

Developed by
**Thomas Jefferson University's
Autism Center of Excellence**
in collaboration with
**Nemours Children's Health
Swank Autism Center**

Implementing a Sensory-Friendly Vaccine Clinic

Funded by
The Delaware Health Science Alliance



Implementing a Sensory-Friendly Vaccine Clinic

Molly Weaver*

Taylor Sivori, OTD, OTR/L

Rachel Dumont, MS, OTR/L

Roseann Schaaf, PhD, OTR/L, FAOTA

2023

Thomas Jefferson University

Acknowledgements:

Natalie Schiano*

Danielle Flynn, MS, BSN, CPN, NEA-BC

Emily Bernabe, PhD

Brian Freeman, PhD

Adapted from:

“Implementing an Autism-Friendly Vision Clinic” (2022)

Rachel Boyer, Rachel Dumont, Allison Barrett, Carissa Weaver, Roseann Schaaf

*In partial fulfillment of the requirements for a Doctorate in Occupational Therapy

Purpose

The purpose of this manual is to provide evidence-based strategies and resources to help healthcare providers implement a sensory-friendly vaccine clinic for autistic persons.

Autistic individuals demonstrate unique sensory differences that can impact their ability to participate in healthcare experiences, including vaccine administrations. Sensory supports can increase an autistic person's ability to successfully receive a vaccine. The following resources are provided to guide clinicians through identifying a child's unique sensory needs and preferences, selecting appropriate sensory strategies accordingly, and implementing those strategies throughout a vaccine clinic.

Table of Contents

- I. [Why is a Sensory-Friendly Vaccine Clinic Needed?](#)
- II. [Role of Occupational Therapy Practitioners](#)
- III. [Procedures for Implementation of a Sensory-Friendly Vaccine Clinic](#)
- IV. [Vaccine Clinic Day](#)
- V. [Appendix](#)
 - a. [Participant recruitment flyers](#)
 - b. [Social story](#)
 - c. [List of sensory items](#)
 - d. [Pre-clinic survey](#)
 - e. [To-Do list](#)
 - f. [Post-clinic survey](#)
- VI. [References](#)

Why is a Sensory-Friendly Vaccine Clinic Needed?

Sensory Features of Autism

Many individuals with autism experience sensory features. Examples of sensory features include hyper-reactivity, hypo-reactivity, and difficulties with sensory integration. Sensory features of ASD can strongly influence an autistic individual's behavior and participation in healthcare and other daily activities (Schaaf & Lane, 2015).

Hyper-reactivity



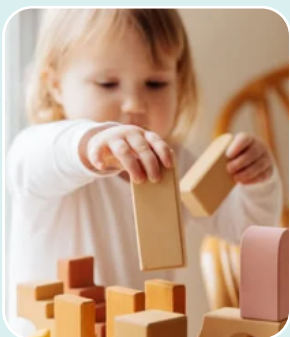
- An individual who is hyper-reactive exhibits intense or exaggerated reactions to sensory stimuli that others may not notice (Schaaf & Lane, 2015; Schaaf & Mailloux, 2015). When an individual who is hyper-reactive experiences a sensation, they may show signs of stress or have a negative reaction (Schaaf & Lane, 2015). For example, someone who is hyper-reactive to auditory input may cover their ears in response to certain sounds. Someone who is hyper-reactive to tactile input may express discomfort when wearing certain fabrics or may become agitated when touched by someone or something.

Hypo-reactivity



- An individual who is hypo-reactive does not react or exhibits reduced reactions to sensory stimuli (Schaaf & Lane, 2015; Schaaf & Mailloux, 2015). Individuals who are hypo-reactive often display sensory-seeking behaviors because they require more sensory input than that provided by their environment for self-regulation (Schaaf & Mailloux, 2015). For example, someone who is hypo-reactive may spin, jump, rock back and forth, chew on objects, or feel the objects/surfaces around them as a way of increasing their sensory input. Increased sensory stimulation provides hypo-reactive individuals with comfort and helps with self-regulation.

Difficulties with Sensory Integration



- Sensory integration refers to the processing, management, and organization of sensory information from the body and environment (Schaaf & Lane, 2015; Schaaf & Mailloux, 2015). Individuals with ASD often have difficulty managing multiple senses simultaneously (Schaaf & Lane, 2015). For example, an individual may have difficulty following verbal instructions while looking at something because they have trouble integrating the information coming from their visual system and their auditory system simultaneously.

