

Safety in Mind: Elopement Behavior in Autistic Children

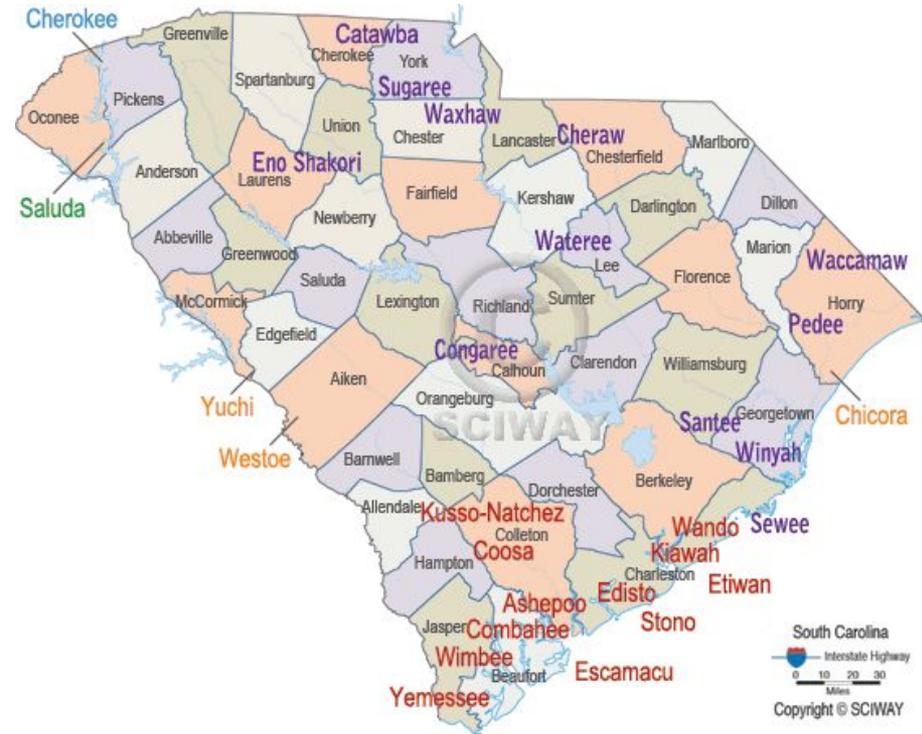
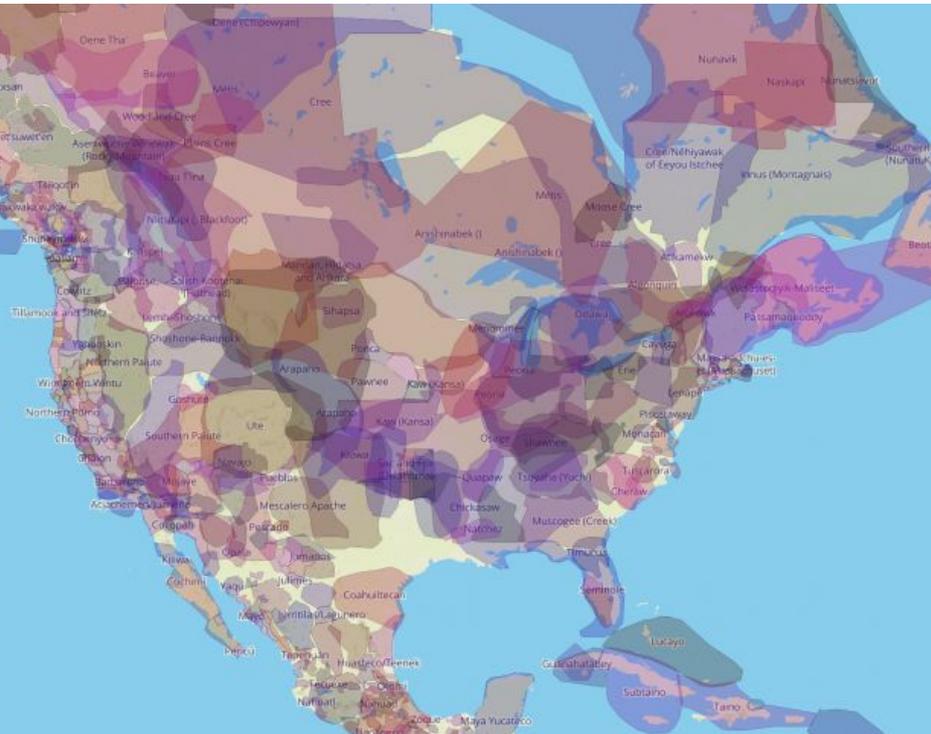
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Disclosures

- None

Land Acknowledgement



Objectives

- Describe elopement behavior
- Identify risk factors increasing an autistic child's risk of exhibiting elopement behavior
- Discuss practical, respectful ways to support safety across various settings
- Understand barriers associated with addressing elopement behavior

