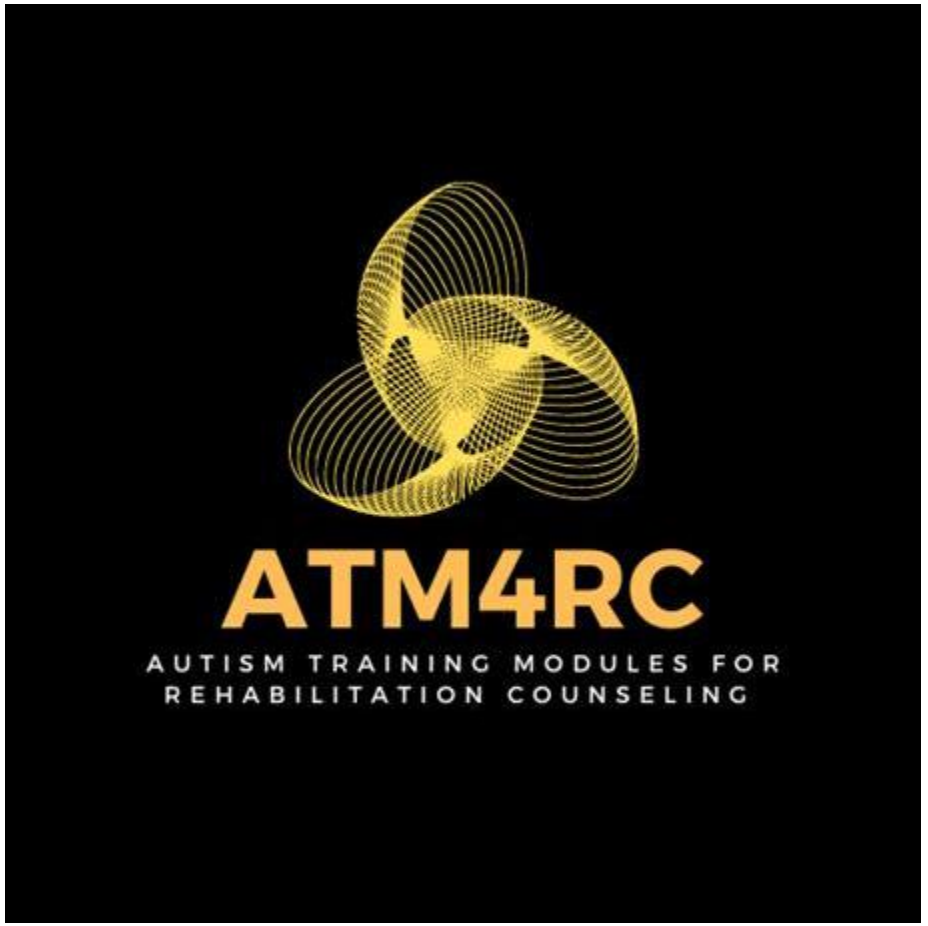
Sensory Issues and Autism-Friendly Workplace Environments



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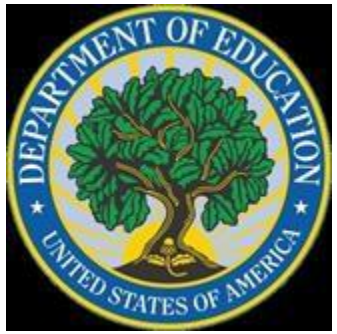
Module developed by Dr. Marjorie Bock, Ed.D. and Dr. Jessica Stallings, ATR-BC, LIMHP, LMH



Module Objectives

By the end of this module, participants will be able to:

1. Define Sensory Processing Disorders (SPD)
2. Identify common sensory challenges experienced by those who have SPDs
3. List ways to provide support to individuals with SPDs
4. Identify processes towards ensuring an Autism friendly workplace and environment

What are Sensory Processing Disorders?

