

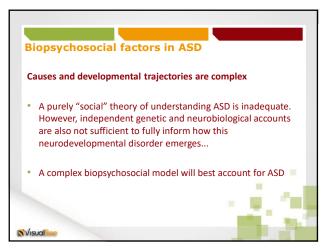


	Biopsychosocial factors in ASD (Higgs & Carter, 2015)
	Cognitive explanations: social cognition deficits and atypical non-social domain general processing
	 i.e., executive functioning problems such as working memory and inhibitory control or weak coherence which is the tendency to process part rather than perceiving the whole
	• Hypothesized strengths → analyzing and constructing systems
	 Weaknesses → 'Mind-blindedness' (absence of theory of mind/TOM) -inability to imagine thoughts and feelings of others-failure to recognize behavior as inappropriate; affective empathy (difficulty recognizing emotional states in
	others)
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Biopsychosocial factors in ASD Language processed differently secondary to impaired receptive processing Visual cognitive style with enhanced efficiency in processing visual stimuli and superior visual acuity Environmental factors: parental age, low birth weight, multiple births, maternal infections during pregnancy require investigation Fetal androgen theory hypothesizes levels of fetal testosterone may lead to ASD vulnerability

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Biopsychosocial factors in ASD • Evidence emerging to determine role of genetic heritability→ Chromosomal and gene disorders→ 5-15% (Higgs & Carter, 2015) Constantino (2018) • has determined autism is predominantly influenced by additive genetic factors • Even sporadic cases in families is substantially influenced by the aggregation of recessive or additive genetic risk • Presents overwhelming evidence for the influence of additive genetic risk accounting for a majority of the population-attributable-risk for autism • Autism recurs in autism-affected families 20 times more commonly than in the general population





Drilling Down-Let's start at the beginning...(Constatntino, et al. 2017)

Social Visual Engagement:

"Long before infants reach, crawl or walk, they explore the world by looking: they look to learn and to engage, giving preferential attention to social stimuli, including faces, face-like stimuli and biological motion"

Social Visual Engagement:

"...shapes typical infant development from birth and is pathognomonically impaired in children affected by autism"

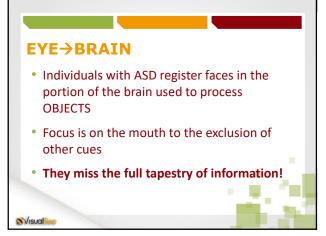
Social Visual Engagement:

"...including preferential attention and the timing, direction, targeting of individual eye movements, is strongly influenced by genetic factors, with effects

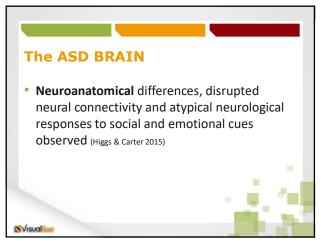
Social Visual Engagement:

"Moreover, the characteristics that are most highly heritable, preferential attention to eye and mouth regions of the face, are also those that are differentially decreased in children with autism.

Failure to see the social world: • A combination of neurological differences in the brain conspired to blind the individual to learning from social interactions which is common sense to most of us about the feelings and intentions of others • Many individuals on the spectrum simply do not see those countless cues and expressions, intonations, and body language that give meaning to social interactions and understanding to communications (Mahoney, 2019)







The ASD BRAIN • MRI→points to lack of integration of distributed functions and disruptions in the way the brain function and is modulated in relation to changing task demands →increase in white matter in tracts important for language and social cognition (Latham, 2014) • ATYPICAL SOCIAL BRAIN RESPONSES! • Exhibit reduced activation in prefrontal cortex during executive functioning tasks • NEURODEVELOPMENTAL TRAJECTORIES ARE NOT HOMOGENEOUS...but inhibitory control and higher cognitive levels are preserved in some individuals with high fx ASD.



Latest research re: differences in brain structure (Pretzsch, et.al, 2022)

• ASD symptoms impact adaptive behavior related to "the development and application of the abilities required for the attainment of personal independence and social sufficiency."