Background



Background

PIEDMONT

Cincinnati
autism

Office

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Count

Miss

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killed

by: Emily Mikkelsen
Posted: Sep 9, 2025
Updated: Sep 9, 2025

police

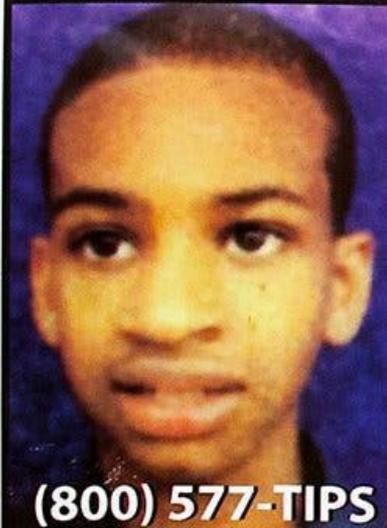
Missing
Susquehanna

Missing teen

KAKE News Sep 10, 2025 Updated Sep

MISSING

Avonte Oquendo



(800) 577-TIPS

share this flier



share this flier at facebook.com/missingcases

Avonte Oquendo (14 yrs.) was last seen at his Long Island City, Queens, NY school at 12:38 p.m. on Friday (10/4/2013). Avonte is autistic and is not able to communicate verbally. He was caught on surveillance video running out of the school located on 51st Avenue. Avonte Oquendo is described as a Black male, 5'3" tall, and weighs 120 lbs. He was last seen wearing a gray striped shirt, black jeans, and black sneakers. Avonte Oquendo has no history of running away. If you have seen Avonte Oquendo, know of his whereabouts, or have information on this case, you are asked to contact the **NYPD Crime Stoppers** at **(800) 577-TIPS**, log onto the Crime Stoppers website <http://crimestoppers.nyc.gov>, or text tips to 274637 (CRIMES) and enter TIP577.

year-old with

with autism
Orleans:

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ita police say

Background

- Elopement behavior (EB)
 - Leaving an area without permission and placing themselves in a potentially dangerous situation ¹
 - AKA wandering, bolting, fleeing
 - Is an age-expected behavior that occurs in early toddlerhood ³

References:

1- Anderson, C. et al. Occurrence and family impact of elopement in children with autism spectrum disorders. *Pediatrics*, 2012.

2- Feldman, H. et al. (2022). *Developmental-behavioral pediatrics e-book*. Elsevier Health Sciences.

Background

- EB Literature
 - Paucity of studies despite severe implications
 - Previous studies found 1/3 – 1/2 of autistic children exhibit EB ^{1,2,3}
 - Data obtained from online/telephone surveys; English
 - 2017 study examined >800 missing person cases related to autism + elopement over 5-year period ⁴
 - ~1/3 were fatal or required medical attention
 - > 1/3 classified as “close calls”
 - 2019 study measured efficacy of various types of elopement preventive measures (EPM) ⁵

References:

- 1- Anderson, C. et al. Occurrence and family impact of elopement in children with autism spectrum disorders. *Pediatrics*, 2012.
- 2- Kiely, B et al. Prevalence and correlates of elopement ... in the United States. *PloS one*, 2016.
- 3- Rice, C. E. et al. Reported wandering behavior among children with autism spectrum disorder.... *J Peds*, 2016.
- 4- McIlwain, L. F., W. (2017). Mortality & Risk in ASD Wandering/Elopement 2011-2016.
- 5- Andersen, A.M., et al., *Elopement Patterns and Caregiver Strategies*. Journal of Autism and Developmental Disorders, 2019.

