https://doi.org/10.36315/2025inpact119
Psychological Applications and Trends 2025

A COMPARATIVE STUDY OF PUBLIC PERSPECTIVES ON AUTISM FROM 2015 TO 2023

Adam Blancher*, & Michelle Yetman*
School of Allied Health Professionals, Louisiana State University Health – Shreveport (USA)
**PhD*

Abstract

In 2015, Mitchell and Locke developed a survey assessing knowledge of autism sources, causes, diagnosis age, treatments, testing, and diagnostic symptoms. Utilizing Amazon's MTURK platform, they gathered responses from Americans and Canadians (N = 823) and found adequate autism knowledge. Blancher and Yetman (2023) administered Mitchell and Locke's original survey to a separate sample of Americans and Canadians (N = 858) to compare knowledge between the general population and medical students. The present study used data from these two published studies to conduct a comparative analysis using z-tests of two independent proportions. We analyzed survey response percentages from 2015 (Group 1) and 2023 (Group 2) samples to examine changes in autism knowledge within the general population over time. Regarding sources of information, media remained the top source of information about autism in both samples, but knowledge from doctors, clinics, schools, and personal experiences (8% to almost 32%) significantly increased in Group 2. Genetic and neurological causes continued to be the most commonly reported etiology of autism, while belief in vaccines as a cause declined significantly in Group 2 (4%). In regard to age of onset, participants in both groups accurately identified the age of onset for autism as 18-24 months, with no significant changes between the two samples. Doctors remained the top-rated resource for help in both years, and reliance on the internet and parent organizations decreased in favor of health departments and early interventionists. Regarding diagnostic testing, psychological, educational, and developmental assessments were consistently viewed as the most appropriate methods for evaluating autism, while ratings for speech and language evaluations and blood work declined. Good symptom knowledge was noted in both groups; however, there was a slight decrease in correctly identifying non-diagnostic traits such as illogical thinking and violent behavior. Concerning intervention, behavioral therapies and parent training were rated as the most effective treatment options in both years, with a significant increase in the endorsement of play therapy in Group 2. Perceptions of drugs as an appropriate treatment option decreased notably (19.8% to 11.0%), while physical exercise gained greater support in the 2023 sample. The comparison of Group 1 and Group 2 survey data highlights positive shifts in public understanding of autism; however, errors and misperception persist. These findings support the importance of ongoing public education efforts and leveraging platforms like social media to enhance awareness and support for autistic individuals.

Keywords: *Autism, community education, lay beliefs, autism awareness, MTURK.*

1. Introduction

Autism is a complex neurodevelopmental condition that continues to attract research and public interest (American Psychiatric Association, 2022). Limited studies have explored autism awareness and beliefs in the U.S. public (Furnham & Buck, 2003; Holt & Christenson, 2013; Mitchell & Locke, 2015). Mitchell and Locke (2015) investigated public perceptions to address misconceptions and improve support systems, finding that while awareness was generally good (e.g., autism as genetic, neurological, diagnosable in early childhood, and treatable), gaps remained—10% of the sample still incorrectly linked autism to vaccines. Shifting ASD prevalence rates highlight the need to reassess public knowledge. The CDC reported rates of 1:54 in 2016, 1:44 in 2021 (Maenner, Shaw, Bakian, et al.), and 1:36 in 2023 (Maenner, Warren, Williams, Amoakohene, Bakian, et al.). This study aimed to compare public beliefs about autism in 2015 and 2023, identifying changes, continuities, or emerging trends over time.

2. Method

2.1. Participants and procedure

Data was obtained from Mitchell and Locke (2015; Group 1) and Blancher and Yetman (2023; Group 2) samples. Mitchell and Locke reported a North American (US and Canada) public sample of 823 participants. Blancher and Yetman's sample consisted of 858 participants. Both samples required participants to complete a survey through Amazon's Mechanical Turk (MTurk) website. Each individual participant who anonymously completed the study survey and a validity question were included in the final samples. In Group 1 (n = 823), there were 336 males and 487 females, whereas Group 2 (n = 858) included 170 males, 684 females, and 4 individuals who preferred not to disclose their gender. The mean age in Group 1 was 32.7 years, with participants ranging from 18 to 77 years old. Group 2 ranged from 15 to 78 years. Regarding ethnicity, GRoup 1 was 77.8% White, 7.2% Black, 4.3% Hispanic, 6.4% Asian, and 4.5% identified as Other. In comparison, the Group 2 was 73.7% White, 9.9% Black, 6.3% Hispanic, 8.9% Other, and 1.2% preferred not to disclose their ethnicity, with Asian representation not reported.

