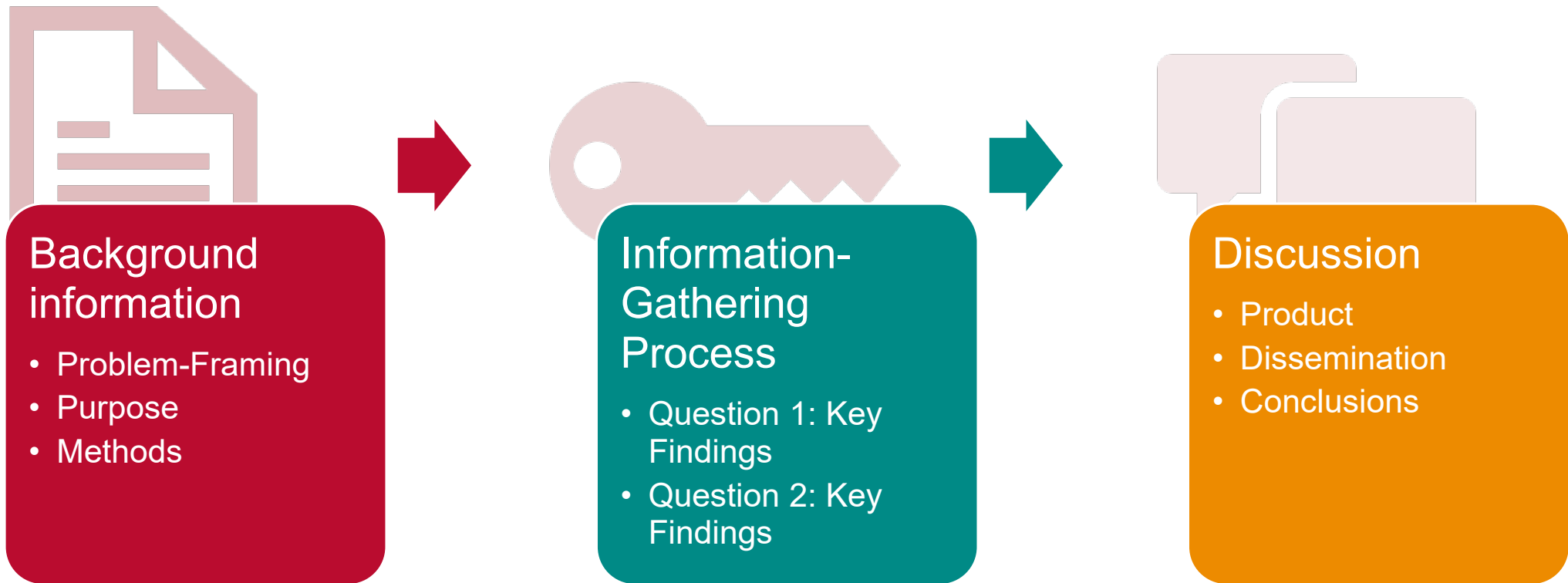


The Role of the Speech-Language Pathologist in Supporting Children with Autism Spectrum Disorder and Anxiety

KYLEE KENNEDY MS SLP

LEND FELLOW 2020-21

Agenda



Background

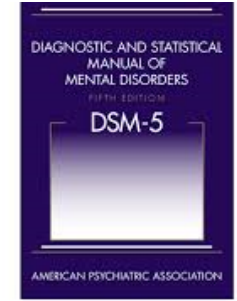
Autism Spectrum Disorder (ASD) is a complex developmental condition that may impact an individual's communication, behavior, and sociability *(Center for Disease Control and Prevention [CDC], 2020)*

ASD rarely occurs in isolation; an individual with ASD is likely to have another physical or mental health condition such as anxiety *(The Children's Hospital of Philadelphia, 2017)*

Anxiety can influence communication by impacting fluency and heighten any preexisting social and communication difficulties *(Downey, 2020)*

About 90% of school-based SLPs regularly serve individuals with ASD *(Janota, 2018)*

What is ASD?



Deficits in social communication and social interaction in the following

- Social approach/interaction
- Nonverbal communication
- Relationships

Presence of restricted, repetitive patterns of behavior, interests, or activities (at least two of the following, currently or by history)

- Stereotyped or repetitive motor movements, objects, speech
- Routines
- Restricted interests
- Sensory (Hyper- or hypo-reactivity)

Symptoms must be present in the early developmental period (but may not become fully manifest until social demands exceed limited capacities, or may be masked by learned strategies in later life).

Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.

What is anxiety?