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More neurodiversity identified: However, across the lifespan, some with ASD improve, some regress and some remain largely unchanged... Problematic for a "one-size-fits all" approach More targeted approaches are necessary...

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EU-AIMS Longitudinal European Autism Project (LEAP) • Largest longitudinal sample worldwide • Current study: • N= 483 (204 w/ ASD, 279 neurotypical) • Ages 6-30 at two time points: 12 and 24 mths • Measures included the Vineland Adaptive Behavior Scale-II, MRI DATA, Neuroimaging (cortical volume, cortical thickness and surface area)

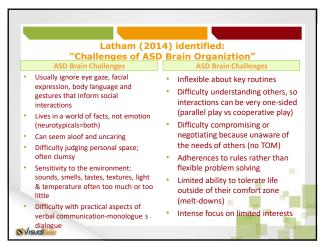
Aim of the study: Compare neuroanatomy between groups (i.e., increasers vs decreasers vs no-changers) Examine if deviations from the neurotypical neuroanatomical profile are associated with individual outcomes Explore the neuroanatomical differences' potential genetic correlates

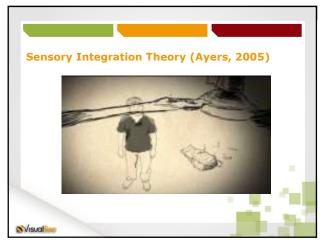
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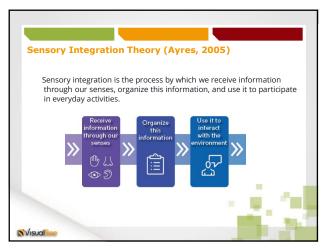
In a nutshell outcomes among: Increasers vs decreasers vs no-changers: • Widespread neuroanatomical differences between increasers and decreasers in cortical volume, cortical thickness and surface area. • Decreasers and no-changers differed in cortical volume and surface area. • Greater neuroanatomical deviation predicted worsening in adaptive behavior. • Genetic underpinnings supported= greater polygenic variation

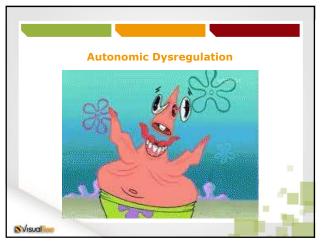
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Respond Differently to meds Benzodiazipines=may do nothing, may increase, may decrease Antipsychotics= psychosis may be transient episode→ can stop Beta blockers-=may be best because they prevent the body from responding to the experience of adrenalin—can't stand touch-body sensations most difficult Risperdol and Abilify=best for assaultive and out of control behaviors Oxytocin=latest research→ enhances bonding between human









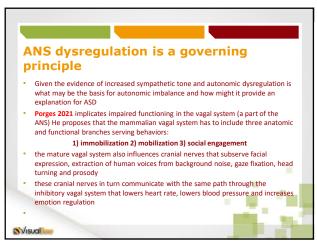


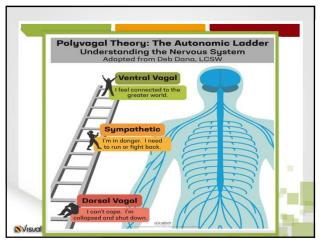
Wh	ere did Sugarman start?
1.	Began by examining RRBs as COMPENSATORY for increased sympathetic arousal
2.	Then explored neurophysiological manifestations of sympathetic arousal observed in individuals with ASD
3.	Finally, positing that hyperarousal is a manifestation of autonomic dysregulation, he described how autonomic abnormalities can account for the core
	symptoms of autism spectrum disorder and common comorbidities
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(Sugarman, et al. 2013) Restricted and repetitive behaviors in ASD can be viewed as part of a continuum of stress reducing activities observed throughout the animal kingdom- seen as a displacement behavior in response to stress These behaviors are described as "without perceptible purpose of the context in which they occur" other than to reduce stress Ritual behaviors in humans have been associated with apprehension of dangers and is correlated with anxiety and fearful traits. Further, increase displacement behaviors provide a better measure of anxiety and negative affect than verbal statements and facial expression