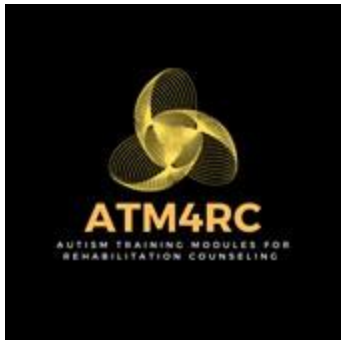
With Sensory Processing Disorders:

- Individuals may not interpret the sensory messages they receive from their body and the environment effectively (visual, auditory, taste, olfactory, tactile...)
- Individuals may find some sensory inputs overwhelming while others may not be noticed
- Individuals may not notice some sensory inputs quickly
- For more information on Sensory Processing Disorder please read https://www.twentyonesenses.org/eight-senses-spd/

Sensory processing and Autism

- The Diagnostics and Statistical Manual of Mental Disorders 5 Text Revision (DSM 5 TR; American Psychiatric Association, 2022; the manual most frequently used by diagnosticians to diagnose autism) includes differences in sensory processing/responses as one possible characteristic of autism.

DSM 5 TR
(American Psychiatric Association, 2022)



- Acknowledges that sensory sensitivities may be a symptom of autism and places sensory processing differences under the Restrictive Repetitive Behavior symptomology criteria:
  - These may include hyper or hypo sensitivity to various sensations or fixation on sensory experiences or sensations, a few examples include
    - Attempting to feel or smell the hair of others around them
    - Listening to the same 30 second clip of music repeatedly for hours
    - Flapping their hands due to over or under stimulation
    - Avoiding specific rooms due to the cycling of fluorescent lights
    - Avoiding people who speak very loudly or becoming upset in their presence but lack of personal awareness of own voice volume

How Frequently do Autism and Sensory Processing Challenges Co-Occur?

CHILDREN

- In a large multi-state study with a sample of nearly 26,000 children with autism, researchers found that nearly 75% of participants experienced differences in sensory processing.

(Kirby, Bilder, Wiggins, Hughes, Davis, Hall-Lande, Lee, McMahon, & Bakian, 2021)

ADULTS

- 83% of autistic adult survey respondents self- reported challenges with sensory processing.
- Respondents also reported sensory processing challenges contributed increased levels of stress.

(Atwood, Evans, & Lesko, 2014)

What Might the Sensory Processing Challenges Feel Like?

"Living with [Autism] is like living with Dolby Surround sound, wearing 3-D glasses like those used in movie theatres and having your sense of smell and touch jacked up to the max." Anita Lesko, adult with Autism

Read this article about Anita Lesko's experiences

https://ibcces.org/blog/2016/09/20/guest-blogger-anita/

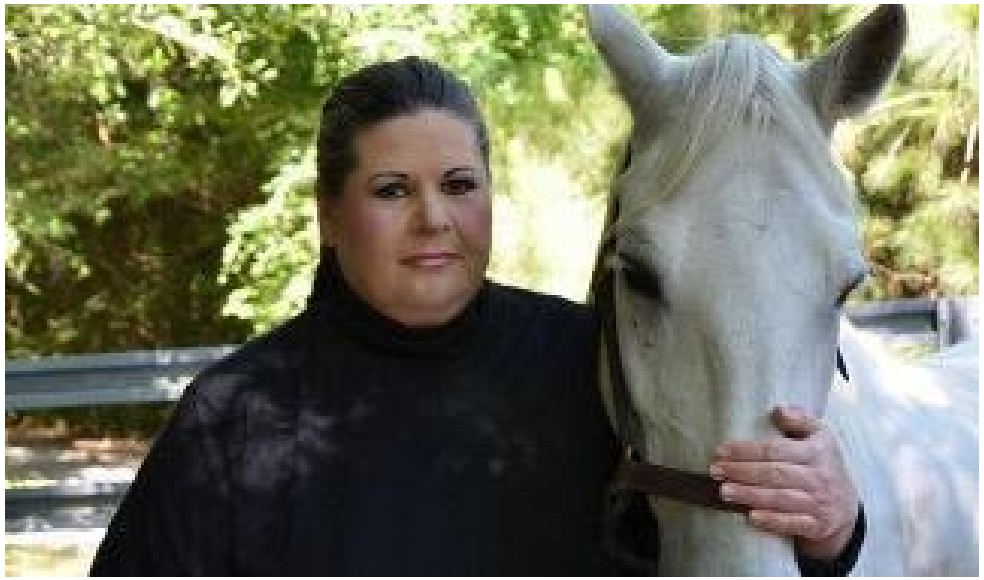
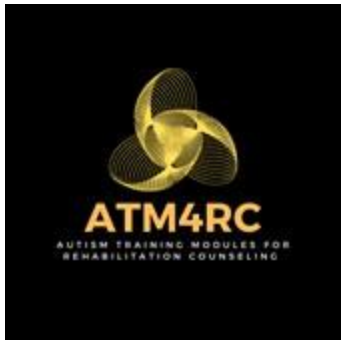