Generalized Anxiety Disorder (GAD)

- Persistent and excessive anxiety and worry about work and school performance that is difficult to control.
- Physical symptoms include:
 - restlessness, on edge
 - being easily fatigued
 - difficulty concentrating or mind going blank
 - irritability
 - muscle tension
 - sleep disturbance

Social Anxiety Disorder (SAD)

- Individuals are fearful or anxious about or avoidant of social interactions and situations that involve the possibility of being negatively evaluated by others, by being embarrassed, humiliated, or rejected, or offending others.
- Including:
 - meeting unfamiliar people
 - where the individual performs in front of others
 - situations where the individual may be observed eating or drinking

Specific Phobia

- Individuals are fearful or anxious about or avoidant of objects or situations.
- Fear, anxiety, or avoidance is almost always immediately induced by the phobic situation
- Types of specific phobias
 - animal
 - natural environment
 - blood-injection-injury
 - situational

Problem-Framing

- This capstone addresses a practical problem on a clinical level associated with autism spectrum disorder
- SLPs address social communication deficits in students with ASD, however, it is not within the scope of practice of an SLP to treat anxiety
- SLPs need to be aware and understand the relationship between ASD and anxiety as well as its impact on social communication to provide appropriate supports to benefit the student with ASD

Purpose

1. To increase awareness of the signs and symptoms of anxiety in children with ASD and enhance the SLP's knowledge of the impact that anxiety may have on students with ASD and adjust therapy accordingly
 2. To increase service coordination with other professionals and families
-

LEND Competencies



INTERDISCIPLINARY
PRACTICE



KNOWLEDGE, SKILLS,
AND ATTITUDES



RESEARCH AND
CRITICAL THINKING

Competencies related to the capstone project

Capstone Major Questions

Question 1

⑩ What is the relationship between anxiety and school-aged children with Autism Spectrum Disorder (ASD)?

Question 2

⑩ What is the role of the Speech-Language Pathologist (SLP)?



Methods



Literature review



Observation –
Facing your Fears
Program



Product
Development



Dissemination

Information Gathering Process

IRB approval not necessary because information was gathered during the literature review process

Literature search: Google Scholar, UNM Library Database, ASHA Wire

Search terms: *ASD, Anxiety, Children, Autism Spectrum Disorder, presentation, social communication, communication deficits, SLP, scope of practice, emotional regulation, counseling*

Exclusion criteria: *ADHD, syndrome, depression, eye-gaze, gene*

UNM Database: 60

Literature Review

9 articles reviewed

Organized by my capstone questions

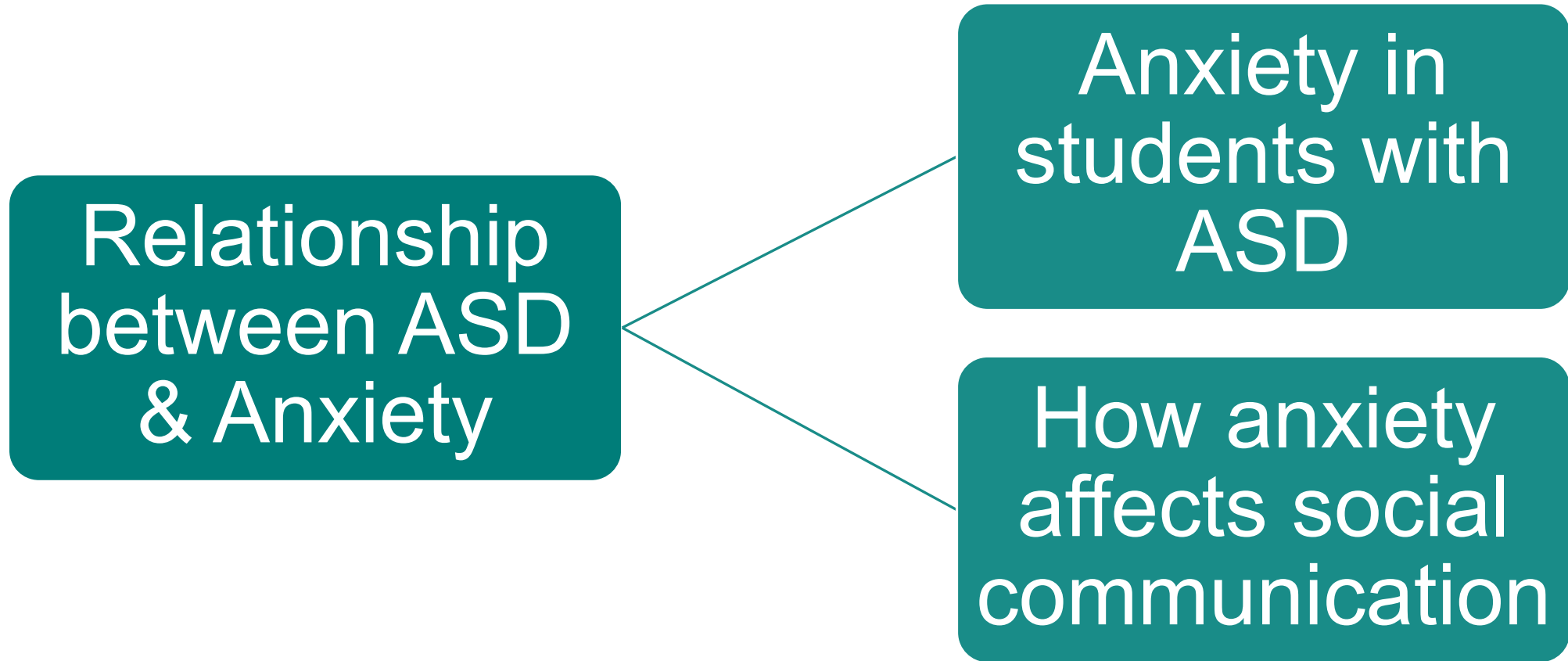
Analysis

| Author | Type of article | Targeted school age | Addressed anxiety and ASD | Addressed social com | Clinical implications |
|--------------------|--------------------|---------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Binns, 2018 | Systematic review | N/A | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Davis et al., 2011 | RTC | 2-14 years old | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hewitt, 2014 | Expert opinion | N/A | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Keen et al., 2017 | Longitudinal Study | 5-6 years old | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Kerns et al., 2014 | RTC | 7-17 years old | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Analysis

