

Attitudes, Perceptions, and Awareness of Professional Needs Among Entry-Level Medical Students as Future Service Providers for Individuals with Autism Spectrum Disorder (ASD)

ABSTRACT

Autism spectrum disorder (ASD), a lifelong neurodevelopmental disorder, presents with impairments in social communication and interaction as well as areas of behavior, interests or activities that are restricted or repetitive. The reality that many of these individuals will need some level of support throughout their lifetime, is the emerging challenge for caregivers as well as support services and health professionals. The rising prevalence of ASD, recorded to be 1 in 59 in the United States, and its associated medical and mental comorbidities (e.g., pulmonary/respiratory, gastro-intestinal, seizures), make it relevant for medical professionals to have adequate knowledge and appropriate perceptions of the special health needs of individuals with ASD starting at the inception of their medical training. This will ensure that individuals with ASD receive appropriate treatments, integrated care, and access to preventative care and intervention. Measuring and predicting changes in the knowledge and attitude of health professionals who support this population is therefore imperative. This study examines the knowledge, perceptions and attitudes of entry level medical students at a Midwestern campus, using the Survey of Autism Awareness and Practice (SAAP) in Medicine.

BACKGROUND

With a prevalence rate of 1 in 59 in the United States (Baio et al., 2018), physicians and other healthcare professionals have an increased chance of encountering and serving an individual with autism spectrum disorder (ASD) within their daily job duties. Individuals with ASD rely strongly on support from these care providers for accurate and appropriate diagnoses as well as reliable and effective treatment. In addition to the medical services rendered, healthcare professionals must be equipped with the necessary knowledge, attitude and confidence to communicate with the families of these individuals.

The reality that many individuals with ASD will need some level of support throughout their lifetime (Bruder et al., 2012), is the emerging challenge for familial and non-familial care providers such as physicians. The complexities of ASD make this responsibility one that can come with unexpected challenges, uncertainties, and immense stress—leading to compromised care. Research indicates that being unprepared, uncomfortable, and even overwhelmed when serving patients with ASD are common emotions for healthcare providers. On the contrary, healthcare providers who serve adults with ASD strongly advocate for more resources and training (Bruder et al., 2012), which can increase their knowledge and competencies when interacting with this population. It is clear that very few physicians and healthcare professionals have received adequate training in the care of individuals with ASD and lack a solid knowledge base.

With preservice training, it has been demonstrated that these barriers can be reduced. Heidgerken et al. (2005) found that primary healthcare providers often exhibit beliefs about ASD that are outdated or related to previous diagnostic criteria. It is, therefore, important for these healthcare professionals to have adequate knowledge of ASD and to adopt an appropriate perception of and attitude towards individuals with ASD to best support their medical preventative care and ongoing intervention needs.

The current study assesses the baseline knowledge, perceptions and attitudes of entry level medical students who attended a one- day service learning program at a Midwestern medical campus.

RESEARCH QUESTIONS



1. What are the initial attitudes of first-year medical students regarding autism spectrum disorder and care provided to this population?
2. Which, if any, demographic characteristics influence the attitudes of first-year medical students in relationship to autism spectrum disorder?

MATERIALS and METHODS

Participants

The Survey of Autism Awareness and Practice (SAAP) in Medicine was completed by first-year medical students beginning at a Midwestern medical campus. Participants had self-selected to participate within a service learning opportunity hosted by their university in collaboration with the HANDS in Autism® Interdisciplinary Training & Resource Center as part of the Department of Psychiatry. From among 70 first-year student attendees, 54 surveys were completed and returned with an approximately 77.1% response rate. Of these respondents, 81.5% (n= 44) were 18–24 years of age and 18.5% (n=10) were 25–34 years of age. See Table 1 for additional demographic information.