For more information on the sensory features of autism and the sensory systems, complete the training modules developed for this projection. See *Procedures for Implementation of a Sensory-Friendly Vaccine Clinic* on page 6 for more information and to access the training modules.

Benefits of Sensory-Friendly Clinics

Autism and Healthcare Experiences:

Healthcare visits can be both physically and psychologically stressful for autistic children for a variety of reasons (Sadatsafavi et al., 2015). Autistic children are more inflexible than neurotypical children and disturbances to their routines can cause a sudden increase in anxiety (Amorim et al., 2020). A healthcare visit breaks a child's daily routine which can cause distress and lead to negative behaviors (Bultas et al., 2016; Wood et al., 2019). Bright lights, loud and unfamiliar sounds, long wait times and crowded waiting rooms, encounters with strangers, unfamiliar smells, use of unfamiliar objects or tools, fast-paced encounters, and uncomfortable tactile sensations can lead to overstimulation during the healthcare visit (Bultas et al., 2016; Wood et al., 2019; Sadatsafavi et al., 2015).

How to Make Healthcare Experiences More Sensory-Friendly:

Research assessing the effects of sensory adaptations within healthcare environments have found that making healthcare encounters more sensory-friendly improves the experiences of autistic children and make visits more productive (Bultas et al., 2016; Sadatsafavi et al., 2022). Clinics can be made more sensory-friendly for autistic patients by modifying the clinic environment, making alterations to the care delivery processes, changing the behavior of healthcare providers, and offering sensory supports and preparatory materials (Bultas et al., 2016; Sadatsafavi et al., 2022).



Clinic Environment

- Avoid excessive light, noise, and clutter
- Remove clutter from waiting areas and treatment rooms
- Prevent crowded waiting rooms and minimize wait times through appropriate scheduling



Behavior of Healthcare Providers

- Adapt communication based on the patient's preferences/needs (ex. speak softly)
- Minimize the number of staff members interacting with patients



Materials and Supports

- Offer sensory toys and items
- Provide social stories and/or educational handouts.

Methods Used to Make Clinics Sensory-Friendly

Role of Occupational Therapy Practitioners

Occupational therapy (OT) practitioners improve a client's ability to complete daily tasks, also known as "occupations," using their unique understanding of how an individual, tasks, and environment influence participation (AOTA, 2020). OT practitioners are also recognized for their knowledge of the sensory systems and their ability to address an individual's sensory needs to promote participation in activities (AOTA, 2020). Thus, OT practitioners can support a sensory-friendly vaccine clinic in many ways as described below:

- Identify the sensory needs and sensory preferences of each patient through the analysis of survey responses and/or conversations with patients and caregivers and recommend sensory tools and strategies
- Administer pre-clinic surveys to prepare personalized sensory adaptations for each patient
- Administer post-clinic surveys to assess patient satisfaction with the clinic and question participants on how the clinic protocol can be improved
- Assess caregiver satisfaction and value of sensory adaptations after participation in the clinic
- Serve as a liaison between families and clinic staff to summarize the sensory survey responses and reiterate any noteworthy comments from conversations with families
- Recommend sensory modifications to the clinic environment
- Develop resources for families, such as educational handouts and social stories to help caregivers prepare their children for the vaccine clinic prior to arrival
- Support caregivers and patients within the vaccination room by providing sensory adaptations and supports for the duration of the visit



If OT practitioners are not available at your clinic, consider identifying a local university's OT program or reaching out to OT students. OT students may be available to volunteer at your clinic or your clinic may be a potential fieldwork site for clinical education.

Procedures for Implementation of a Sensory-Friendly Vaccine Clinic

1. Complete asynchronous training modules on the sensory features of autism

In preparation for the vaccine clinic, the medical assistants/nurses who will be administering the vaccines will complete a series of training modules designed to help professionals understand the sensory systems and the sensory features of autism. The training consists of 5 modules and offers an overview of autism spectrum disorder, describes sensory response patterns, and offers a look into how the sensory systems can impact healthcare visits. The training takes approximately 40 minutes to complete.

Click [HERE](#) to access the training modules.