| Author | Type of article | Targeted school age | Addressed anxiety & ASD | Addressed social com | Clinical implications |
|---------------------------|--------------------|---------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Pickard et al., 2017 | Longitudinal Study | 7-13 years old | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Prizant & Laurent, 2016 | Expert Opinion | N/A | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| van Steensel et al., 2011 | Meta-analysis | <18 years | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| White et al., 2009 | Systematic review | 6-18 years old | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Findings



Anxiety in Student with ASD

Children with ASD are more likely to have anxiety than children without (~40%)

(Keen et al., 2017; van Steensel et al., 2011; Keefer, 2019)

Difficult to diagnose due to symptom overlap of anxiety and ASD

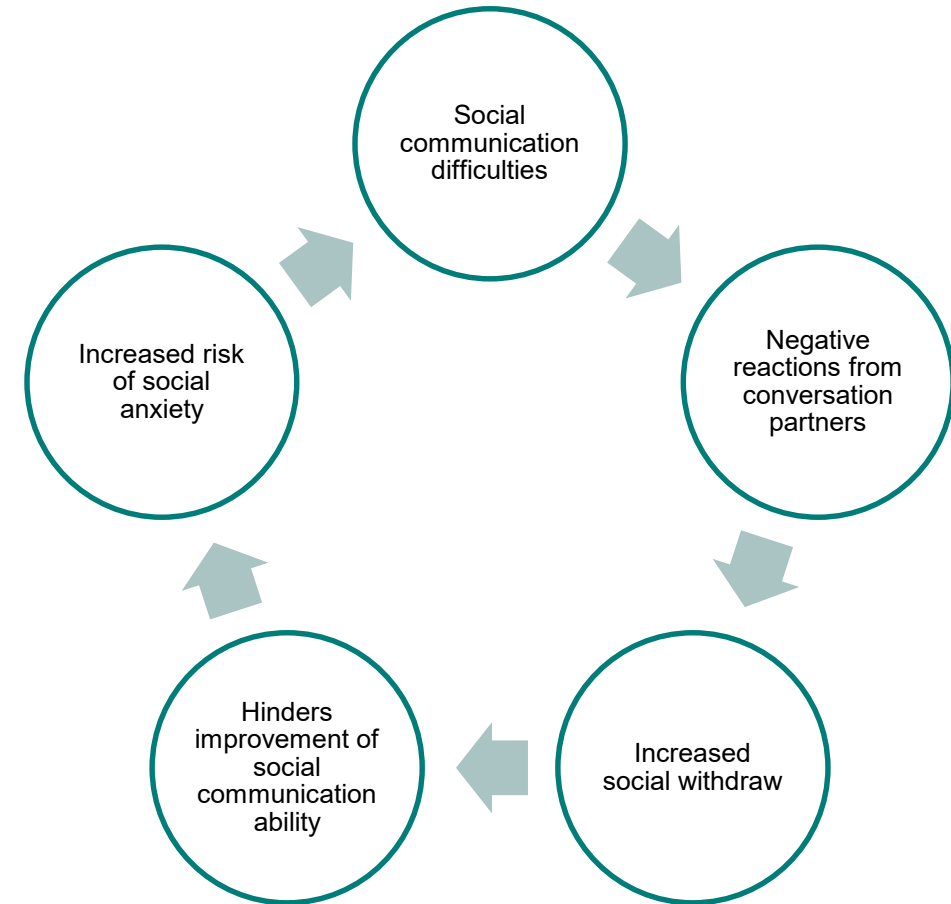
(Keen, 2017; van Steensel et al., 2011)

Presentation of anxiety is influenced by age, cognitive functioning, degree of social impairment and specific symptoms of anxiety and ASD