Image from http://autismshow.org/anita/

Is There a Common Pattern of Sensory Sensitivity in Autism?

- Sensory sensitivities vary from person to person
- Many experience auditory sensitivity, touch sensitivity and light filtering sensitivity
- Other sensitivities may occur with proprioception and vestibular sense.
- More information on each of these is included on the following slides and included links.

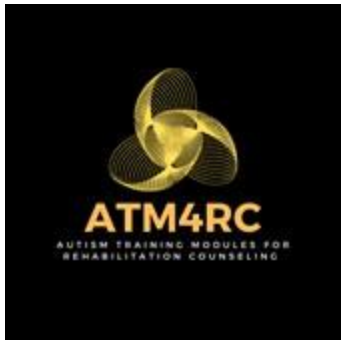
What Might Autism and Sensory Processing Challenges Look Like Functionally Day to Day?



Sight/visual system: Visual stimulation can be overwhelming, read here for more information https://www.nspt4kids.com/health-topics-and-concerns/sensory-processing-disorder/understanding-sensory-processing-disorder-visual-system.

Types of lighting can interfere with ability to function and focus. Read this article for more information on light filtering, sensory overload and adaptive strategies https://www.makegreatlight.com/about-us/blog/fluorescent-led-lighting-autism-spectrum-disorder

What Might Autism and Sensory Processing Challenges Look Like Functionally Day to Day?... Slide 2



Auditory: Discerning relevant auditory information can become challenging especially when more than one stimulus is present. Read here form or information. https://www.griffinot.com/sensory-processing-hearing-sense/ and https://www.griffinot.com/auditory-sensitivity-autism-sensory/

Touch: Difficulties might occur with clothing fabrics, shoes, socks, haircuts, hair brushing or washing, teeth brushing, or play and food textures. Read more here about touch sensitivities and adaptations https://www.griffinot.com/touch-sense-sensory-processing/ and https://www.griffinot.com/what-is-tactile-defensiveness/

What Might Autism and Sensory Processing Challenges Look Like Functionally Day to Day?... Slide 3

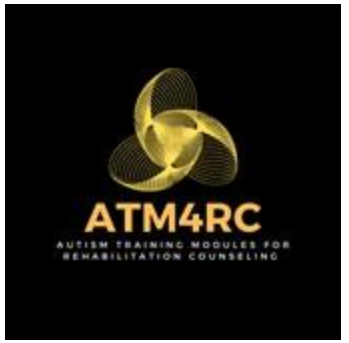
Body Position and Movement: Those who are slower to process proprioceptive sensory input have limited awareness of where their body is in space and difficulty with coordination. Read more here regarding proprioception challenges and adaptations https://www.griffinot.com/what-is-proprioception/

Sensory sensitivities may also occur with the vestibular sense, also known as balance, for more information read here https://www.griffinot.com/vestibular-system/

What Might Autism and Sensory Processing Challenges Look Like Functionally Day to Day?... Slide 4

