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Examination of NY state educators years of employment and knowledge of Autism Spectrum Disorder (ASD)

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Introduction

Background

- Autism spectrum disorder (ASD) is currently diagnosed in about 1 in 44 children, an increase in prevalence estimates over recent decades (Maenner, 2021).
- Educators serve autistic students across diverse classroom environments, including increasingly in general education settings (NCES, 2021).
- While it has been suggested that educator knowledge about ASD may impact effectiveness in working with autistic students, efforts to understand knowledge gaps and implications have been hindered by methodological issues such as small samples and inconsistent or unvalidated measurement of ASD knowledge (Gomez-Mari, 2021; Harrison, 2016).

Study Aim

- Hypothesis: more years of employment would be positively correlated with knowledge of ASD.

Materials and methods

Materials and procedure

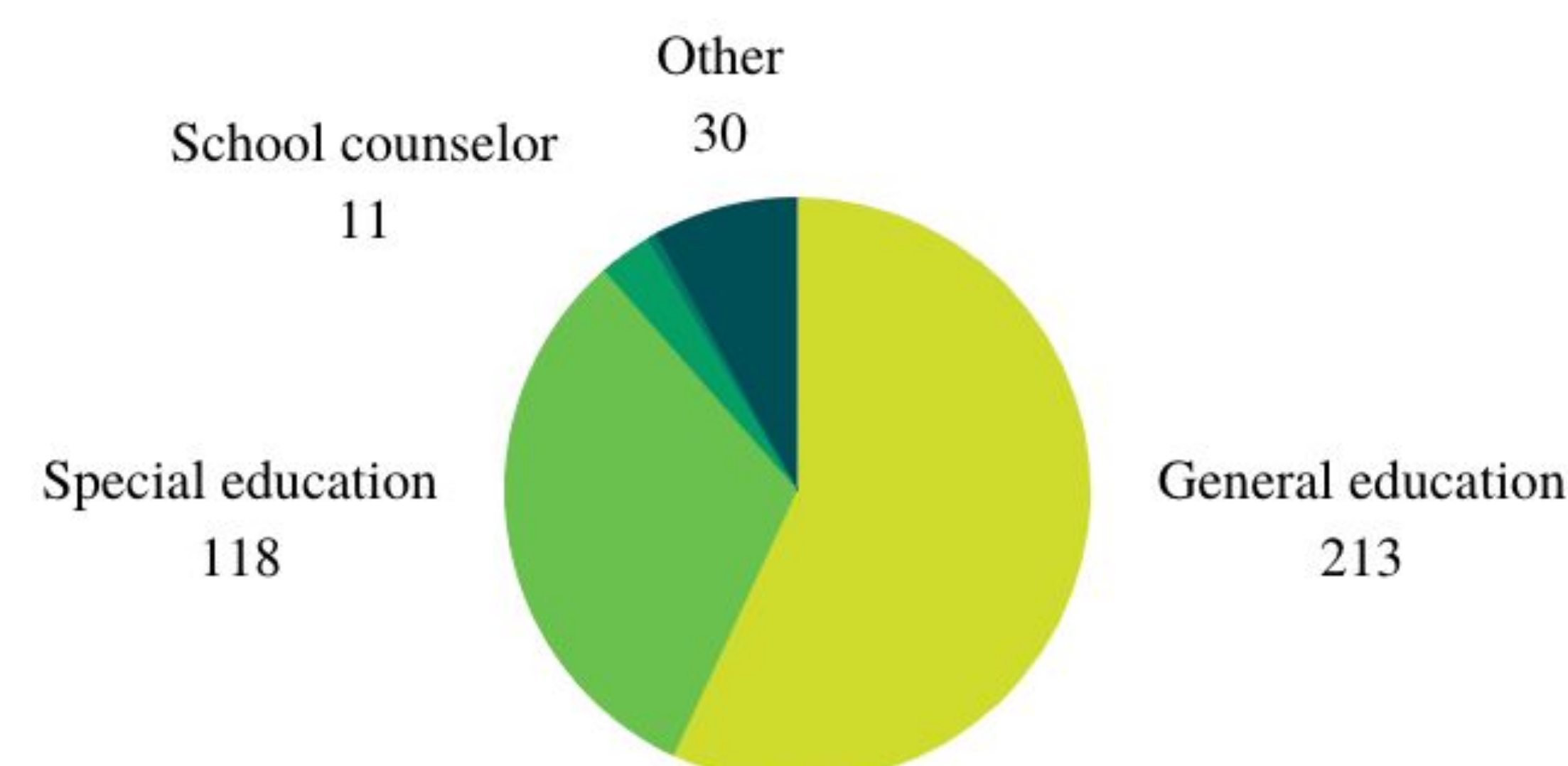
- Autism Knowledge measured by the ASK-Q
 - Measure validated and designed to reliably identify gaps in ASD knowledge across cultures and professions (Harrison, 2017)
 - 4 subscales: diagnosis and symptoms, etiology, treatment, and stigma.
- Online survey through qualtrics.