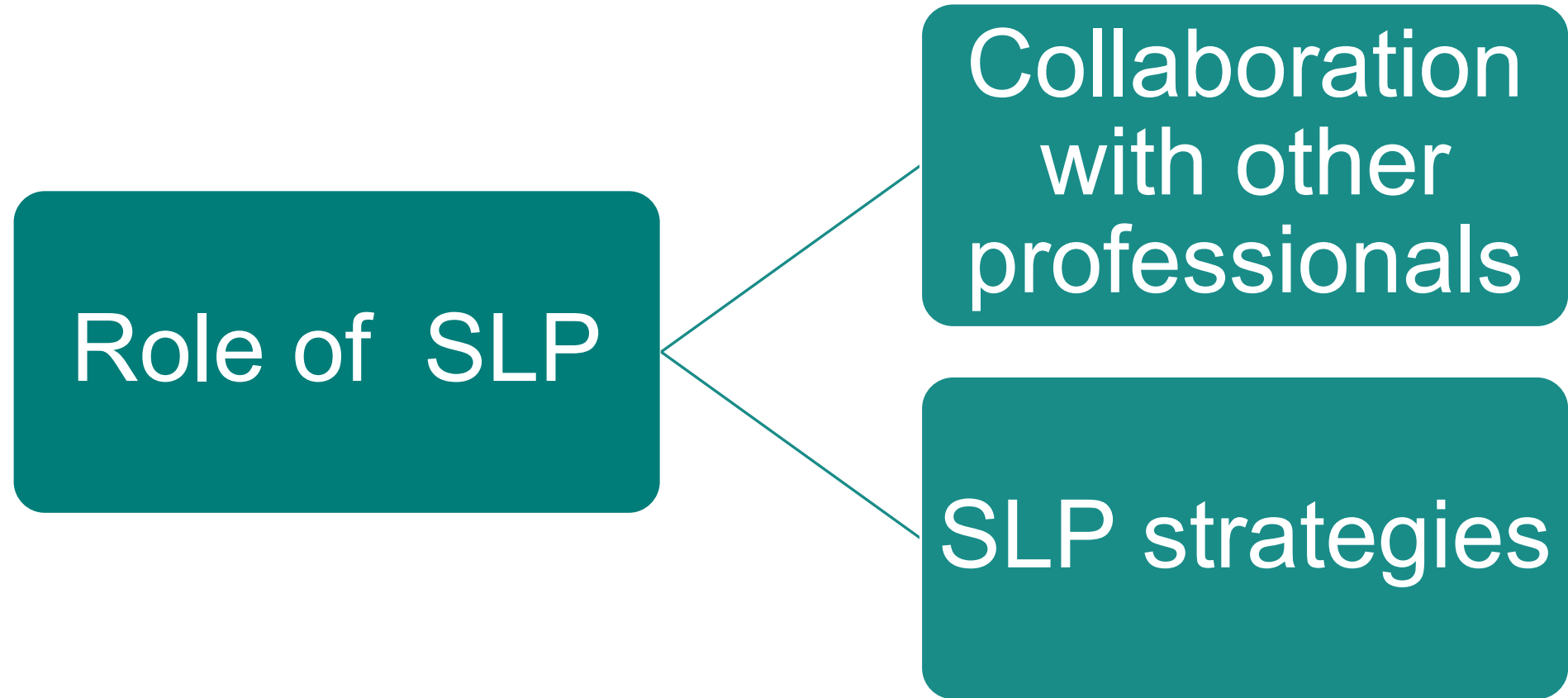
(White et al., 2009; van Steensel et al., 2011; Pickard et al., 2017; Kerns et al., 2014)

How Anxiety Impacts Social Communication

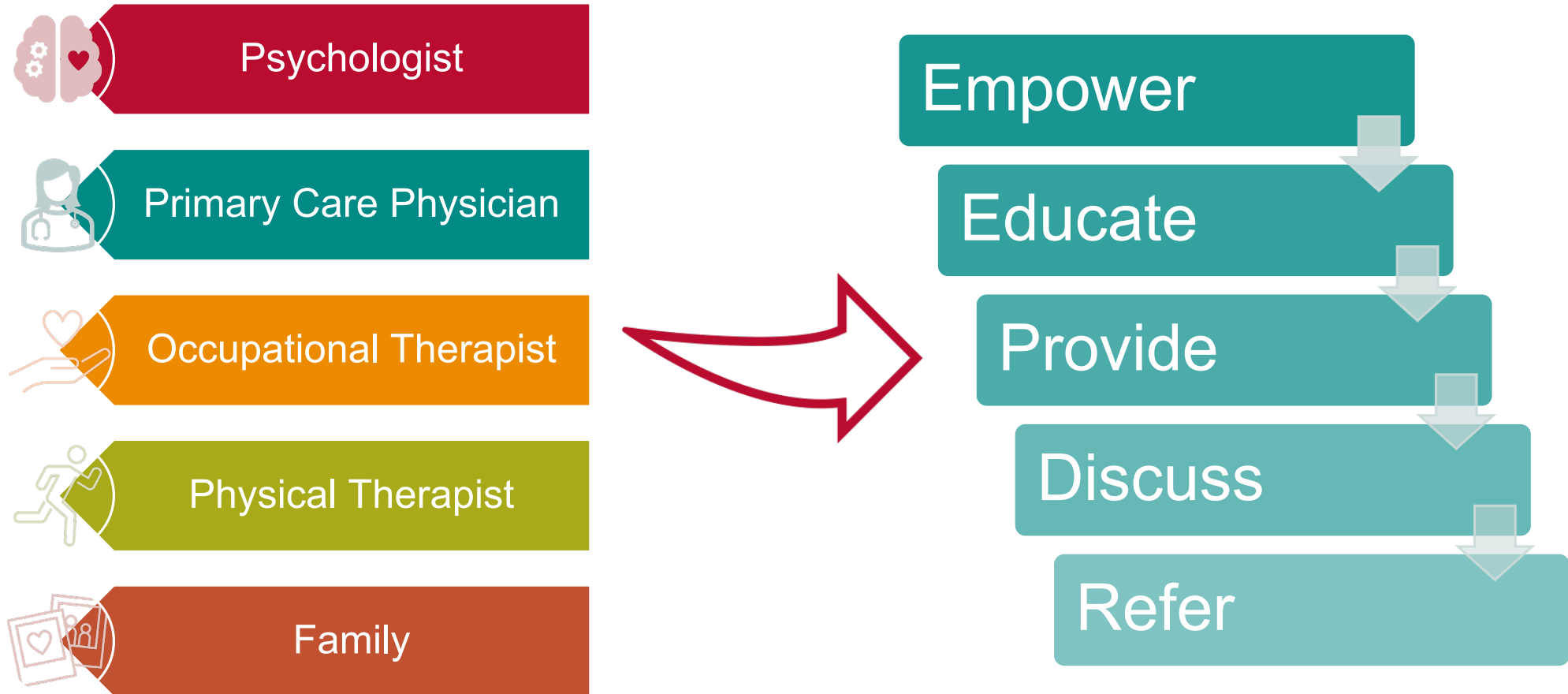
1. Children may not have the communication skills or vocabulary to express their symptoms of anxiety
(Davis et al., 2011)
2. Children with lower support needs are more likely to experience anxiety because of increased awareness of social deficits (White et al., 2009; Davis et al., 2011; Pickard et al., 2017)
3. Increased communication deficits impair children from being able to communicate symptoms of anxiety
(Davis et al., 2011)