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Over-arousal is integral to autism spectrum disorder Extant research has established that anxiety is ubiquitous in autism spectrum disorder, particularly when confronted by novel stimuli and increases with environmental novelty Sugarman reports evidence that people with autism spectrum disorder have elevated sympathetic arousal even at rest, "Their autonomic engine" idles high Sympathetic over arousal results in the conscious feeling of state anxiety Neurophysiological findings involving the amygdala and oxytocin support the observation of over- arousal in ASD Oxytocin is further implicated in social brain activation in individuals with ASD Knowing that social deficits are a primary component in ASD, and taken the view that over-arousal is also core, it is expected that oxytocin is measured at lower levels in people with ASD than controls-this proves

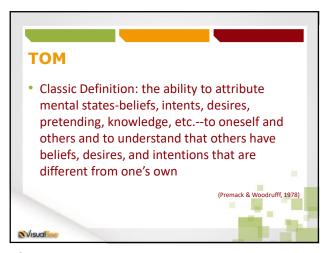




NOTE: further support... • Comorbidities of sleep disorders, gastrointestinal dysfunction, tic disorders may also relate to autonomic dysregulation and the support is causal role • the vagal system is implicit in all three of these problems













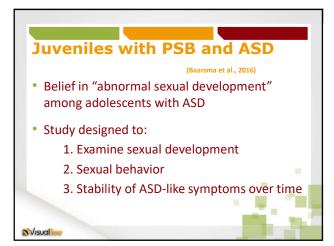


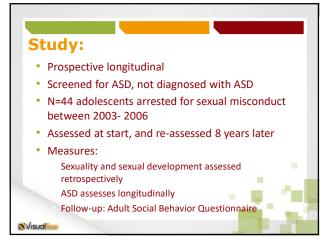
General Statement re: Sexuality Among Those with Disabilities: Individuals with disabilities experience sexual interest and needs for interpersonal intimacy They often have limited information and/or normative developmental trajectories that allow for or serve to cultivate adaptive sexual experiences A disability does not preclude one to problem sexual behavior; it can make one more vulnerable to sexual exploitation and consequential errors in judgment that lead to what is perceived as sexual misconduct or illicit sexual behavior.

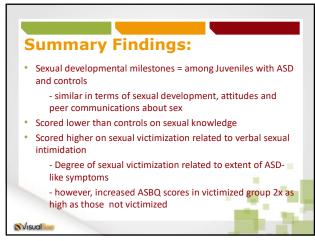
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Common sexual activities among non-clinical samples of children Pretending to be the Kissing non-family children opposite sex Kissing non-family adults Masturbating with hand · Sitting with crotch exposed Looking at nude pictures Undressing in front of others Exposing genitals to adults • Walking around nude or in • Touching genitals in public underwear • Undressing in front of others • Interest in opposite sex Touching genitals at home Looking at people undressing Scratching crotch Touching breasts (Friedrich, et. al., 1991) **S**√isual