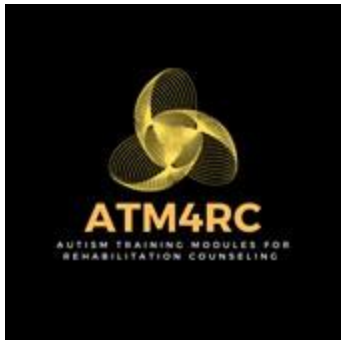
Interoception: Interoception refers to internal cues-what we sense from our bodies. Awareness of internal sensations varies widely and can have an impact on overall functioning ranging from being unaware that you are hungry to being unable to ignore a small papercut. For more information on the impact of interoception go here https://www.griffinot.com/interoception-explained/

Demonstration of Sensory Overload



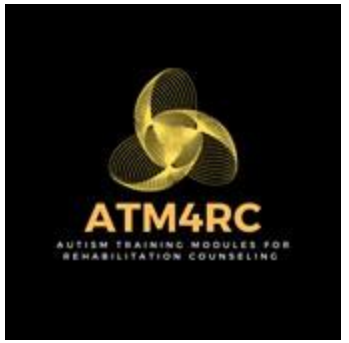
This video (follow link https://www.youtube.com/watch?v=aPknwW8mPAM&t=10s) shows a child with Autism experiencing sensory overload in a shopping mall. Similar sensory overload can happen in workplace environments.

How Can I Help Support Sensory Processing Difficulties in Autistic Adults?



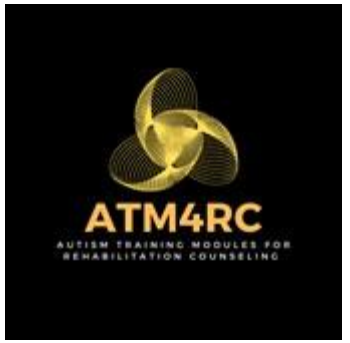
- Consider the environment
  - Sensory inputs will change across & within environments
  - Larger & less predictable environments have more sensory input for persons with autism to process
  - Home environments are often preferred environments for autistic persons (employment opportunities to work from home could be a great option)
- Consider responses to environment
  - Can change over time
  - Stress & anxiety can cause a change in response

How Can I Help Support Sensory Processing Difficulties in Autistic Adults? Side 2



- Consider creating an autism-friendly environment
  - Lighting (computer screen filters), noise (noise-cancelling headphones), color (blues or greens), smell (no perfume, odorless deodorants), consistent routine, visual supports (signs with icons & words), etc.
  - Sensory area in work breakroom or sensory box for autistic person, which may include
    - Sensory fidgets
    - Weighted blankets or pads
    - Wiggle “cushions” for seats
    - Exercise balls for seating
    - Sensory socks for self soothing

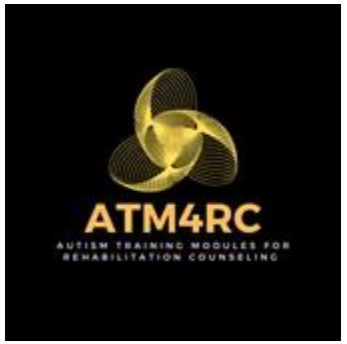
What Makes an Autism Friendly Workplace?



Organization for Autism Research and Hire Autism provide some tips on how to create an Autism Friendly Workplace

https://www.hireautism.org/resource-center/the-autism-friendly-workplace/

Workplace Environmental Evaluation Activity



Directions:

1. Select a workplace where your client with Autism experiences difficulties or select workplace where you often place clients (e.g., grocery store).
2. Go to the workplace. (Visit with the workplace manager to solicit their support for this activity.)
3. Using Simpson (2016) Checklist for Autism Friendly Environments, at https://www.southwestyorkshire.nhs.uk/wp-content/uploads/2014/10/Checklist-for-autism-friendly-environments.pdf to evaluate the workplace.
4. Share the environmental evaluation results including suggested accommodations and modifications with the workplace manager.