Findings



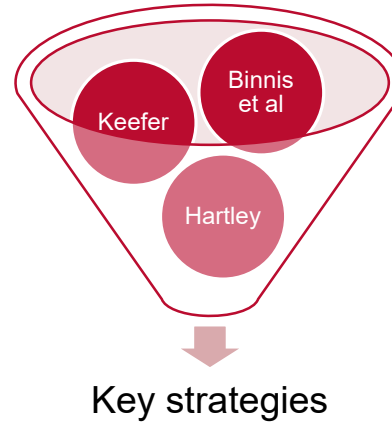
Collaboration with Other Professionals



Common Strategies

1. **Ensure that child understands and uses self-regulatory vocabulary**
2. **Identify potential stressors**
3. **Reduce amount of available toys**
4. **Have “sensory break” spaces**
5. **Use auditory cues to supplement the use of visual supports**
6. **Help child understand expectations for upcoming activities**
7. Conduct sessions in small spaces
8. Use physical supports & predictable routines
9. Respond to communicative attempts
10. Validate child's emotions
11. Follow child's lead
12. Reduce cognitive load
13. Include child in decisions that involve them
14. Control volume and rate of speech

(Binnis et al., 2019)



1. **Attempt to avoid anxiety triggers (e.g., specific phobias)**
2. **Communicate expected behaviors & rules to child**
3. **Use social stories, visual supports, and timers**
4. **Prepare an exit strategy if child becomes over-regulated**
5. Understand the side-effects of anxiety medication the child may be on

(Keefer, 2019)

1. **Provide child with the appropriate methods to communicate they need a break**
2. **Communicate expected behaviors for you and child**
3. **Be aware of anxiety triggers in therapy materials**
4. **Use visual schedules, support, and social stories**
5. **Keep child's sensory needs in mind**
6. **Plan pre-meltdowns**
7. **Limit choices**
8. Prime the child/family ahead of time (e.g., a meet and greet time prior to starting therapy to build rapport with child)
9. Use group therapy (social skills groups)
10. Advocate for child to use transition object

(Hartley, 2021)

Key Strategies

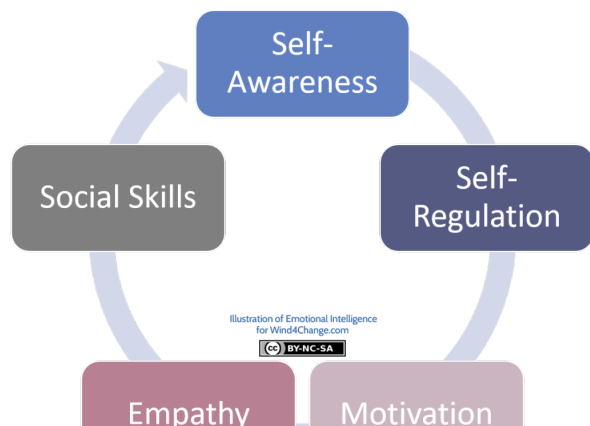
Before Therapy

- Prime child/family ahead of time
- Identify potential internal and external stressors
- Communicate expected behaviors and rules for you and child
- Reduce the number of available toys or choices

During Therapy

- Ensure child understands and uses self-regulatory vocabulary and can use it across settings
- Keep sensory needs in mind
- Use auditory cues alongside visual supports
- Have a plan if child becomes over-regulated

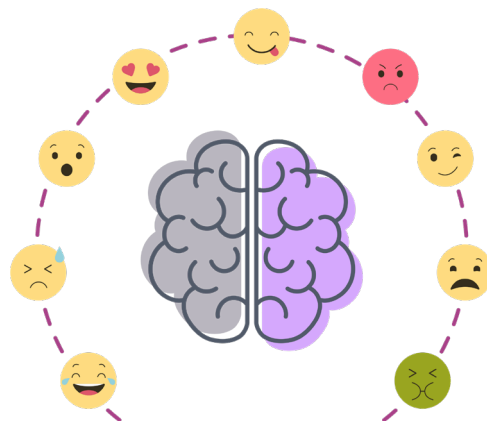
(Binnis et al., 2019; Hartley, 2021; Keefer, 2019)