2. Schedule the vaccine clinic

It is best to schedule the clinic 4 weeks in advance to allow time for pre-clinic activities. The vaccine being administered and the frequency of scheduled clinics may vary. For example, weekly clinics may be appropriate during flu season. Schedule your clinic on a date and time when the clinic is less busy to minimize wait times and to prevent families from feeling rushed when they are called for their vaccination.

3. Recruit patients

Identify autistic patients in your clinic or community who would benefit from a sensory-friendly clinic. Patient recruitment sites can include online forums, pediatric clinics/pediatrician's offices, schools, and local hospitals. A recruitment period of 1 month prior to the clinic date is recommended. Methods of recruitment can include (but are not limited to) flyers, emails, and phone calls. See Appendix B to view a recruitment flyer used for a previously conducted vaccine clinic.

4. Schedule patients for the clinic

Scheduling vaccination times in advance is important for a sensory-friendly clinic as it minimized wait times and helps to maintain a calm clinic environment. Inform patients that they may come early if they expect that they will need time transitioning to the clinic environment.

5. Complete pre-clinic survey

The pre-clinic survey is administered to the caregivers of patients prior to the vaccine clinic via internet or phone interview by clinic staff or by OT practitioners. If the patient is unable to complete the survey in advance, it can be completed on the clinic date upon their arrival and check-in.

6. Prepare the clinic environment

It is imperative that the clinic environment and all materials are prepared prior to the start of the clinic. The waiting and exam rooms should be clean and free of clutter and unnecessary equipment. The sensory tools and materials should be organized for easy access and cleaning materials should be readily available so that the tools can be disinfected after each use. The surveys and other documents should be ready prior to patient arrival (ensure QR codes are working, have printed copies available). Finally, meet with the clinic team to discuss the clinic protocol and the roles of all personnel involved (occupational therapists, medical assistants/nurses, desk staff, etc.)

Vaccine Clinic Day

3-4 hours is an appropriate amount of time for a vaccine clinic although the time will vary based on the number of participants and each site's individual needs. Allot approximately 30 minutes before and after the clinic for preparation and clean up.

During Check-in

- When the patient arrives at their scheduled time, check the patient in and write their ticket number on the top of their To-Do List (see Appendix E).
- Point out the ticket number on the form to the patient and explain that they will enter their ticket number on the Pre-Clinic and Post-Clinic Surveys.
- If the patient did not complete the Pre-Clinic Survey in advance, instruct them to complete it by scanning the QR code or provide them with a paper copy.
- Direct the patient to the waiting area and instruct them to wait for their name to be called.
- While the patient waits, the OTs at the clinic will use the information from the Pre-Clinic Survey to develop sensory adaptations for the patient.
- Prior to calling the patient's name, the OTs will meet with the medical assistants/nurses to summarize the patient's sensory needs. They will provide them with methods of keeping the patient calm and comfortable during the vaccination.

During an Appointment

- The patient's name will be called when their vaccine and sensory adaptations are ready to minimize wait-time in the designated vaccination area.
- The OT who reviewed the patient's Pre-Clinic Survey and developed the patient's sensory adaptations will accompany the medical assistant/nurse into the vaccination area.
- During the vaccination (and waiting period if required for the vaccine), the OT will provide the patient with sensory supports.

During Check-out

- Direct the patient to the check-out area after receiving their vaccine.
- Ask the patient to complete the Post-Clinic Survey when they enter the waiting area. Explain that the Post-Clinic Survey is designed to assess their satisfaction with the sensory-friendly clinic and that they are encouraged to provide feedback and recommendations so that the clinic can be improved for the future.
- Clean and disinfect all sensory items between patients.

Appendix

The following resources may be downloaded and customized to serve the specific needs of your clinic.

These resources can also be utilized during routine clinical practice for sites that are not currently able to implement a sensory-friendly vaccine clinic.

Appendix A: Patient Recruitment Flyer*

*Note: Please use your site's marketing approved flyers to develop advertising materials for your clinic.



Is your autistic child due for a vaccine?

Does your child benefit from sensory supports?

**Participate in our research study evaluating a
sensory-friendly vaccine clinic!**

[Insert Date]: [Insert Time]

The purpose of this study is to design and implement sensory supports for autistic children and adolescents. Participation in this research study involves completion of two brief surveys and receiving sensory supports that are customized to your child's needs during the vaccine clinic visit. The vaccine will be provided at the Swank Autism Center as a part of your child's medical care.