Study re: Lifetime EB and Current EB Use

RESEARCH ARTICLE

Preventing Elopement in Children With Autism Spectrum Disorder

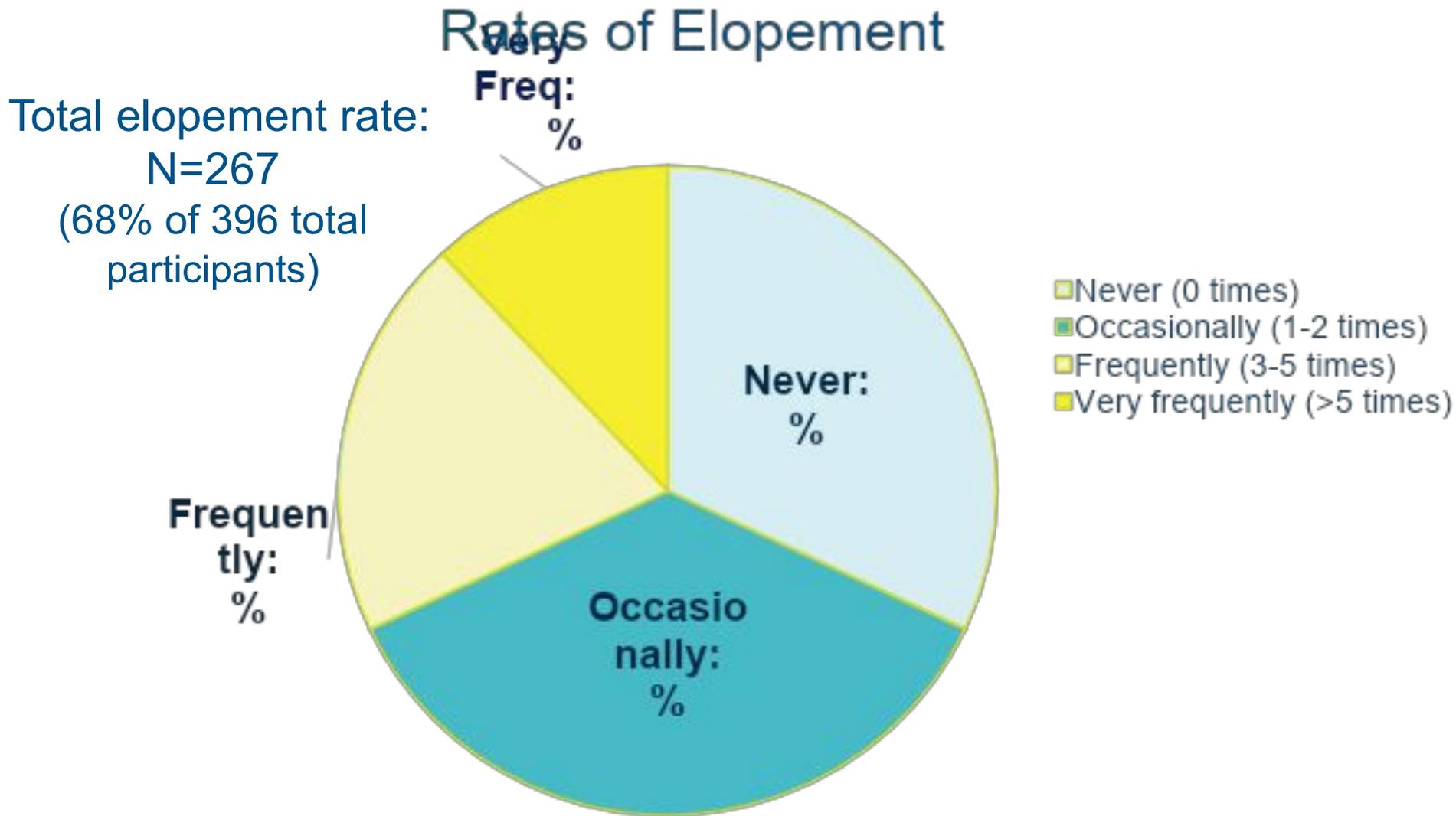
Silvia Pereira-Smith, M.D. , Andrea Boan, Ph.D. MSCR, Laura A. Carpenter, Ph.D. , Michelle Macias, M.D., and Angela LaRosa, M.D.

Reports of missing children with autism spectrum disorder (ASD) are common in the media, and elopement can lead to dire consequences. This study quantified the use of preventive measures that target elopement, plus identified child/family characteristics associated with elopement and the use of preventive measures. This cross-sectional study included 394 caregivers of children ages 2–17 years with ASD followed in an academic medical center's Developmental-Behavioral Pediatrics clinic. Details about elopement, preventive measure use, and sociodemographic characteristics were assessed *via* an investigator-designed, parent advocate-approved questionnaire, while pertinent clinical factors were extracted from patients' electronic health records. Two hundred and sixty-seven caregivers (68%) reported elopement by their child. Elopement risk was not associated with sociodemographic characteristics, nor with any specific comorbidity or neurobehavioral medication. Children with limited communication skills were more likely to have a history of elopement (OR 2.24, 95% CI 1.30–3.84; $P = 0.004$). The most common preventive measure used was lock(s) at top of doors (51%), while less than a quarter of families were using handicap permits, signs/visual markers, or tracking devices. Implementation of certain modifications was statistically associated with socioeconomic status and comorbidities of interest. In addition to supporting previous literature about the increased elopement risk in children with limited communication skills, this study is the first to reveal that caregiver use of numerous preventive measures varies widely. The associations noted with use of specific preventive measures can help guide recommendations for this dangerous comorbid symptom, and provide information needed for future studies to assess the efficacy of various preventive measures. *Autism Res* 2019, 00: 1–8. © 2019 International Society for Autism Research, Wiley Periodicals, Inc.

Lay Summary: Elopement, defined as leaving an area without permission and placing oneself in a potentially dangerous situation, is a behavior exhibited by many children with autism. There is little information about the use of various modifications that target elopement in the pediatric population. This study identifies child/family characteristics that were related to elopement and the use of modifications, and stresses the importance of counseling families of children with autism about elopement.

