



ARE™

AUTISM REALITY

# WHITE PAPER

UNDERSTANDING THE MANY SIDES OF AUTISM SPECTRUM DISORDER

BY MELORA JACKSON, MS, CDP, DCCS  
CLINICAL DIRECTOR AT  
SECOND WIND DREAMS

[www.secondwind.org](http://www.secondwind.org)

# The Need

Autism spectrum disorders (ASD) are difficult for many people to understand. There are several aspects to sensory processing that present challenges for individuals living on the spectrum. These include visual, auditory, tactile, and other differences that can profoundly affect how an individual experiences and manages in their environment.

This is a concern not only for families of people with ASD, but for communities, civic and governmental organizations, educational institutions, and businesses who employ or provide customer or support services. In 2023, the Centers for Disease Control and Prevention reported that approximately 1 in 36 children in the United States is diagnosed with an autism spectrum disorder (ASD), according to 2020 data.<sup>1</sup> Over the next decade, an estimated 707,000 to 1,116,000 teens will enter adulthood and age out of school based autism services each year.<sup>2</sup> The cost of caring for Americans with autism had reached \$268 billion in 2015 and would rise to \$461 billion by 2025 in the absence of more-effective interventions and support across the life span. The majority of autism's costs in the U.S. are for adult services – an estimated \$175 to \$196 billion a year, compared to \$61 to \$66 billion a year for children.<sup>3</sup>



Disability biases and inappropriate responses to people with autism occur in a variety of environments including care provision, employee retention, customer services, etc. The need for increased understanding and empathy are critical to providing autism friendly services and opportunities for people with ASD. To accomplish this, a simulation that increases understanding and empathy is a primary tool.

Studies indicate that adult learners show the strongest learning outcomes when given the opportunity to be an active participant in experiential learning, with direct feedback and concrete recommendations as if they are in the real situation.<sup>4</sup> Educational simulations result not only in improved professional competencies, but also in higher employee satisfaction.<sup>5</sup>

Currently, tools for understanding autism are limited to specific aspects using virtual reality or videos that only use visual and auditory stimuli. A comprehensive, immersive simulation of what autism is like that includes tactile, vestibular, proprioceptive, olfactory, visual, auditory, and distracting stimuli is necessary for a more accurate picture of autism spectrum disorders.

# Autism Reality Program

There are many aspects to the experience of living on the spectrum and the ARE™ helps us better understand what autism is like. Created with the help of people with autism, the simulation brings better understanding of the needs of people living on the spectrum, which is the first step to improvement of autism-friendly services and supports. When participants can see what it is like for their neurodivergent clients, customers, or loved ones experience with sensory processing differences, empathy follows.

During the development and research in the United Kingdom in 2017 in tandem with 150 people living on the autism spectrum, 149 praised this for being as close to their experiences as possible.<sup>6</sup> Components of the simulation stimulate issues with proprioception, vestibular function, auditory, visual, tactile, and olfactory sensitivities which are all known elements of sensory processing disorders in autism.<sup>7</sup> During the ARE™, participants are given task instructions, then told to complete the tasks within a short time at the end of the simulation. This illustrates not only the sensory challenges, but also the difficulties of trying to learn, remember, and act on information while experiencing the disruption of sensory processing.

Following the simulation, a standardized didactic presentation and discussion help participants to understand all the components of the sensory processing challenges and ways to accommodate and assist people on the autism spectrum regardless of age. Participants are taken through four elements in this discussion:

1. Acknowledgement that sensory processing disorder is very real and can pose huge challenges for a person with autism.
2. Education of other people, raising awareness about autism not only within the staff, team, or family but also providing information and awareness among peers.
3. Understanding autism and the way it affects a person as an individual and how we can support managing the difficulties a person with autism experiences.
4. Adjustments are needed everywhere to support people on the autism spectrum to ensure success.

In addition to the experiential and educational parts of the training, participants complete a pre- and post-survey on their knowledge and attitudes regarding autism directly before and after the experiential portion. At the completion of the training, participants complete an evaluation to determine efficacy of and satisfaction with the ARE™.

# Autism Reality

Conclusion:

The ARE™ is an innovative, immersive, and hands-on training which has been developed to give neuro-typical people a deeper understanding and a personal experience of the sensory processing difficulties faced by people on the autism spectrum.

The in-depth debrief session provides education regarding autism and the implications for adults living on the spectrum in areas like education, employment, commerce/customer service, or opportunities for safe interactions in public places.

With the goal of increasing empathy and understanding of those living on the autism spectrum, the ARE™ facilitates positive change to best practice in a variety of organizations and businesses to create more autism friendly services and supports that improve the lives of those on the spectrum where they live, work, or engage with the world.





# REFERENCES:

1. MAENNERMJ, WARREN Z, WILLIAMSAR,ET AL. PREVALENCE AND CHARACTERISTICS OF AUTISMSPECTRUMDISORDERAMONGCHILDRENAGED 8 YEARS—AUTISM AND DEVELOPMENTAL DISABILITIES MONITORING NETWORK, 11 SITES, UNITED STATES, 2020. MMWR SURVEILL SUMM 2023; 72 (NO.SS-2): 1–14.DOI: [HTTP://DX.DOI.ORG/10.15585/MMWR.SS7202A1](http://dx.doi.org/10.15585/mmwr.ss7202a1).
2. SHAWKA, BILDERDA, MCARTHUR D, ET AL. EARLY IDENTIFICATION OF AUTISM SPECTRUM DISORDER AMONG CHILDREN AGED 4 YEARS—AUTISM AND DEVELOPMENTAL DISABILITIES MONITORING NETWORK, 11 SITES, UNITED STATES, 2020. MMWR SURVEILL SUMM 2023, 72 (NO.SS-1): 1-15.
3. JANET CAKIR, RICHARD E. FRYE, STEPHEN J. WALKER, THE LIFETIME SOCIAL COST OF AUTISM: 1990–2029, RESEARCH IN AUTISM SPECTRUM DISORDERS, VOLUME 72, 2020, 101502, ISSN 1750-9467, [HTTPS://DOI.ORG/10.1016/J.RASD.2019.101502](https://doi.org/10.1016/j.rasd.2019.101502).
4. MAGAGHIE, 1999, P. 9, AS QUOTED IN ISSENBERG, MCGAGHIE, PETRUSA, GORDON, & SCALESE (2005)
5. BOGO, REGEHR, LOGIE, KATZ, MYLOPOUOLOS, AND REGEHR (2011), DE VINCI (2010).
6. TRAINING2CARE, [HTTPS://WWW.TRAINING2CARE.COM/AUTISM-REALITY-EXPERIENCE.HTM](https://www.training2care.com/autism-reality-experience.htm)
7. SCHOEN SARAH, MILLER LUCY, BRETT-GREEN BARBARA, NIELSEN DARCI, PHYSIOLOGICAL AND BEHAVIORAL DIFFERENCES IN SENSORY PROCESSING: A COMPARISON OF CHILDREN WITH AUTISM SPECTRUM DISORDER AND SENSORY MODULATION DISORDER, FRONTIERS IN INTEGRATIVE NEUROSCIENCE, VOL. 3 (2009). [HTTPS://WWW.FRONTIERSIN.ORG/ARTICLES/10.3389/NEURO.07.029.2009](https://www.frontiersin.org/articles/10.3389/neuro.07.029.2009), 10.3389/NEURO.07.029.2009, 1662-5145