This Photo by Unknown Author is licensed under CC BY-SA-NC

| What Zone Are You In? | | | |
|-------------------------------|--|--|---|
| Blue | Green | Yellow | Red |
| | | | |
| Sick Sad Tired Bored | Happy Calm Feeling Okay Focused | Frustrated Worried Silly/Wiggly Excited | Mad/Angry Mean Yelling/Hitting Disgusted |

This Photo by Unknown Author is licensed under CC BY-NC-ND



This Photo by Unknown Author is licensed under CC BY-NC

“The SLP’s scope of practice involves all aspects of functioning. Supporting the development of emotional or self-regulation will help children use the strategies they learned in treatment to effectively engage and participate in all areas of their life”

(Binnis et al., 2019)




Discussion

- ✓ There is much research on prevalence and type of anxiety in children with ASD
- ✓ Studies varied in participant age, ASD diagnosis, type of anxiety studied, and how they measured anxiety in children with ASD
- ✓ Conflicting statements such as prognosis of anxiety with age
- ✓ There is not a “gold standard” assessment for assessing anxiety in children with ASD
- ✓ There is a common consensus that an appropriate assessment would include an ASD diagnosis, teacher, parent, and client reports on symptoms and interdisciplinary treatment that focuses on child’s strengths, level of needs and cognitive functioning, and symptoms of ASD and anxiety

Product

PRESENTATION OF ANXIETY IN CHILDREN WITH ASD

Symptoms of Anxiety in Children with ASD



Diagnosing anxiety can be difficult in children with ASD. Factors like difficulties communicating symptoms of anxiety and overlap of symptoms such as a decrease in social interactions and repetitive interests/behaviors. Presentation of anxiety varies depending on individual support needs.

Roughly 40% of children with ASD have at least one type of Anxiety Disorder. Anxiety could present differently in children with ASD with symptoms such as:

| | |
|---|--|
| - Heightened characteristics of ASD you don't normally see (e.g., spending longer times engaged in restrictive and repetitive behaviors or greater intensity of restricted interests) | - Sensory hypersensitivity |
| - Restrictive worry and fear around interests and routines | - Unusual fears (e.g. beards) |
| - Becoming irritable or aggressive when dysregulated | - Presenting with social fear but not concerned about social rejection |
| | - Negative automatic intrusive thoughts |
| | - Symptoms of anxiety that are not age-typical |

All children with ASD are different. These signs may not be present in every child. It is important to take note of drastic differences in actions and behaviors that are long-lasting.

STRATEGIES FOR PROFESSIONALS TO USE IN THERAPY

Before Therapy

- Prime child/family ahead of time
- Identify potential stressors in materials
- Communicate expected behaviors/rules for you and the child
- Reduce the number of available choices

During Therapy

- Use self-regulatory vocabulary
- Keep sensory needs in mind
- Use spoken and visual models
- Have a plan if the child becomes over-regulated