Keywords: autism spectrum disorder; elopement; preventive measure

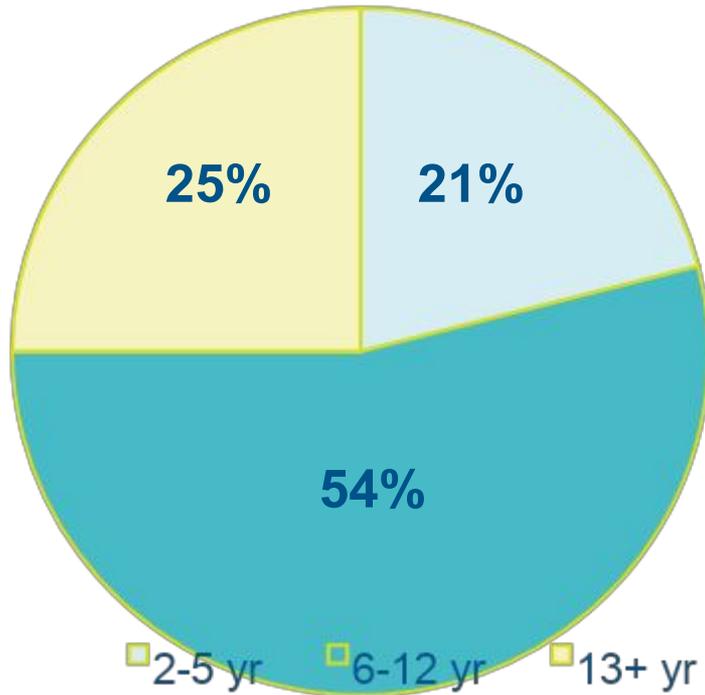
Study re: Lifetime EB & Current EPM Use



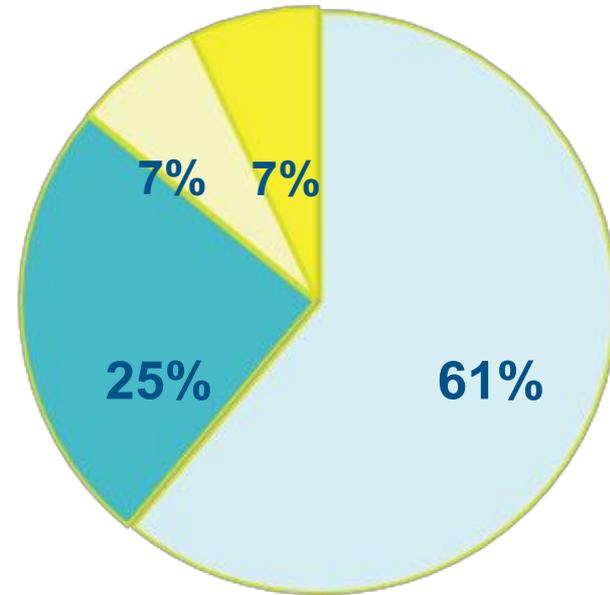
Reference: Pereira-Smith, S. et al. (2019). Preventing elopement in children with autism spectrum disorder. *Autism Research*, 12(7), 1139-1146.

Study re: Lifetime EB & Current EPM Use

Age



Race/Ethnicity



- White, non-Hisp.
- Black, non-Hisp.
- Hispanic
- Multiracial/Other

Study re: Lifetime EB & Current EPM Use

Clinical Characteristics

	Total n=394 (%)	Eloped n=267 (%)	Never Eloped n=127 (%)	P-value
Level of Communication				
Crying, hand-leading, and/or echolalia	61 (16)	44 (17)	17 (15)	.17
Uses pictures, gestures, and/or simple sentences	109 (29)	86 (33)	23 (20)	.004 (OR 2.24, 95% CI 1.30-3.84)
Speak in full sentences	203 (54)	127 (49)	76 (66)	<i>reference</i>

Risk Factors for EB in Autistic Children

- Limited communication skills ^{1, 2}
- Coexisting conditions?

References:

1- Rice, C. E. et al. Reported wandering behavior among children with autism spectrum disorder... *J Peds*, 2016.

2- Pereira-Smith, S. et al. (2019). Preventing elopement in children with autism spectrum disorder. *Autism Research*, 12(7), 1139-1146.

Study re: Lifetime EB & Current EMP Use

EPM Use in Caregivers Reporting EB in Their Child

Preventative Measures (n = # reported elopement)	Current Use by Families
Locks at the TOP of the doors (n= 265)	51%
ABA therapy (n= 261)	45%
Home alarm System (n=264)	37%
Awareness of elopement by neighbors (n= 265)	37%
IEP accommodation (n= 262)	35%
Safety harness (n= 264)	29%
Disabled persons placard (n= 266)	23%
Signs/visual markers (n=266)	18%
Medical bracelet (n= 266)	15%
Awareness of elopement by law enforcement (n= 265)	12%
Tracking device (n= 266)	11%
Service animal (n= 266)	3%