Procedures

The Survey of Autism Awareness and Practice (SAAP) in Medicine is an internally developed, 74-item survey used to assess the knowledge, awareness, perceptions, attitudes, preferences and needs of healthcare professionals (e.g., physicians, nurses, EMTs, etc.) and care providers (e.g., social workers, office staff, etc.). The SAAP is comprised of multiple sections to collect information about personal demographics, current and past role(s) and setting(s), relevant training(s), familiarity and/or use of evidence-based strategies, attitudes and knowledge related to ASD.

In this study, five of the 14 attitude statements were of focus. Questions in this section include statements such as “I am comfortable in providing care to individuals with ASD or related developmental disabilities” and “I would benefit from training in providing care to individuals with ASD or related developmental disabilities.” Table 2 includes a listing of the statements used for analyses in the current study. The respondent was instructed to rate each item on a 5-point, Likert-type scale (i.e., 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree). The responses were scored such that ratings of 1-2 reflected disagreement, 3 as neutrality, and 4-5 indicated agreement with the statement. Surveys were completely anonymously and returned in person to the researchers during the course of the service learning opportunity.

Table 2. Attitude statements used for analyses

Number	Construct	Statement
1	Comfort	I am comfortable providing care to individuals with ASD or related developmental disabilities.
2	Confidence	I am confident in my ability to provide appropriate care to individuals with ASD or related developmental disabilities.
3	Access to tools	I have access to tools that I can use when providing care to individuals with ASD or related developmental disabilities.
4	Seeking information	I know where to find information about ASD or related developmental disabilities if needed.
5	Benefit from training	I would benefit from training in providing care to individuals with ASD or related developmental disabilities.

Table 1. Respondent Demographics

Categories	%
Gender	
Male	55.6
Female	44.4
Age	
18 - 24 years	81.5
25 - 34 years	18.5
Ethnicity/Race	
Asian American or Pacific Islander	15.1
Black/African American	3.8
Latino/Hispanic	3.8
White/Caucasian	67.9
Two or More	9.4
Highest Level of Completed Education	
Some College	4.3
College Degree	69.6
Some Graduate Studies	6.5
Master's Degree	15.2
Other	4.3

RESULTS

- Preliminary Chi-Square analyses revealed no statistically significant relationship (p 0.472 – 1.000) between respondent demographics and attitudes.
- Respondents overwhelmingly disagree (62.5%) that they are confident in their ability to provide services to individuals with ASD (See Figure 1).
- First-year medical students recognize they need to receive training (52.2%) in order to provide care to individuals with ASD (See Figure 1).
- Respondents equally disagree (43.5%; See Figure 1) that they have access to tools for use when providing care or that they know where to find information about ASD.
- Although greatly varying, 40% of respondents agreed with the statement assessing their comfort level in providing care to this population suggesting a feeling of comfort in providing care to individuals with disabilities.