KEY STRATEGIES FOR SLPS & OTHER PROFESSIONALS

Product

RESOURCES FOR PARENTS & PROVIDERS

Websites

**Mental Health and
Developmental
Disabilities National
Training Center**

**Autism Self Advocacy
Network**

**Autism Awareness
Center**

**Indiana Resource
Center for Autism**

**National Autistic
Society**

**Raising Children
Network**

**Centre for
Autism: Middletown**

Resources
for Caregivers
and Providers
of Children
with ASD
and Anxiety



**UNM
CDD:
Autism
Portal**

Facing Your
Fears
Program

REFERENCES

REFERENCES

- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders. Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). doi:10.1176/appi.books.9780890425596
- Anxiety: Autistic children and teenagers. (2020, November 06). Retrieved April 27, 2021, from <https://raisingchildren.net.au/autism/health-daily-care/mental-health/anxiety-and>
- Autism Programs: ASD Programs and Services Throughout the Lifespan. (n.d.). Retrieved April 27, 2021, from <https://unmhealth.org/services/development-disabilities/programs/autism-programs/>
- Autistic Self Advocacy Network. (n.d.). Retrieved April 27, 2021, from <https://autisticadvocacy.org/resources/>
- Bennie, M. (2020, August 21). Calming strategies to support a person with autism. Retrieved April 27, 2021, from <https://autismawarenesscenter.com/calming-strategies-to-support-a-person-with-autism/>
- Blims, A. V., Hutchinson, L. R., & Cardy, J. O. (2019). The speech-language pathologist's role in supporting the development of self-regulation: A review and tutorial. *Journal of Communication Disorders*, 78, 1-17. doi:10.1016/j.jcomdis.2018.12.005
- Davis, K. (n.d.). Anxiety and panic struggles. Retrieved February 22, 2021, from <https://www.idc.indiana.edu/ica/articles/anxiety-and-panic-struggles.html>
- Davis, T. E., Moore, B. N., Dempsey, T., Reuther, E. T., Podstad, J. C., Hess, J. A., ... Matson, J. L. (2011). The relationship between autism spectrum disorders and anxiety: The moderating effect of communication. *Research in Autism Spectrum Disorders*, 1(1), 324-329. doi:10.1016/j.rasd.2010.04.015
- Downey, J. (2020, October 06). News & Events. Retrieved October 07, 2020, from <https://researchautism.org/the-impact-of-anxiety-on-communication/>
- Hewitt, L. (2014). Social anxiety and PRAGMATICS in autism Spectrum DISORDERS: Cognitive behavioral therapy and its relation TO speech-language pathology. *Perspectives on Language Learning and Education*, 21(1), 5-12. doi:10.1044/P2011.1.5
- Hartley, M. (2021, March). Personal communication
- Janota, J. (2018). SLP Caseload and Workload Characteristics [Scholarly project]. In Asha.com. Retrieved August 29, 2020, from <https://www.asha.org/uploadedfiles/Schools-2018-SLP-Caseload-and-Workload-Characteristics.pdf>
- Keefer, A. (Director). (2019, March 06). Anxiety and ASD - Amy Keefer, ph.d. [Video file]. Retrieved April 07, 2021, from <https://www.youtube.com/watch?v=vkM6s-4WWQs>
- Keen, D., Adams, D., Simpson, K., Den Hoeding, J., & Roberts, J. (2017). Anxiety-related symptomatology in young children on the autism spectrum. *Autism*, 23(2), 150-158. doi:10.1177/1362636117734692
- Kerns, C. M., Kendall, P. C., Berry, L., Souders, M. C., Franklin, M. E., Schultz, R. T., ... Herrington, J. (2014). Traditional and atypical presentations of anxiety in youth with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 44(11), 2851-2861. doi:10.1007/s10803-014-2141-7
- Learn more about the zones. (n.d.). Retrieved April 13, 2021, from <https://www.zonesofregulation.com/learn-more-about-the-zones.html>
- Mental Health and Developmental Disabilities National Training Center. (2020, August 20). Retrieved April 27, 2021, from <https://www.mhddcenter.org/>
- Merrill, A. (n.d.). Anxiety and autism spectrum disorders. Retrieved February 22, 2021, from <https://www.idc.indiana.edu/ica/articles/anxiety-and-autism-spectrum-disorders.html>
- National Autistic Society. (n.d.). Retrieved April 27, 2021, from <https://www.autism.org.uk/advice-and-guidance/topics/mental-health/anxiety>
- Pickard, H., Rijdsdijk, F., Happé, F., & Maes, W. (2017). Are social and communication difficulties a risk factor for the development of social anxiety? *Journal of the American Academy of Child & Adolescent Psychiatry*, 56(4). doi:10.1016/j.jaac.2017.01.007
- Prizant, B. M., & Laurent, A. Emotional Regulation and Autism Spectrum Disorders. eHearsay, 34.
- Scope of practice in speech-language pathology. (1970, January 01). Retrieved April 13, 2021, from <https://www.asha.org/policy/guide-60849/>
- Teenage Resource. (n.d.). Retrieved April 27, 2021, from <https://teenage-resource.middletownautism.com/>
- The Children's Hospital of Philadelphia. (2017, June 14). Autism's Clinical Companions: Frequent Comorbidities with ASD. Retrieved September 30, 2020, from <https://www.chop.edu/news/autism-s-clinical-companions-frequent-comorbidities-with-asd>
- Van Steensel, F. J., Bögels, S. M., & Perrin, S. (2011). Anxiety disorders in children and adolescents with autistic spectrum disorders: A meta-analysis. *Clinical Child and Family Psychology Review*, 14(3), 302-317. doi:10.1007/s10567-011-9097-0
- What is Autism Spectrum Disorder? (2020, March 25). Retrieved September 30, 2020, from <https://www.cdc.gov/ncbddd/autism/facts.html>
- White, S. W., Oswald, D., Ollendick, T., & Cahill, L. (2009). Anxiety in children and adolescents with autism spectrum disorders. *Clinical Psychology Review*, 29(3), 216-229. doi:10.1016/j.cpr.2009.01.003



Presentation to LEND cohort



Presentation to SHS students via
webinar



Presentation in my ASD course
(SHS539) for my final project “Hot
Topics in ASD”

Dissemination

Conclusion

What I learned about.....

- Conducting a (small) literature review and producing better research
- ASD and the role the SLP plays in treating social communication differences
- Anxiety and how it could impact different populations I may serve in the future including those with ASD but also individuals with selective mutism, ADHD, and fluency disorders
- The importance of interdisciplinary practice in conjunction with neurodevelopmental disabilities and mental health
- Resources available for caregivers of individuals with ASD
- The scope of practice of an SLP and how important counseling and education can be to families and other professionals