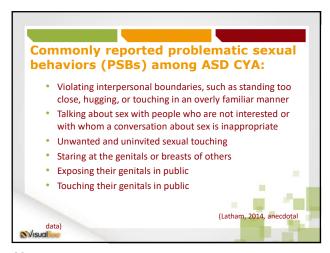


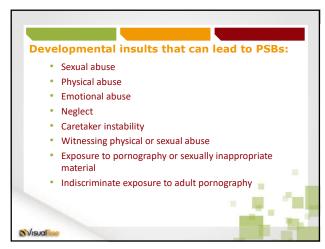




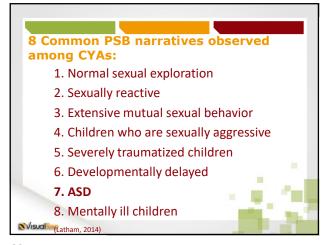


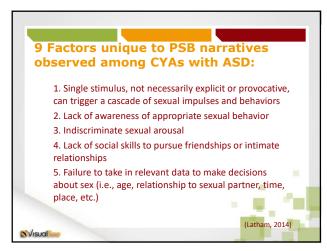




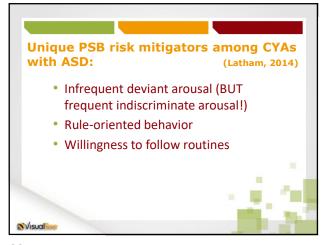










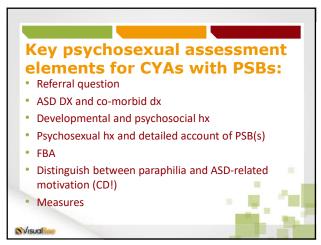


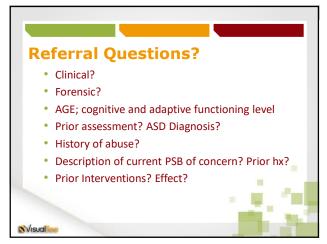
Important to recognize in CYAs with ASD/PSBs: Rigid about routines Rigid and perseverative style may include PSBs Inflexible problem-solving style Inflexible coping skills, tantrums or bizarre behavior when overwhelmed Expressive language far exceeds ability to understand and use language to help change behavior Literal use of language (can limit use of metaphor/humor) Difficulty distinguishing relevant from irrelevant detail

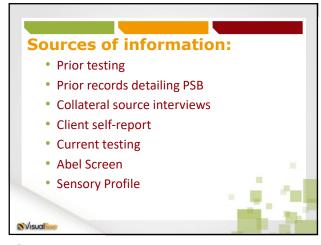
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Important to recognize in CYAs with ASD and PSBs: (continued) • There may be no history of trauma and little, if any, developmental insult • CYAs with ASD rarely have PTSD in response to trauma • Odd motor behaviors and poor eye contact are not deliberate • Limited social interaction, 'parallel play' may be all they can manage • Lack of emotional reciprocity or egocentrism characteristic of ASD and is not narcissism (Latham, 2014)









Assess for ASD and co-morbid disorders through extensive Developmental and Psychosocial History

- Detailed developmental course from birth to current age, emergence of ASD symptoms and effects, and onset of comorbid symptoms, adaptive behavioral function across developmental course, socio-relational development.
- Can use structured interview measures

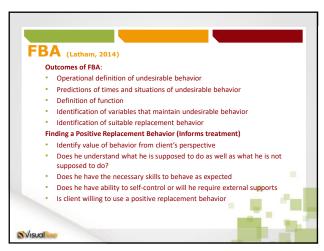
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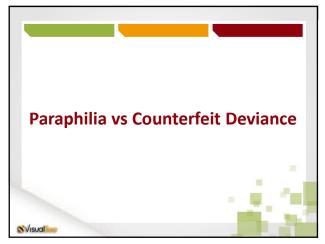
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Psychosexual History and PSB

- Detailed account: early, normative sexual play, sexual abuse, family mores regarding sex, access to sex education, sociosexual behavior prepubertal, pubertal development, relational/dating experience, sexual orientation, gender identity, paraphilic interests
- Emergence of PSB and detailed accounting of PSB of concern







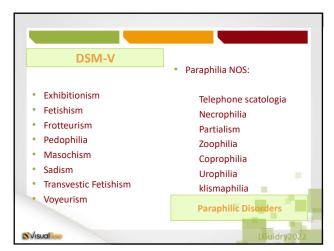
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Paraphilia:

• The essential features of a Paraphilia are recurrent, intense sexually arousing fantasies, sexual urges, or behaviors generally involving 1) nonhuman objects, 2) the suffering or humiliation of oneself or one's partner, or 3) children or other non-consenting persons that occur over a period of at least 6 months. The behavior, sexual urges, or fantasies cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