To schedule an appointment, please call 302-651-4500 and select option #2



Call To Action
Well Beyond Medicine | [Nemours.org](https://www.Nemours.org)

Appendix B: Social Story



Today, I am going to the Swank Autism Center for my vaccine.
Getting my vaccine will help me stay healthy.

1



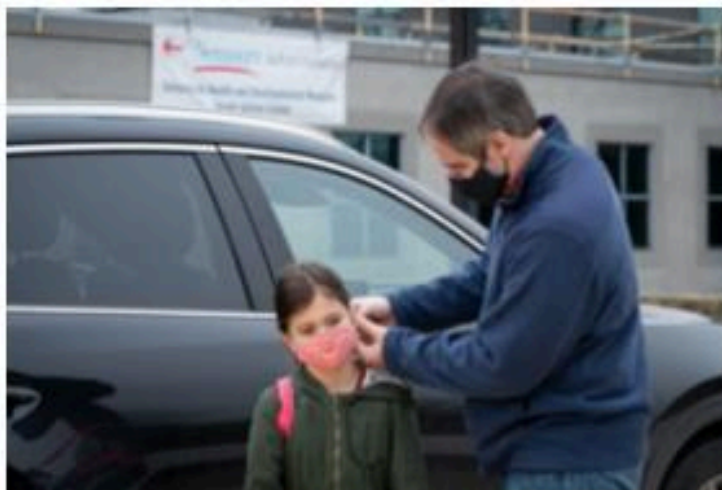
First, we will park on the second floor of the parking deck.

2



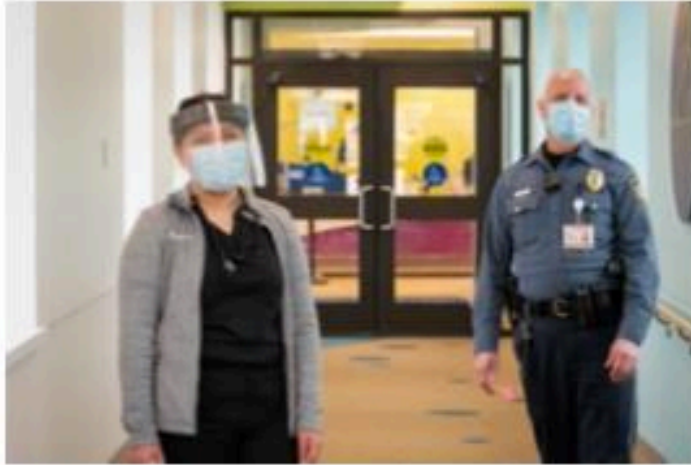
At first, I may feel a little nervous, but I know I can be brave! I'll bring my favorite toy with me.

3



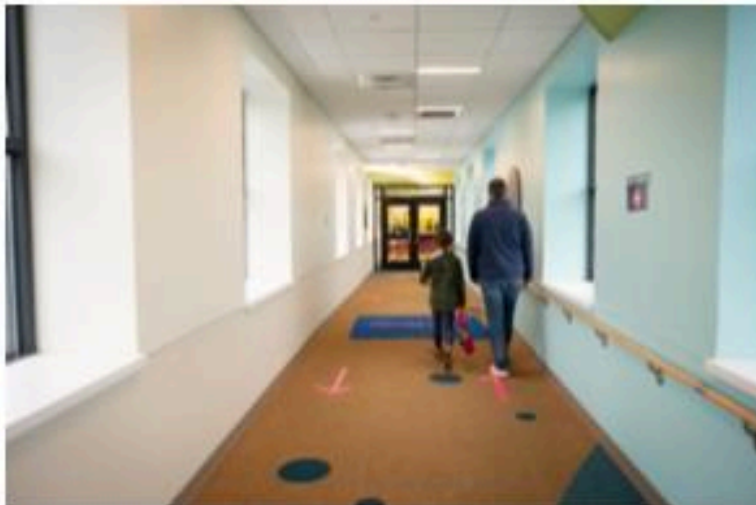
Before we go in, I'll put on my face mask. So will my parent or other caregiver. We wear masks to protect ourselves and others from germs.