3. Results

Table 1 (listed at the end of the article) displays the results for Group 1 (2015) and Group 2 (2023). Z-tests of two independent proportions were conducted using the statistical calculator provided by Epitools (n.d.). We compared the percentage of responses for each option of the 2015 sample and 2023 respondent sample. Results are presented as percentage of responses and bolded numbers indicate a statistically significant difference between groups (p-value criterion set at < .01). Furthermore, only the statistically significant differences are listed in the table.

3.1. Source of information

Media remained the highest reported source of information for both groups. Although this was a major concern for Mitchell and Locke, significant improvements from 2015 to 2023 in knowledge related to sources of information from doctors, hospitals, and clinics as well as schools, work, and professional organization were noted. Also, information from personal experience increased dramatically (8% to almost 32%) as well as from friend, neighbor, or family. Interestingly, there was a significant decrease in the "unsure" category as respondents appeared more knowledgeable regarding autism.

3.2. Main causes

Genetic and neurological causes remained the highest reported causes of autism. However, a significant change in beliefs about vaccines contribution to the onset of autism from 2015 to 2023. Although there was a significant increase in family's contribution to causes of autism, this was generally negligible.

3.3. Age of onset

No significant age of onset differences was noted, and knowledge of age of onset continues to be accurate at 18-24 months with the highest percentage of individuals rating this time period for both groups.

3.4. Where to go for help?

The highest rating continued to be the doctor 2015 sample (64%) and 2023 (67.8%). Seeking the internet and parent organizations appeared to decrease significantly in favor of the health department and early interventionists.

3.5. Diagnostic testing type

Both groups continue to accurately rate psychological, educational, or developmental testing as the most appropriate assessment types. Statistically significant decreases in rating of speech and language evaluation and blood work were noted.

3.6. Diagnostic traits

Both groups continued to display generally good knowledge regarding diagnostic traits vs. non-diagnostic traits. Additionally, roughly 50% of each group rated fidgets and squirms constantly as a diagnostic trait, but decreases in knowledge regarding non-diagnostic traits (e.g., illogical thinking, violent behavior, and psychotic symptoms were observed.

3.7. Therapy or treatment

A high percentage of both groups accurately rated behavior therapies and training or education for the parents as the most appropriate therapeutic approach. Group 2 rated play therapy as statistically significantly more than Group 1. Furthermore, there was a significant decrease in the perception of the appropriateness of drugs being considered as treatment options from 2015 to 2023. Finally, physical exercise was rated more often in 2023 than 2015.

4. Discussion

Comparing Group 1 and Group 2 data reveals key shifts in lay beliefs about autism. Information sources have diversified beyond media, reflecting broader societal understanding. It is very encouraging that the belief in vaccines as a cause has declined which is likely due to education and awareness efforts. Increased personal experience with autism is consistent with rising prevalence rates from 2015 (1:56) to 2023 (1:36; Maenner et al., 2023). Both groups accurately identified symptom onset before age five, while a shift toward seeking information from specialized professionals (e.g., health departments, early intervention specialists) over unreliable sources (e.g., internet) suggests evolving public trust in expert guidance. Knowledge of diagnostic traits remained strong, with improvements in distinguishing non-diagnostic traits (e.g., violence, psychotic behavior). Differences in treatment beliefs highlight the ongoing need for comprehensive, up-to-date information dissemination.

5. Conclusion

This study contributes to current knowledge by identifying shifts in misconceptions (e.g., vaccines), informing targeted education efforts (Brosnan & Mills, 2016), examining how societal perceptions impact autistic individuals and families (Happé & Frith, 2020), and refining interventions to address public needs (Pellicano & Stears, 2011). Increased awareness may be partly driven by social media, which allows for rapid information sharing and may promotes a more informed, empathetic understanding of autism. These current findings is consistent with previous research on the influence of online platforms in shaping public perceptions of health issues (Smith & Anderson, 2018; Pew Research Center, 2021).

References

American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders, fifth edition, texted revision.* Washington DC: American Psychiatric Publishing.