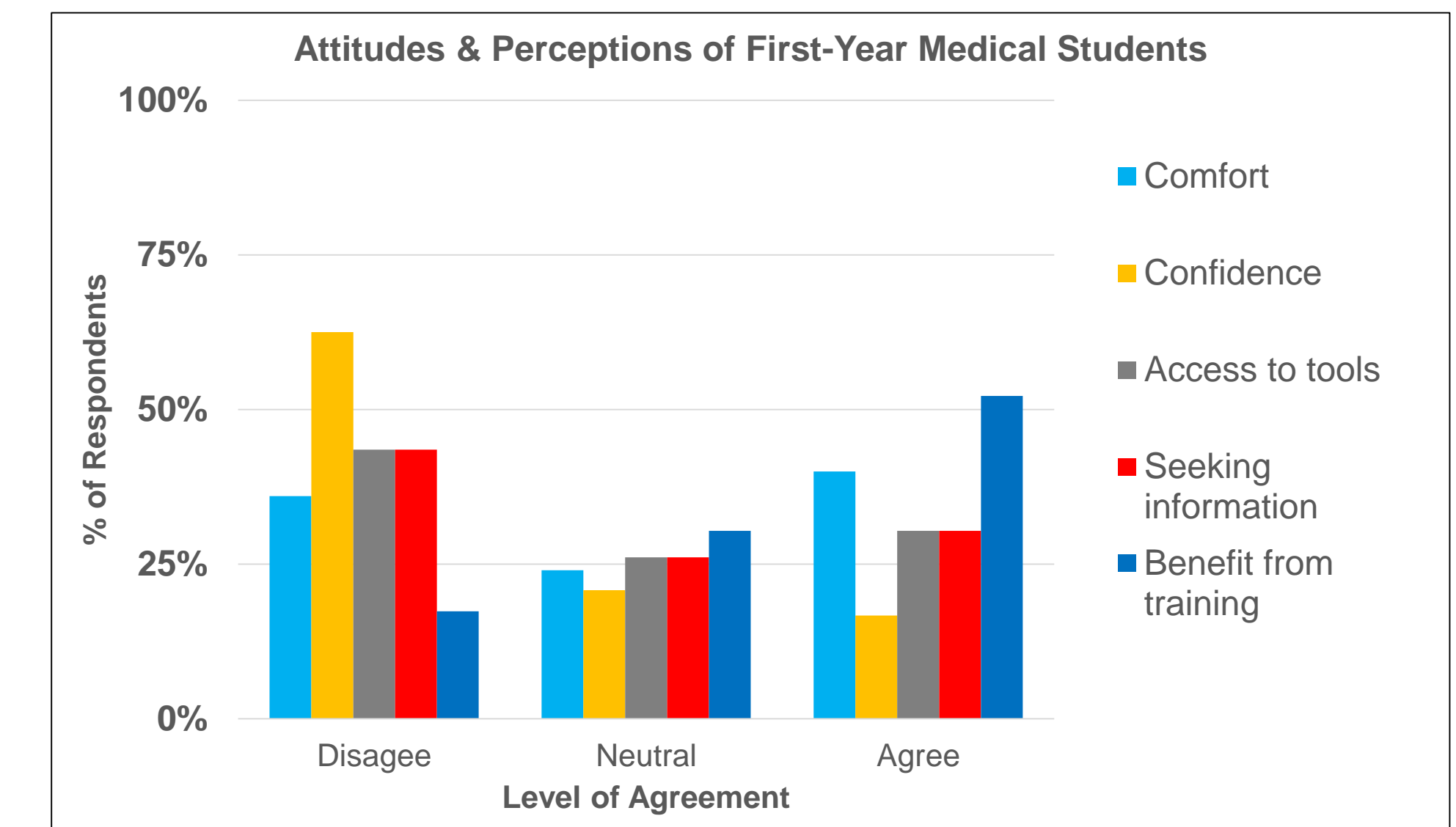


Figure 1. Attitudes and Perceptions of First-Year Medical Tools

DISCUSSION/CONCLUSION

Healthcare professionals play a fundamental role and need to have foundational knowledge of ASD in areas including but not limited to symptomology, communication and behavioral strategies, as well as resources for individuals with ASD. For physicians, training on and exposure to ASD and related disabilities should be implemented from the inception of their medical training to elicit recognition of the complexities of ASD, to ensure adequate care, to address potential biases or discomfort and to improve navigation and patient outcomes. Medical schools are seeking to increase studies on disabilities, including ASD, within their course of study. Increasing the quality of care amongst healthcare professionals, particularly physicians, can increasingly influence positive change towards treatment, caring for special populations, use of evidence-based strategies and integrated care for patients with ASD. Based upon results from this study, first-year medical students demonstrate agreement with statements related to the benefit of additional training on ASD and related disabilities to improve their confidence, comfort and additional perceptions of this population. Added curriculum related to ASD and disabilities will assist in fostering a change in provider competency, attitudes and perceptions with secondary benefit as it pertains to improved outcomes (e.g., increased access to resources, increased satisfaction with care) in the lives of individuals with ASD and their families, areas of focus in future study.

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