

ABSTRACT

The purpose of this poster session is to examine the influence of rurality on parent satisfaction with school and health services and access to specialized services and knowledgeable professionals.

INTRODUCTION

- Autism spectrum disorders (ASD) significantly impair children's social and communication development.
- Importance of early identification and intervention is clearly established for positive outcomes (American Academy of Pediatrics, 2001).
- Limited information is available on the accessibility of services that promote positive outcomes
- Research suggests that access to specialized services is problematic, especially for those living in rural areas
- Research indicates that disparities exist between the number of available behavioral health professionals in rural areas compared to their urban counterparts
- Research suggests that individuals with ASD in rural areas are diagnosed at a later age than their urban counterparts

OBJECTIVES

- To examine the influence of rurality on the following variables:
 - a) age at diagnosis;
 - b) age treatment began;
 - c) satisfaction with educational services;
 - d) access to services; and
 - e) prioritized needs for specific services.
- Based on prior research, two hypotheses were explored:
 - First, it was hypothesized that the age of diagnosis of children living in rural areas will be later than the age of diagnosis of children from urban areas.
 - Second, it was hypothesized that later age of diagnosis is associated with later age of onset of intervention.
 - Due to the limited research related to parental satisfaction of services in rural areas, no a priori predictions are made.

METHODS

- The data came from an existing data set (Ruble & McGrew, 2007) that was originally designed to evaluate caregivers' experiences with the service system within one state.

Participants

- Data came from parents/caregivers living in 46 counties
- 113 parents/caregivers of children with ASD completed the survey.
- Participants were representative of the population sample in terms of demographic characteristics except for education and income levels that were slightly higher than typical for the state.

Procedure

- Surveys were provided to participants across a variety of means including parent support groups, mail-based surveys from existing data bases, at special education meetings across the state, and listservs for parental support groups.
 - Parents completed the survey online or in paper and pencil
- ### Instrumentation
- Demographic information was collected at the beginning of the survey.
 - Rurality of a county was based on the Rural-Urban Continuum Codes, which takes into account proximity to a metropolitan area as well as population size (Butler & Beale, 1994).
 - The codes were dichotomized into metropolitan (codes 1-3) and non-metropolitan (4-9) to allow for larger group sizes.

Survey

- 43-item questionnaire of parental report of services received in the past six months (See Table 1 for variables).
- Parents were asked to respond to the items using a Likert-type scale where they rated the level to which they agreed to the statements listed (1 being strongly disagree, 5 being strongly agree).

Table 1. Dependent Variables.

| Dependent Variable | Survey Items |
|--|---|
| Satisfaction with Educational Services | Overall, I am happy with my child's educational program at school. |
| Access to services | I am able to access the services my child needs within my community. I am able to access the services my child needs within 30 miles. |
| Access to trained professionals | Finding physicians or professionals in my area of the state who are trained in treating autism spectrum disorders has not been a problem for me. |
| Access to trained educators | I have had no problem finding educators in my area who are trained in the latest methods of teaching children with autism spectrum disorders. |
| Parent report of prioritized needs for specific services | Rank-order a list of seven services (i.e., respite care, speech and language therapy, social skills therapy, occupational therapy, counseling, case management, in-home therapeutic support, and behavior management) on a scale from 1 to 7, with 1 being their highest priority or need, and 7 being their lowest priority or need. |

Data Analysis

- Data were not normally distributed, therefore, non-parametric statistical tests were used, including the Mann-Whitney U-test and Chi-square analyses. A p -value of less than .05 was used to determine if the findings were significant.

RESULTS

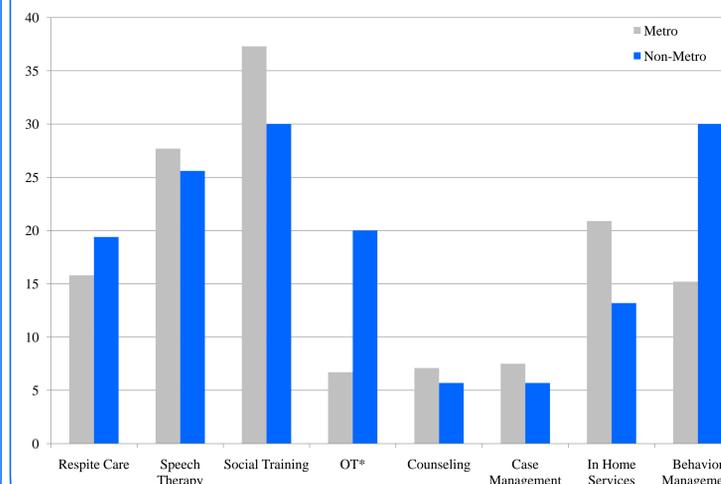
- No significant differences were observed between the metro and non-metropolitan groups for the age the child was diagnosed, the age treatment began, or parental satisfaction with educational services.
- Significant findings across the two groups included:
 - Reported ease of finding a physician or professional in their area who was trained in treating autism spectrum disorders ($p = .03$, See Table 2), and average parental ranking of behavior services identified as being in high need ($p = .01$).
 - Priority of behavior management differed significantly across the two groups such that participants in metropolitan counties rated this as a significantly lower need than participants in non-metropolitan counties.

Table 2. Results of Mann-Whitney U-Test for Variables of Interest.

| Variable | M _{metro} | M _{non-metro} | p-value |
|---|--------------------|------------------------|---------|
| Age at diagnosis | 3.67 | 3.63 | .91 |
| Age treatment began | 3.66 | 3.16 | .37 |
| Satisfaction with educational services | 3.02 | 3.26 | .326 |
| Access to services | 2.56 | 2.53 | .78 |
| Access to trained professionals | 2.38 | 1.79 | .03* |
| Access trained educators | 1.90 | 2.00 | .88 |
| Ranking of the priority of behavior management services | 4.63 | 3.35 | .01* |

*= $p < .05$

Figure 1. Percentage of Parents Ranking Service as Highest Priority by Metro and Non-Metro Groups



*= $p < .05$

DISCUSSION

- Findings do not replicate earlier studies demonstrating children with autism in rural areas are diagnosed at a later age than those in urban areas, or have more restricted access to trained educators.
- Findings are consistent with previous research that has repeatedly demonstrated that individuals living in rural or non-metropolitan areas have access to fewer helping professionals.
- Findings suggests that individuals with ASD in rural or non-metropolitan areas, similar to those with other disabilities or psychiatric problems, have access to fewer trained professionals.
- In comparison to parents in metropolitan areas, parents in non-metropolitan areas noted that services related to behavior management were in the highest need for their child.
- Highlight the importance of public school services for children with ASD, as they indicate that it is difficult for families to have access to services outside of schools.
- Future research:
 - More research is needed that specifically chronicles resources for families and children with ASD in rural areas, as well as highlights the need of evaluations of the services offered to children with ASD in the public school system.
- Limitations:
 - Multitude of methods to ascertain data. Because parents were sampled from support groups, listservs, etc., a true representation of the population may not be included in our sample.
 - Selection bias, which poses a threat to internal validity. Because participants were not randomly selected into groups (i.e., rural vs. urban), the results may have limited generalizability.

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