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Knowledge of Autism Spectrum Disorder in Medical Students and Residents

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Knowledge of Autism Spectrum Disorder in Medical Students and Residents

Submitting/Presenting Author (must be a trainee): Laura K. Hansen, Ph.D.

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Resident/Psychology Intern (≤ 1 month of dedicated research time)

Resident/Ph.D/post graduate (> 1 month of dedicated research time)

Fellow

Primary Mentor (one name only): Cy Nadler, Ph.D.

Other authors/contributors involved in project: Tammy Barry, Ph.D.

IRB Number: N/A

Describe role of Submitting/Presenting Trainee in this project (limit 150 words):

This project involves data that were collected as part of my dissertation, which examined autism literacy in parents, teachers, and medical students/residents. My role included conceptualizing the project, collecting and analyzing data, and writing the results and conclusions under the supervision of my dissertation chair, Tammy Barry, Ph.D.

Background, Objectives/Goal, Methods/Design, Results, Conclusions limited to 500 words

Background:

As autism spectrum disorder (ASD) is diagnosed more frequently, possessing accurate literacy of the disorder becomes increasingly important for physicians. Previous research indicates that compared to a group of ASD specialists, medical professionals (including primary care practitioners) were more likely to maintain incorrect beliefs regarding certain components of ASD (Heidgerken et al., 2005). For example, non-ASD specialists were less likely to believe children with ASD share social attachments/affectionate behaviors with caregivers and peers. This study suggests individuals in the medical field, particularly those who do not frequently work directly with individuals with ASD, may hold incorrect and inaccurate beliefs about ASD and may not be aware of their lack of knowledge.

Objectives/Goal:

The primary goal of the current study was to investigate perceived and actual knowledge of ASD possessed by medical students and residents. Correlates of knowledge were also explored.

Methods/Design:

A heterogenous sample of 142 medical students and residents from across the United States completed a battery of assessments including a demographic survey and A Survey of Knowledge of Autism Spectrum Disorder (ASK-ASD; Hansen, 2015), assessing perceived and actual knowledge of ASD. 67.2% of the sample identified as "white" and the remaining portion of the sample identified as a race other than white. The sample was 61.7% female, with an average age of 27.51 ($SD = 4.68$), and 9.5% of the sample had children. Approximately 26.9% of the sample reported having received

training about ASD (e.g., medical school lectures, working at an ASD-specific summer camp) and 39.8% reported having previously worked with individuals with ASD.

Results:

Participants’ actual knowledge of ASD was high (84% accurate), and participants perceived themselves to be moderately knowledgeable ($M = 1.95, SD = .34$). The correlation between perceived and actual knowledge was significant, $r = .21, p = .01$, indicating that when knowledge was higher, so was their confidence in their knowledge. Notable correlations with other demographic variables are presented in Table 1.

	Race	Biological Sex	Experience	Current year in medical training program	Having children	Training
Actual Knowledge	.11	-.11	.23**	.05	-.10	.19*
Perceived Knowledge	-.02	.01	.16	.05	.05	.37**

Conclusions:

Generally, participants were highly knowledgeable regarding ASD and higher levels of knowledge were associated with higher confidence in their own knowledge levels. Nevertheless, this correlation was modest. Additionally, analyses revealed that medical trainees who received ASD-specific training and/or worked with individuals with ASD had higher levels of accurate knowledge of the disorder compared to those who did not. Perceived ASD knowledge was significantly correlated with training, but not experience. Interestingly, participants’ current training year was not significantly correlated with either perceived or actual knowledge, suggesting participants’ knowledge did not necessarily increase as they received more medical training. Limitations of the study include the online survey format and single time point design.