Participants

- $N = 389$ New York State educators.
 - Years of employment: range 1-42 years; $M=16.71$ ($SD=9.236$)
 - Age: range 23-70 years; $M=44.07$ ($SD=11.475$)

Figure 1

Educator type



Results

Table 1

Correlations between years of employment and knowledge subscales

| ASK-Q Subscale | r | p |
|--------------------|-------|------|
| Diagnosis/Symptoms | -.052 | .305 |
| Etiology | -.055 | .278 |
| Treatment | .007 | .898 |
| Stigma | .023 | .646 |

*Correlation was significant at the 0.01 level (2-tailed).

Figure 2

Categorization of educators by knowledge level on ASK-Q subscales

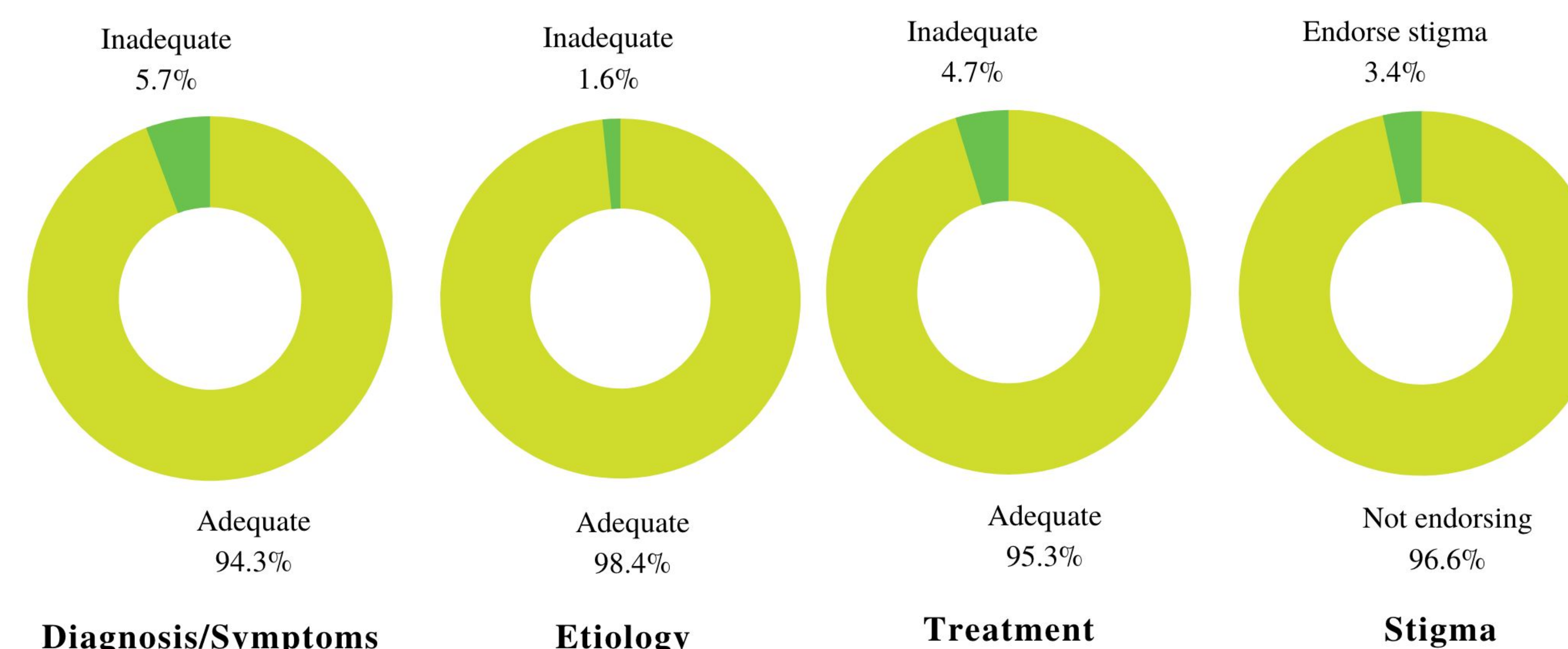


Figure note: Graphs show the percentage of participants meeting the ASK-Q criteria for “Adequate” levels of ASD knowledge (Harrison, 2017).

Literature Cited

- Maenner, M. J. (2021). Prevalence and Characteristics of Autism Spectrum Disorder Among Children Aged 8 Years—Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2018. *MMWR. Surveillance Summaries*, 70. <https://doi.org/10.15585/mmwr.ss7011a1>
- National Center for Education Statistics. (2021). Students With Disabilities. Condition of Education. U.S. Department of Education, Institute of Education Sciences. Retrieved 2022, from <https://nces.ed.gov/programs/coe/indicator/cgg>.
- Harrison, A. J., Bradshaw, L. P., Naqvi, N. C., Paff, M. L., & Campbell, J. M. (2017). Development and Psychometric Evaluation of the Autism Stigma and Knowledge Questionnaire (ASK-Q). *Journal of autism and developmental disorders*, 47(10), 3281–3295. <https://doi.org/10.1007/s10803-017-3242-x>