<25%

Study re: EMP Use by Efficacy & Burden

■ Effective

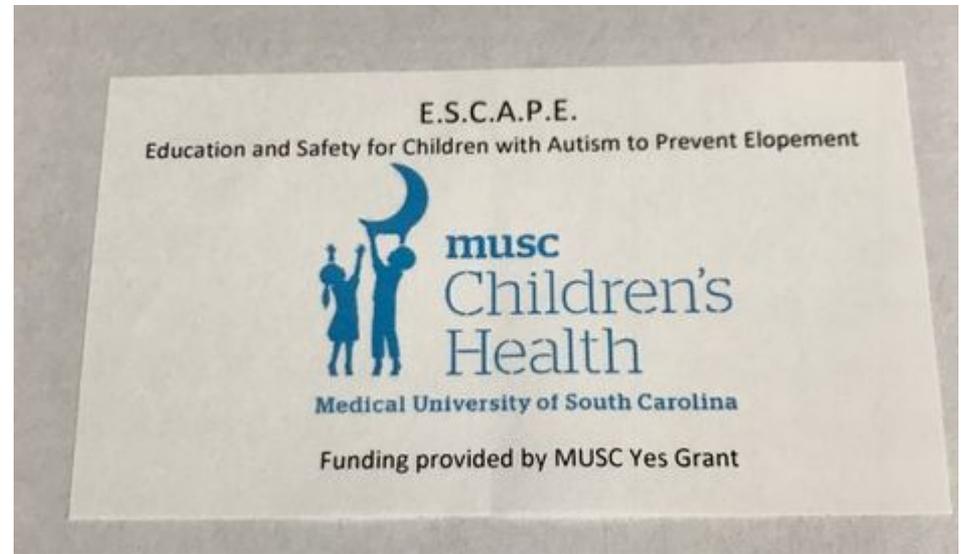
- Good/very good
 - Behavioral specialist, Individual behavioral aide, Swimming lessons, Window locks, Physical fencing, Security system, Window bars, Service animal
- Adequate
 - Dead bolt, Latches on door, Social stories, Baby gates, Additional locks/keys on doors, Headphones, Door alarms, ID bracelet/shoe tab, Door chimes/bells, Exercise, Changed sleep routine, Security cameras, Cell phone with GPS, Med alert bracelet, GPS tracker, Temporary tattoo, Project

Lifesaver

■ Burden

- None/very low
 - Dead bolt, Individual behavioral aide, Social stories, Headphones, Window locks, ID bracelet/shoe tab, Door chimes/bells, Physical fencing, Security cameras, Cell phone w/ GPS, Med alert bracelet, Temporary tattoo, Project Lifesaver
- Low/moderate
 - Latches on door, Behavioral specialist, Swimming lessons, Baby gates, Additional locks/keys on doors, Door alarms, Exercise, Changed sleep routine, Security system, Window bars, GPS tracker, Service animal

Education and Safety for Children with Autism to Prevent Elopement (ESCAPE©) toolkit ~ V1



Education and Safety for Children with Autism to Prevent Elopement (ESCAPE©) toolkit ~ V2



Study re: ESCAPE© Toolkit for Young Autistic Children with EB

- 65 caregivers enrolled in June 2021
- “Over the past 1 year period...”

92%

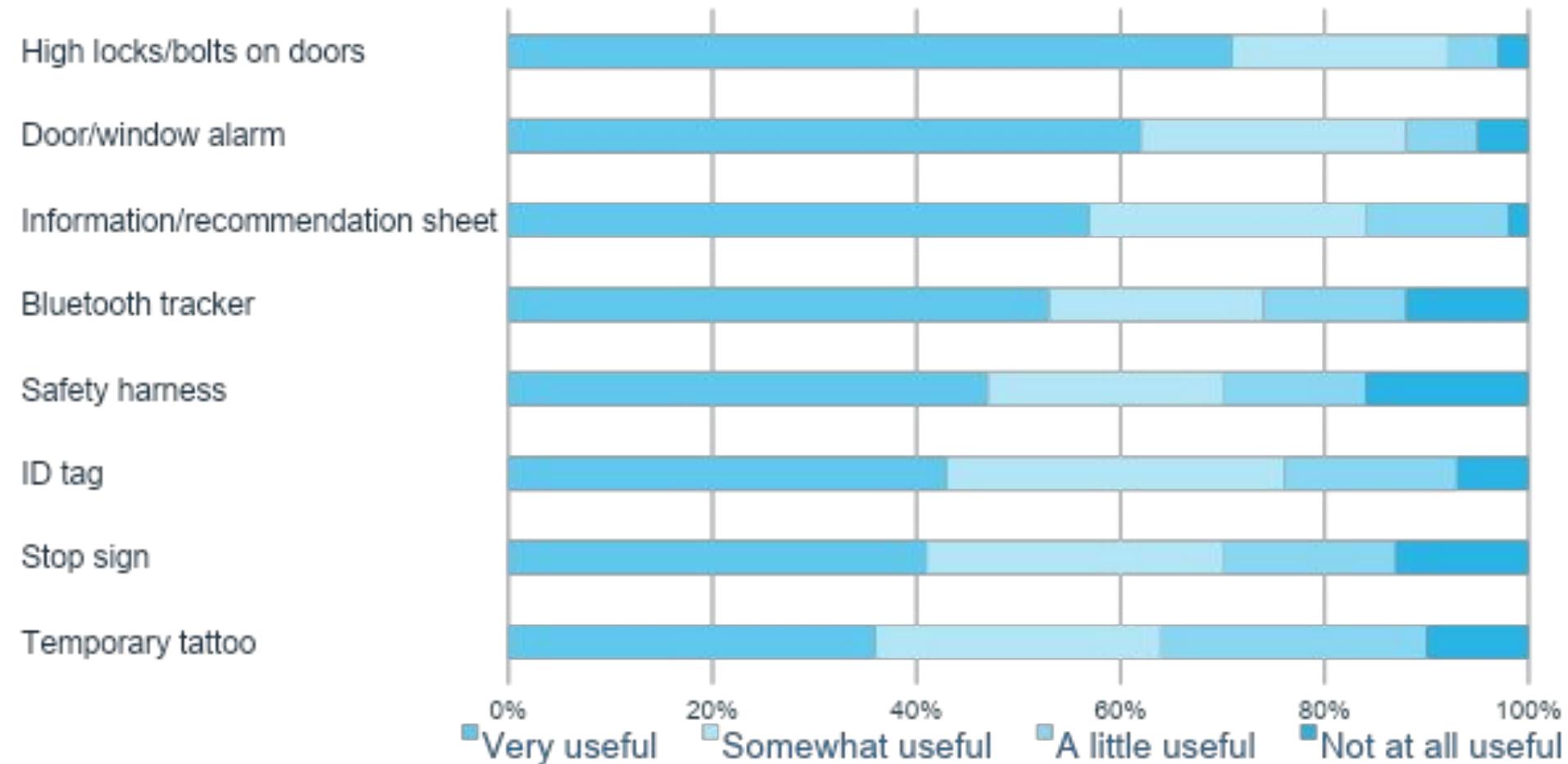
children who frequently
or very frequently
exhibited EB