References (1 of 3)

- American Psychiatric Association. (2022). Diagnostic and statistical manual of mental disorders (5th ed., TEXT REV.). Washington, DC: Author.

- Atwood, T., Evans, C., & Lesko, A. (2014). Been There. Done That. Try This! Philadelphia: Jessica Kingsley Publishers

- Bodison, S. C., & Parham, L. D. (2018). Specific sensory techniques and sensory environmental modifications for children and youth with sensory integration difficulties: A systematic review. *American Journal of Occupational Therapy.* 72,https://doi.org/10.5014/ajot.2018.029413

References (2 of 3)

- Kirby, A.V.; Bilder, D.A.; Wiggins, L.D.; Hughes, M.M.; Davis, J.; Hall-Launde, J.A.; Lee, L-C.; McMahon, W.M.; Bakian, A.V. (2022). Sensory features in autism: Findings from a large population-based surveillance system. Autism Research, 15(4). https://doi.org/10.1002/aur.2670

- Parham, L. D., Cohn, E. S., Spitzer, S., Koomar, J. A., Miller, L. J., Burke, J. P., et al. (2007). Fidelity in sensory integration practice intervention research. American Journal of Occupational Therapy, 61, 216–227

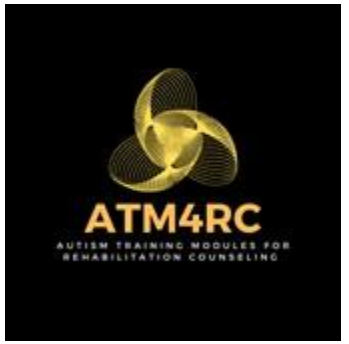
- Pfeiffer, B. A. (2012, June). Sensory hypersensitivity and anxiety: The chicken or the egg? Sensory Integration Special Interest Section Quarterly, 35(2), 1–4

References (3 of 3)

- Randell, R. et al (2019) Sensory integration therapy vs usual care for sensory processing difficulties in autism spectrum disorder in children: study protocol for a pragmatic randomized control trial. BMC Trials. https://doi.org/10.1186/s13063-019-3205-y

- Schaaf, R. C., Dumont, R. L., Arbesman, M., & May-Benson, T. A. (2018). Efficacy of occupational therapy using ASI: A systematic review. American Journal of Occupational Therapy, 72, https://doi.org/10.5014/ajot.2018.028431

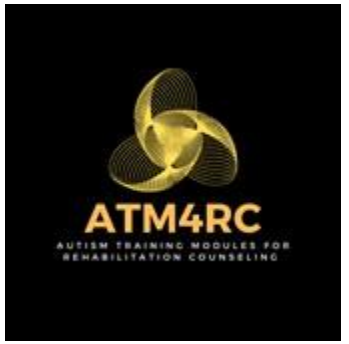
Additional Resources: AFIRM



Autism Focused Intervention Resources & Modules (AFIRM)

- Interactive module providing in-depth training on the characteristics associated with autism. Open Educational Resource (OER) https://afirm.fpg.unc.edu/node/2524
- Interactive module providing in-depth training about Ayers sensor integration (ASI) & its use to address sensory integration challenges. (OER) https://afirm.fpg.unc.edu/node/2813

Additional Resources: AFIRM



- Autism Focused Intervention Resources & Modules (AFIRM)

- Steinbrenner, J., Sam, A., Chin, J., Morgan, W., & AFIRM for Paras Team. (2019). Introduction to ASD. FPG Child Development Institute, University of North Carolina. Retrieved from https://afirm.fpg.unc.edu/introduction-asd

- Nowell, S., Sam, A., Waters, V., Dees, R., & AFIRM Team. (2021). Ayres Sensory Integration®. The University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Institute, Autism Focused Intervention Modules and Resources. https://afirm.fpg.unc.edu/ayres-sensory-integration