Blancher, A., & Yetman, M. (2023). Medical Students' Knowledge of Autism Compared to the General Population: A Pilot Study. *Journal of Medical Education Research*, *3*(1), 5-24. http://dx.doi.org/10.5750/jmer.v3i1.2123

Brosnan, M., & Mills, E. (2016). *Autism and the public imagination: Media, discourse, and contemporary cultural representations.* London: Jessica Kingsley Publishers.

Epitools. (n.d.). *Two-Sample Z-Test to Compare Sample Proportion*. https://epitools.ausvet.com.au/ztesttwo.

Furnham, A., & Buck, C. (2003). A comparison of lay-beliefs about autism and obsessive-compulsive disorder. *International Journal of Social Psychiatry*, *49*(4), 287-307. https://doi.org/10.1177/0020764003494006

Happé, F., & Frith, U. (2020). Annual research review: Looking back to look forward – changes in the concept of autism and implications for future research. *Journal of Child Psychology and Psychiatry*, *61*(3), 218-232. https://doi.org/10.1111/jcpp.13176

Holt, J. M., & Christensen, K. M. (2013). Utahns' understanding of autism spectrum disorder. *Disability and Health Journal*, *6*(1), 52-62. https://doi.org/10.1016/j.dhjo.2012.08.002

Maenner, M. J., et al. (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*(No. SS-11), 1-16. DOI: http://dx.doi.org/10.15585/mmwr.ss7011a1external

Maenner, M. J., et al. (2023). Prevalence and Characteristics of Autism Spectrum Disorder Among Children Aged 8 Years - Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2020. *MMWR Surveillance Summaries*, *72*(2), 1-14. http://dx.doi.org/10.15585/mmwr.ss7202a1

Mitchell, G. E., & Locke, K. D. (2015). Lay beliefs about autism spectrum disorder among the general public and childcare workers. *Autism*, *19*(6), 641-652. DOI: https://doi.org/10.1177/1362361314533839

Pellicano, E., & Stears, M. (2011). Bridging autism, science and society: Moving toward an ethically informed approach to autism research. *Autism Research, 4*(4), 271-282. https://doi.org/10.1002/aur.201

Pew Research Center. (2021). *Social Media Factsheet.* https://www.pewresearch.org/internet/fact-sheet/social-media/

Smith, A., & Anderson, M. (2018). *Social Media Use 2018: Demographics and Statistics.* Washington DC: Pew Research Center. https://www.pewresearch.org/internet/2018/03/01/social-media-use-in-2018/

Table 1. Percentage of responses to Mitchell and Locke (2015) and Blancher and Yetman (2023)

Research Question and Answer Options	Samples	
Where have you gotten most of your information about autism?	Group 1 (2015)	Group 2 (2023)
Friend, neighbor, or family	**21.1**	**35.5**
School, work, or professional organization	**15.8**	**43.1**
Personal experience	**8.0**	**31.8**
Unsure or other	**6.9**	**2.8**
Doctor, hospital, or clinic	**2.1**	**23.0**
Please choose which two of the following you believe are the main causes of autism?*		
Vaccinations	**10.2**	**4.8**
Family	**4.3**	**7.9**
What is the earliest age that you think a person can be diagnosed with autism?		
3-5 years of age	**31.8**	**27.3**
If you suspect someone you know has autism, where should they go for help first?		
Early Intervention specialist	**11.1**	**18.5**
Internet	**3.9**	**.6**
Health Department	**2.7**	**15**
What kind of testing do you think is done to diagnose autism?		
Speech and language evaluation	**4.6**	**1.6**
Blood work, chemical or genetic testing	**4.9**	**2.0**
Please select 6 of the following traits that you believe are most diagnostic of autism		
Diagnostic traits		
Poor back-and-forth communication skills	**87**	**81.2**
Non-diagnostic traits		
Illogical thinking	**21.1**	**12.2**
Consistently violent behavior	**11.7**	**7.3**
Seeing or hearing things that do not exist	**6.9**	**4.0**
Do you think there are therapies or treatments for autism? If so, which of the following are appropriate therapies or treatments for autism? (please pick 3).*		
Behavior Therapies	**71.1**	**78**
Educational Therapies	**32.7**	**39.6**
Play Therapy	**25.3**	**41.6**
Speech Therapy	**24.4**	**35.0**
Drugs/Medication	**19.8**	**11.0**
Physical Exercise	**5.1**	**16.1**