86%

overall rate
of successful elopement

Study re: ESCAPE© Toolkit for Young Autistic Children with EB

Perceived Usefulness of ESCAPE © Kit Items

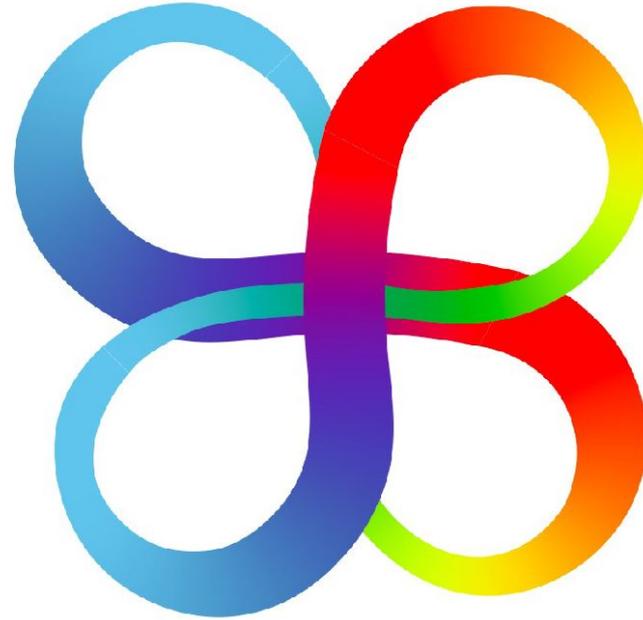


Study re: ESCAPE© Toolkit for Young Autistic Children with EB

EPM Use by Caregivers (n=58)

Preventative Measures	Overall Use	Current Use (3m)
Bluetooth tracker	42%	26%
Door/window alarm	83%	72%
High lock/bolt on door	88%	86%
ID tag	64%	36%
Information/recommendation sheet	81%	45%
Safety harness	66%	47%
Stop sign	86%	69%
Temporary tattoos	60%	22%

Education and Safety for Children with Autism to Prevent Elopement (ESCAPE©) toolkit ~ V3



ESCAPE

Education and Safety for Children
with Autism to Prevent Elopement

Study re: ESCAPE© Toolkit for Autistic Teens with EB

- 65 caregivers enrolled Oct 2023 – Feb 2024
- 49 completed 3-month follow up surveys
 - “Over the past 1 year period...”

