

REDUCING STRESS, ANXIETY, & MEDICAL TRAUMA IN CHILDREN WITH AUTISM

Sarah Minshew, MSN, RN, CPN & Shanna Roenicke, BA, CCLS

BACKGROUND & SIGNIFICANCE

- 1 in 36 U.S. children are diagnosed with autism spectrum disorder (ASD).¹
- Co-morbidities include epilepsy, sleep disorders, gastrointestinal disorders, mental health, and feeding challenges.²
- Children with ASD:
 - Are hospitalized at higher rates compared to typically developing peers.³
 - Have increased stress, anxiety, and medical trauma when undergoing medical procedures³ which can lead to decreased compliance and increased safety concerns.
 - Can be just as successful as neurotypical peers at procedural compliance when given time for desensitization.⁴

PURPOSE

- This evidence-based practice project (EBP) aimed to explore the PICO question: For children with ASD, what are best practices in reducing stress, anxiety, and medical trauma when undergoing medical procedures?
- An organizational model based on the EBPI Model© by Brown & Ecoff⁵ was used to guide the project, which included a review of 30 articles and the selection of eight for in-depth analysis.

SYNTHESIS OF EVIDENCE

Components of procedures that cause stress, anxiety, medical trauma	Characteristics of ASD that increase procedural stress, anxiety, and medical trauma
Unfamiliar environment & staff ³	Restricted and repetitive behaviors ²
Unfamiliar equipment ³	Sensory concerns ²
Potential for pain ⁶	Social and communication deficits ²
Time/length of procedure ⁶	Need for sameness and routine ²
Environmental stressors ³	Difficulty with transitions ²
Past medical/emotional trauma ⁷	

Best Practices from the Literature

- Medical Play Kits^{5,8,9}
- Patient/Caregiver/Staff Education^{5,8}
- Visual Cues (Social Stories, Pictures, PECS Cards)^{5,7}
- Family Centered Care (Individualized Care Plans)^{6,7,9}
- Environment/Routine Adaptation^{5,9}
- Distraction^{7,9}
- Site Tours⁵
- Coping Kit (Sensory/Communication Items)⁷
- Comfort Holds⁵
- Sub Wait Rooms & Fast Track System^{3,6}
- Systematic Desensitization⁸

Best Practices from Other Facilities

- Adaptive Care Program¹⁰
- Simulation Center
- Extended Reality
- Online Library of Resources
- Care Coordination Across Specialties

IMPLEMENTATION

- Developed care plans to address the needs of ASD patients undergoing blood draws.
- Introduced site tours of procedural areas and medical play.
- Engaged child life specialists, psychologists, and behavioral teams in preparing children through systematic desensitization.
- Placed sensory cart in each phlebotomy room.
- Provided comprehensive education to staff, patients, and caregivers.

EVALUATION

- A post-lab draw questionnaire was used to evaluate outcomes, with preliminary results showing promising improvements.



"All the desensitization...even helped at his primary Doctor to not be so afraid. Before he would cry, and he would get anxiety. He even lets the Doctor listen to his lungs now! He still has a little hesitation, but he can walk from room to room, whereas before he would not go inside, cry, or elope."

- Further evaluation and data collection will ensure ongoing improvement in care for children with autism undergoing medical procedures.

RELEVANCE TO PRACTICE

- Key strategies include family-centered approaches, preparation, standardized protocols, and desensitization.
- Personalized plans improve staff readiness and patient adherence.
- Techniques like site tours and medical play reduce children's procedural anxiety.
- Engaging with specialists in systematic desensitization better prepares children for procedures like blood draws.
- These strategies could be adapted and applied to other medical procedures and settings.

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Corresponding authors:
sarah.toberty@eagles.cui.edu &
sroenicke@choc.org