DSM-V. 2013

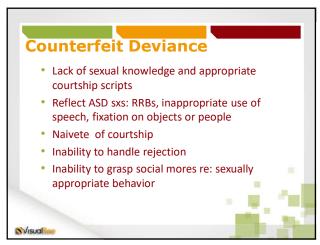
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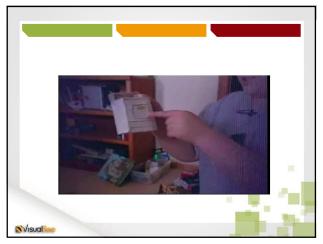




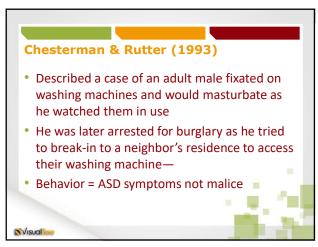
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MAHONEY (2009) Counterfeit Deviance CD occurs when an individual engages in behavior that "topographically look[s] like a Paraphilia but lack[s] the recurrence of and pathological use of sexual fantasies, urges, behaviors" (Hingsburger, Griffiths, & Quinsey, 1991) Instead the behavior is explained by "experiential, environmental or medical factors rather than of a Paraphilia" • DSM-IV =no differential dx of CD DSM-ID=CD as a differential dx for paraphilia "based on an evaluation of the in dividual' environment, sociosexual knowledge and attitudes, learning experiences, partner selection, courtship skills and biomedical influences" CD is a differential dx for ASD individuals accused of deviant sexual behavior Careful assessment







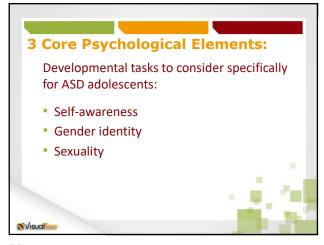












Treatment for CYA with ASD and PSBs Latham (2014) recommends: Medications do not cure but can help with symptoms of coexisting conditions (i.e., depression, anxiety, OCD) Social skills and sex education training based on "scripts" that teach rules for comfortable social interaction CBT to help manage emotions and limit obsessive interests and repetitive behaviors (i.e., J. Brown DATE!) Occupational or PT for for sensory integration problems or poor coordination Speech/language therapy to aid pragmatics of speech→ the give-and-take of normal conversations Parent and support staff training to educate re: ASD and teach behavioral techniques

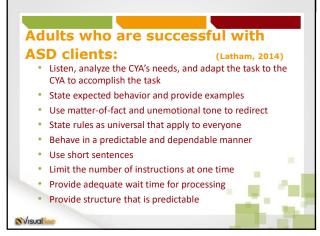
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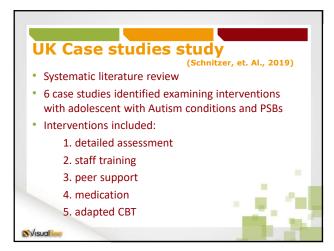
AVOID! (Latham, 2014) Process Groups! Emphasis on suppression of negative behaviors (Just say 'no'!) Talk of past trauma except to assure child is safe now Focus on past behavior and 'why' questions Relapse Prevention as primary intervention

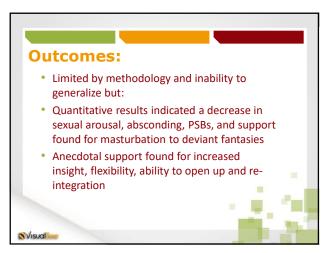
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Emphasize! (Latham, 2014) Structure, order and routine Approach goals over avoidance goals Teach compensatory strategize that help organize life, manage complexity and reduce misunderstandings Enhance practical social skills with teaching and practice Use multi-sensory approaches







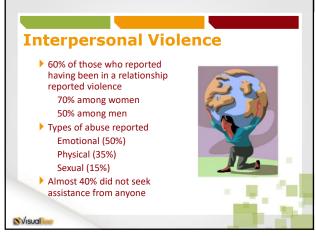






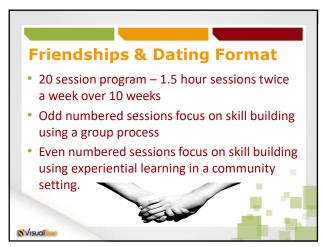
Romantic Relationships and Adults with Developmental Disabilities • Ward, Bosek & Trimble (2010) conducted a study of relationships among adults with developmental disabilities in Alaska. • 85% were or had been in a romantic relationship after high school. • Partnered relationships are important in the lives of adults with developmental disabilities. • For many participants, the time spent with their girl/boyfriends was limited, and they wanted to spend more time together.