51%

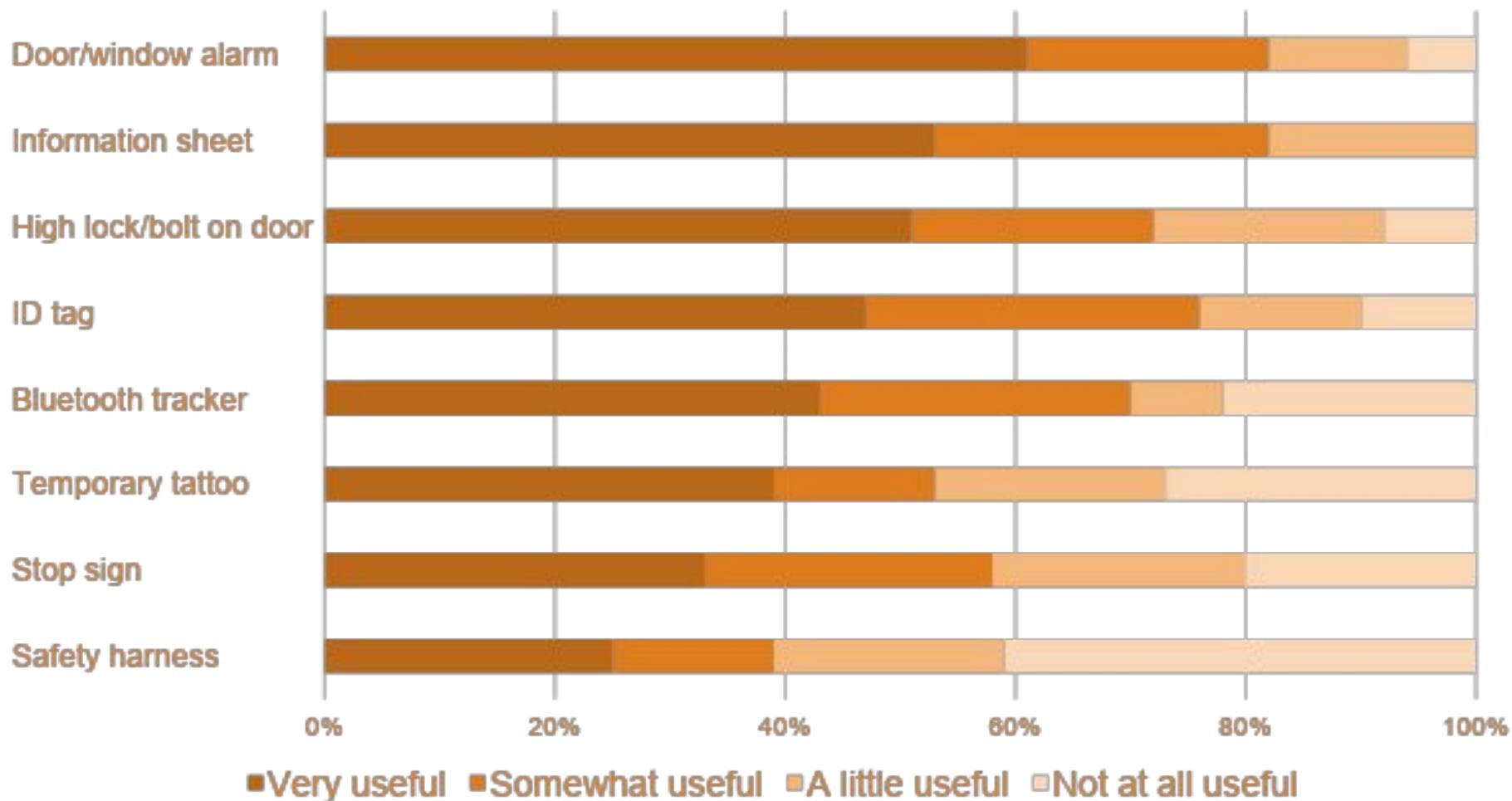
children who frequently
or very frequently
exhibited EB

82%

overall rate
of successful elopement

Study re: ESCAPE© Toolkit for Autistic Teens with EB

Perceived Usefulness of ESCAPE © Kit Items



Study re: ESCAPE© Toolkit for Autistic Teens with EB

EPM Use by Caregivers (n=49)

Preventative Measures	Overall Use	Current Use (3m)
Bluetooth tracker	41%	33%
Door/window alarm	84%	80%
High lock/bolt on door	76%	63%
ID tag	55%	39%
Information/recommendation sheet	82%	59%
Safety harness	33%	22%
Stop sign	63%	53%
Temporary tattoos	50%	27%
None	2%	4%

ESCAPE© Toolkit Pilot Studies

Where kits were mailed



-  Young kids only
-  Teens only
-  Both age groups

Neurodiversity Approach to EB

- Studies mostly focus on caregiver and healthcare provider perceptions
- *Neurodiversity-Oriented Approach to Address Autism Wandering as a "Problem Behavior" in Pediatrics*
 - Consider the link between chronic stress and [EB]
 - Use inclusive language that is non-stigmatizing and does not cause additional stress
 - Engage individuals as well as families as experts in their health during routine visits
 - Collaborate with systems relevant to autistic individuals and their families

Reference: Hotez E, Giwa Onaiwu M. A Neurodiversity-Oriented Approach to Address Autism Wandering as a "Problem Behavior" in Pediatrics. *Cureus*. 2023 Jun 23;15(6):e40862.

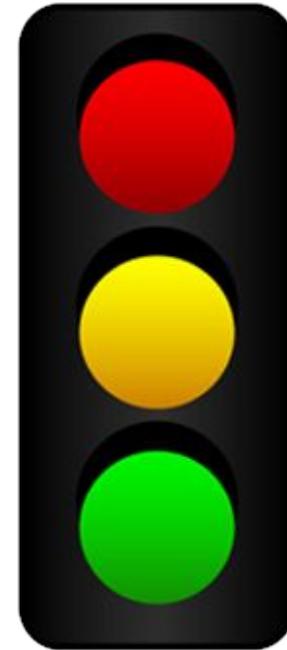
Supporting Safety

- **Locks at top of doors**
- Deadbolts
- Doorknob covers
- Window locks



Supporting Safety

- Signs/Visual markers
- Social stories



Supporting Safety

- Alarms throughout the home
 - Can be traditional
 - Can implement modified version



Supporting Safety

- Medical alert bracelet
 - Ideally has child's condition and a reliable phone number for a trusted person to be reached
 - Discourage including child's name due to "stranger danger"