References

- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders. *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)*. doi:10.1176/appi.books.9780890425596
- Anxiety: Autistic children and teenagers. (2020, November 06). Retrieved April 27, 2021, from <https://raisingchildren.net.au/autism/health-daily-care/mental-health/anxiety-asd>
- Autism Programs: ASD Programs and Services Throughout the Lifespan. (n.d.). Retrieved April 27, 2021, from <https://unmhealth.org/services/development-disabilities/programs/autism-programs/>
- Autistic Self Advocacy Network. (n.d.). Retrieved April 27, 2021, from <https://autisticadvocacy.org/resources/>
- Bennie, M. (2020, August 21). Calming strategies to support a person with autism. Retrieved April 27, 2021, from <https://autismawarenesscentre.com/calming-strategies-to-support-a-person-with-autism/>
- Binns, A. V., Hutchinson, L. R., & Cardy, J. O. (2019). The speech-language pathologist's role in supporting the development of self-regulation: A review and tutorial. *Journal of Communication Disorders*, 78, 1-17. doi:10.1016/j.jcomdis.2018.12.005

References

- Davis, K. (n.d.). Anxiety and panic struggles. Retrieved February 22, 2021, from <https://www.iidc.indiana.edu/irca/articles/anxiety-and-panic-struggles.html>
- Davis, T. E., Moree, B. N., Dempsey, T., Reuther, E. T., Fodstad, J. C., Hess, J. A., . . . Matson, J. L. (2011). The relationship between autism spectrum disorders and anxiety: The moderating effect of communication. *Research in Autism Spectrum Disorders*, 5(1), 324-329. doi:10.1016/j.rasd.2010.04.015
- Downey, J. (2020, October 06). News & Events. Retrieved October 07, 2020, from <https://researchautism.org/the-impact-of-anxiety-on-communication/>
- Hewitt, L. (2014). Social anxiety and PRAGMATICS in autism Spectrum DISORDERS: Cognitive behavioral therapy and its relation TO speech-language pathology. *Perspectives on Language Learning and Education*, 21(1), 5-12. doi:10.1044/lle21.1.5
- Hartley, M. (2021, March). Personal communication
- Janota, J. (2018). *SLP Caseload and Workload Characteristics* [Scholarly project]. In *Asha.com*. Retrieved August 29, 2020, from <https://www.asha.org/uploadedFiles/Schools-2018-SLP-Caseload-and-Workload-Characteristics.pdf>

References

- Keefer, A. (Director). (2019, March 06). *Anxiety and ASD - Amy Keefer, ph.d.* [Video file]. Retrieved April 07, 2021, from <https://www.youtube.com/watch?v=wkM6z-4WWQs>
- Keen, D., Adams, D., Simpson, K., Den Houting, J., & Roberts, J. (2017). Anxiety-related symptomatology in young children on the autism spectrum. *Autism*, 23(2), 350-358. doi:10.1177/1362361317734692
- Kerns, C. M., Kendall, P. C., Berry, L., Souders, M. C., Franklin, M. E., Schultz, R. T., . . . Herrington, J. (2014). Traditional and atypical presentations of anxiety in youth with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 44(11), 2851-2861. doi:10.1007/s10803-014-2141-7
- Learn more about the zones. (n.d.). Retrieved April 13, 2021, from <https://www.zonesofregulation.com/learn-more-about-the-zones.html>
- Mental Health and Developmental Disabilities National Training Center. (2020, August 20). Retrieved April 27, 2021, from <https://www.mhddcenter.org/>

References

- Merrill, A. (n.d.). Anxiety and autism spectrum disorders. Retrieved February 22, 2021, from <https://www.iidc.indiana.edu/irca/articles/anxiety-and-autism-spectrum-disorders.html>
- National Autistic Society. (n.d.). Retrieved April 27, 2021, from <https://www.autism.org.uk/advice-and-guidance/topics/mental-health/anxiety>
- Pickard, H., Rijdsdijk, F., Happé, F., & Mandy, W. (2017). Are social and communication difficulties a risk factor for the development of social anxiety? *Journal of the American Academy of Child & Adolescent Psychiatry*, 56(4). doi:10.1016/j.jaac.2017.01.007
- Prizant, B. M., & Laurent, A. Emotional Regulation and Autism Spectrum Disorders. *eHearsay*, 34.
- Scope of practice in speech-language pathology. (1970, January 01). Retrieved April 13, 2021, from <https://www.asha.org/policy/sp2016-00343/>
- Teenage Resource. (n.d.). Retrieved April 27, 2021, from <https://teenage-resource.middletownautism.com/>

References

- The Children's Hospital of Philadelphia. (2017, June 14). Autism's Clinical Companions: Frequent Comorbidities with ASD. Retrieved September 30, 2020, from <https://www.chop.edu/news/autism-s-clinical-companions-frequent-comorbidities-asd>
- Van Steensel, F. J., Bögels, S. M., & Perrin, S. (2011). Anxiety disorders in children and adolescents with autistic spectrum disorders: A meta-analysis. *Clinical Child and Family Psychology Review*, 14(3), 302-317. doi:10.1007/s10567-011-0097-0
- What is Autism Spectrum Disorder? (2020, March 25). Retrieved September 30, 2020, from <https://www.cdc.gov/ncbddd/autism/facts.html>
- White, S. W., Oswald, D., Ollendick, T., & Scahill, L. (2009). Anxiety in children and adolescents with autism spectrum disorders. *Clinical Psychology Review*, 29(3), 216-229. doi:10.1016/j.cpr.2009.01.003

Questions?

THANK YOU, CHRIS!!