- Gómez-Mari I, Sanz-Cervera P, Tárraga-Minguez R. Teachers' Knowledge Regarding Autism Spectrum Disorder (ASD): A Systematic Review. *Sustainability*. 2021; 13(9):5097. <https://doi.org/10.3390/su13095097>
- Shetty, A.; Rai, S. Awareness and Knowledge of Autism Spectrum Disorders among Primary School Teachers in India. *Int. J. Health Sci*. 2014, 4, 80–85.

Discussion

Interpretation

- Basic knowledge about ASD did not appear to vary based on years of experience (Table 1).
 - Preliminary analyses also did not suggest variability in ASD knowledge explained by educator type (general education vs. special education).
- The sample largely demonstrated “adequate” knowledge levels across subscales, without large variation (Figure 2).
 - Knowledge level cutoffs were established using factor analysis, a statistical method of reducing and summarizing data (Harrison, 2017).
- These findings are in contrast with previous work which suggests that experience generally has a strong positive correlation with knowledge (Shetty, 2014, Gómez-Mari, 2021).

Limitations

- The ASK-Q is standardized for the international lay public, and may not discriminate knowledge variability in trained professionals as well as it does in a more general community sample (Harrison, 2017).
 - Results may reflect the long history and educator training efforts in NY state.
- Knowledge assessed by the ASK-Q does not provide assessment of actual educator practices.

Future directions

- Examine the relationship between educator years of employment and knowledge of evidence-based classroom strategies to support their autistic students.

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