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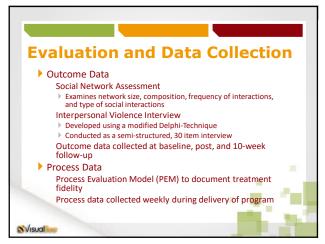
Friendships & Dating Purpose • To prevent violence in relationships and to teach social skills necessary to develop healthy, meaningful relationships for adults with intellectual and developmental disabilities. • Created by the University of Alaska Anchorage Center for Human Development.



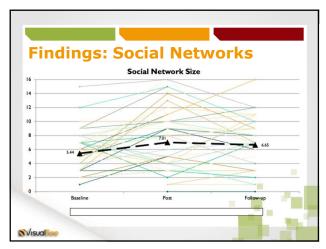


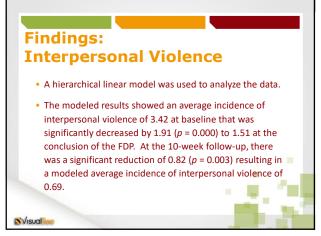


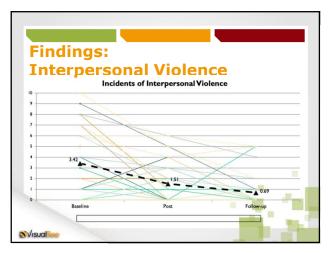




Findings: Social Networks • A hierarchical linear model was used to analyze the data. • The modeled results showed an average social network size of 5.44 at baseline that was significantly increased by 1.57 (p = 0.007) to 7.01 at the conclusion of the FDP. At the 10-week followup, there was an insignificant reduction of 0.36 (p = 0.554) resulting in a modeled average social network size of 6.65.







Findings: Treatment Fidelity Direct service personnel can deliver the program with a high degree of fidelity Participants engage at high rates over the course of the 10-week program Facilitators delivered content as intended Facilitators followed the Friendships & Dating Manual PEM results have been similar across all sites PEM results strengthen outcome results

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Participant Feedback "I wanted to learn more about building healthy relationships and friendships." "My favorite part is that I am hanging out with my friends from class." "I met my girlfriend here in this class." "I am in a relationship right now and it's going okay, but it's kind of rocky and I think that I can use what I have learned to make it better." "I have been here all this time in [community] and I never knew there was a trail in [that] field."

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Facilitator Feedback "I think they enjoyed the socialization part and sharing... They've got more of a social connection. A lot of them are doing things together... they are all coordinating their bowling [schedule]." "We had a great time doing the Friendships and Dating class. I think all of us are going to miss meeting each week. As a group we talked about getting together for fun in the future." "I got more out of facilitating the class than the participants taking it. Thank you for the opportunity."

Care Provider Feedback "I think that the interaction with people their age that have the same situation going on, as far as learning how to date... is very important." "I think my client learned how to turn a boy down in a positive way. I think she was comfortable letting someone know that hey, she is not ready to date. Because before she used to get frustrated ... and she wouldn't tell someone that she didn't want a boyfriend, and then after the class she dealt with it in a different way." "Thank you for doing this because there is such a need for this."

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Recommendations Safety training alone is not enough to prevent interpersonal violence, people need opportunities to develop and engage in healthy relationships. More research needs to be conducted on meaningful relationships and sexuality for people with developmental disabilities. Programs should use process or treatment fidelity measures to document delivery of intervention components.

