD and their caregivers/guardians in southern Taiwan.

- People with ASD had been diagnosed by a medical or mental health professional using the Diagnostic and Statistical Manual IV (DSM–IV) criteria (APA, 1994).
Male to Female ratio = 5.7:1

Mean (SD) = 22.8 (5.7)

Sample

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Men</th>
<th>Women</th>
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<tr>
<td>18-20</td>
<td>31</td>
<td>4</td>
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<tr>
<td>21-25</td>
<td>24</td>
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<td>26-30</td>
<td>12</td>
<td>2</td>
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<tr>
<td>31+</td>
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</table>

- Mean (SD) of the sample is 22.8 with a standard deviation of 5.7.
- The gender ratio is 5.7:1, favoring males.
- The age distribution shows a peak in the 18-20 age group for both males and females.
Measures

- A modified version of Barthel Index (Mahoney & Barthel, 1965)
- Frenchay Activities Index (FAI) (Holbrook & Skilbeck, 1983)
- Current information on the employment status, occupational activities, vocational training programs, and types of jobs of the adults with ASD
Results: Self-care activities

- Feeding/eating: Does tasks independently 90%, Needs assistance 10%
- Bathing: Does tasks independently 95%, Needs assistance 5%
- Grooming: Does tasks independently 90%, Needs assistance 10%
- Dressing: Does tasks independently 95%, Needs assistance 5%
- Toileting: Does tasks independently 85%, Needs assistance 15%
- Mobility: Does tasks independently 85%, Needs assistance 15%
The Most Frequent Instrumental Activities of Daily Living

- Walking outside more than 15 mins: 92.7%
- Light housework: 89%
- Local shopping: 86.6%
The Instrumental Activities of Daily Living Persons with ASD
Have Never Done or Been…

- Maintained a household or a car: 83%
- Gainfully employed: 77%
- Prepared main meals: 71.6%
- Done laundry: 53.1%
- Done gardening: 52%
- Actively pursued an outdoor hobby: 51%
Employment Status and Occupational Activities

- Employment: < 20 hours per week: 7%
- Employment: ≥ 20 hours per week: 6%
- Schooling: 5%
- Staying at home: 82%
<table>
<thead>
<tr>
<th>Categories</th>
<th>Autistic Disorder</th>
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<th>Asperger’s Syndrome</th>
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<th>PDD–NOS</th>
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<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
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<td>9.2</td>
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<tr>
<td>≥ 20 hours per week</td>
<td>4</td>
<td>6.2</td>
<td>1</td>
<td>8.3</td>
<td></td>
<td></td>
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<tr>
<td>Schooling</td>
<td>3</td>
<td>4.6</td>
<td>1</td>
<td>8.3</td>
<td></td>
<td></td>
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<tr>
<td>Staying at home</td>
<td>52</td>
<td>80</td>
<td>10</td>
<td>83.3</td>
<td>4</td>
<td>100</td>
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</tbody>
</table>

PDD-NOS, Pervasive Developmental Disorder-Not Otherwise Specified.
Types of Occupations

- food and beverage service (n = 5)
- baking (n = 2)
- cleaning (n = 2)
- music (n = 1)
- baggage handler (n = 1)
Difference in Level of Functional Independence

FAI scores

- employed/schooling (n = 15)
  - FAI score: 42.9

- unemployed (n = 66)
  - FAI score: 30.8

\( F = 23.3, \ p < .001 \)
Summary–1

- All persons with ASD lived with their caregivers or guardians.
- About 80% of the participants with ASD could independently take care of themselves.
Summary–2

- The ability to engage in instrumental activities of daily living may be an outcome indicator.

- Most of the participants with ASD were unemployed, stayed at home, and were cared for by family members.
Summary-3

- Only 11 of the participants with ASD were employed and four were attending school.
- Employed participants with ASD tended to have menial jobs.
Limitations

- Small sample size
- No comparison group
- Better to evaluate individuals with ASD directly
Conclusion

- The results of this survey study provide information to support the design of adequate interventions to meet the needs of adults with ASD, particularly those in Taiwan.

- Future research using larger study populations with a comparison group is needed.
Acknowledgement

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Thank you for your attention!

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