Supporting Safety

- Safety harness
 - Now come in many styles
 - Backpack
 - Wrist-to-wrist



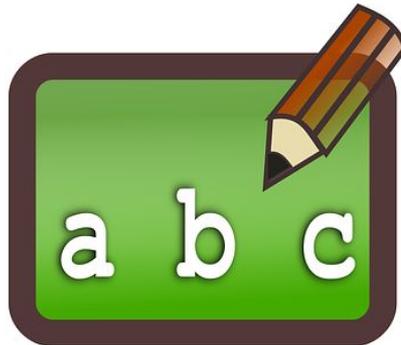
Supporting Safety

- Tracking device
 - Now come in many styles
 - GPS, Bluetooth, WiFi, and/or radiofrequency
 - Some have monthly fees while others don't
 - Some go on wrist/ankle while others attach to clothing
 - Many sheriff's departments have their own systems



Supporting Safety

- Applied behavior analysis (ABA) therapy
 - Numerous case studies
 - Will assess the child's unique A-B-C
 - A for antecedent, i.e. what occurs before elopement
 - B is for behavior, i.e. elopement
 - C is for consequence, i.e. what occurs after elopement



Supporting Safety

- Individualized Education Program (IEP)
 - May be applicable if it impedes the learning of the child or that of others
 - Shadow/aide



Supporting Safety

- Disabled person placard
 - Allows family to park as close as possible to an entrance to decrease opportunity for child to elope in an area with moving vehicles
 - Recommend for children who have eloped in areas with moving vehicles
 - DMV form needed to be completed by child's doctor
 - Encourage families to use it as needed since parking spaces tend to be bigger to accommodate those with mobility issues



Supporting Safety

- Awareness of EB by others
 - Neighbors
 - Can be helpful if child elopes from home
 - Live in your community, where many children spend their time
 - Law enforcement
 - Can provide resources to locate the missing child
 - Have recent photos of the child to give to them if needed



Supporting Safety

- **Bringing up EB**
 - **Provider perspective**
 - Some caregivers will bring it up... many won't
 - Normalize it by asking at every visit
 - Assure them EB isn't a reflection of their parenting skills
 - Just because "it only happened once" or "it used to be a problem" doesn't mean it can't happen again
 - ❖ Advocate to be proactive and not reactive
 - **Caregiver perspective**
 - You are the expert in your child and will always be his/her/their greatest advocate
 - **Individual perspective**
 - No one knows you better than you!

Supporting Safety

- Bringing up EB – cont'd
 - Provider perspective
 - Mention the variety of EPM that can be used
 - Many families already use some forms of EPM but might not know of other options
 - Individual/caregiver perspective
 - Share what you've already tried
 - Explain what did/did not work with the EPM(s) already implemented
 - Share unique factors about yourself/your child, your home situation, the school setting, etc. that might help the provider suggest other EMPs that might be more successful

Supporting Safety

- Awareness of available resources
 - Preventing Wandering: Resources for Parents and First Responders
 - autismspeaks.org/wandering-resources
 - Wandering Quick Tips
 - nationalautismassociation.org/wandering-quick-tips/
 - AAP's "ASD Family Handout—Wandering Off (*Elopement*)"; Autism – Caring for Children With Autism Spectrum Disorder: A Practical Resource Toolkit for Clinicians
 - <https://publications.aap.org/toolkits/book/338/chapter-abstract/5734321/ASD-Family-Handout-Wandering-Off-Elopement>
 - Big Red Safety Toolkit: a digital resource for caregivers
 - nationalautismassociation.org/docs/BigRedSafetyToolkit.pdf

Understanding Barriers with Addressing EB

- Additional considerations
 - Provider perspective
 - Use culturally and linguistically sensitive advice that can lead to shared decision-making
 - Individual/caregiver perspective
 - If an EPM didn't work before, it might not have been appropriate at that time but might be a better option in the future when circumstances change

Understanding Barriers with Addressing EB

- Additional considerations
 - Right to privacy
 - Starts at a young age
 - Evolves over time, so give opportunity to reassess safety considerations
 - Opportunity to take risks, make mistakes

Understanding Barriers with Addressing EB

- Additional considerations
 - Autism awareness ≠ EB awareness
 - Explaining how EB uniquely presents with this child
 - Law enforcement officer (LEO) interactions
 - ❖ 2022 study looked at types of incidents LEOs respond to involving autistic people
 - 57% reported no training related to autism

Reference: Gardner, L., Cederberg, C., Hangauer, J., & Campbell, J. M. (2022). Law enforcement officers' interactions with autistic individuals: Commonly reported incidents and use of force. *Research in Developmental Disabilities, 131*, 104371.

Understanding Barriers with Addressing EB

- Further research needed... but lack of funding
 - Autism-specific funding tends to have other priorities in which EB, EPM don't align
 - Inclusion of populations typically excluded from autism research

Reference: Rødgaard, E. M., Jensen, K., Miskowiak, K. W., & Mottron, L. (2022). Representativeness of autistic samples in studies recruiting through social media. *Autism Research*, 15(8), 1447-1456.

Acknowledgments

- MUSC DBP research team
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 - Supported in part by the Medical University of South Carolina Office of Innovation and in part by South Carolina Clinical & Translational Research Institute's NIH/NCATS Grant Number UL1TR001450
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Questions?



Thank You