4



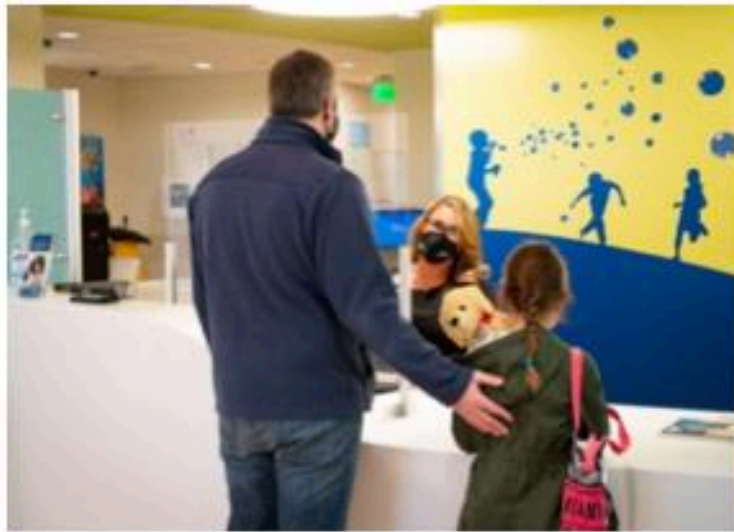
Inside the building, many people will wear face masks. Some people will also wear face shields. We try to stay about 6 feet away from each other, but the doctors and nurses may get closer to take care of me.

5



Then, we'll walk down a long hall to the front desk. We follow the arrows on the floor and stay to one side.

6



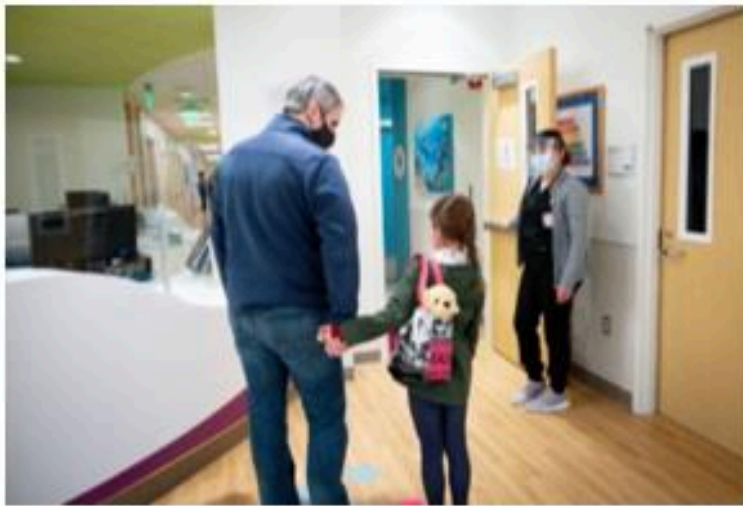
At the front desk, I will try to stand very still while we check in. There are nice people at the front desk to check us in.

7



I will sit in the waiting area while my caregiver answers some questions about me! I can play with toys while I wait if I want to. I can even bring a toy from home.

8



Time to go! We will follow the medical assistant, or MA, through the door and to my room.

9



We will walk down the hall.

10

15



We will enter an exam room and wait for the MA to come. I will sit down in a chair. While we wait, we can play a game or I can play with my favorite toy.

11



Now the MA comes in to see me. MA's here are nice and like to play and talk! We can play at the table. The MA may ask me or my caregiver some questions.

12



Now it's time for my shot. A shot is usually given in the arm. I can pick which arm to get it in. First, the MA will clean my skin with a wipe. It will feel cold and wet for a few seconds but will dry quickly.

13



When I get my shot, I need to keep my body calm and still. I can take deep breaths to relax. I will feel little pinch in my arm for a few seconds. Staying still and keeping my arm relaxed will make it hurt less.

14



If I am feeling nervous, I can try singing my favorite song, closing my eyes, or wiggling my toes.

15



Getting a shot only takes a few seconds! Now I get to pick out a fun bandage for my arm!

16

18



We're all done! Now it's time to check out with the nice people at the front desk and in the waiting room. I will keep my body still and use my inside voice.




17




My visit is over. We will say goodbye. I did a great job today, and my family is so proud of me!

18

19

		<p>FtZT1zcF9hdGYmYWN0aW9uPWNsaWNrUmVkaXJlY3QmZG9Ob3Rmb2dDbGljaz10cnVl</p> <p>*both of the above options are made from materials that can be disinfected with wipes</p>
<p>Liquid Motion Bubbblers</p> 	<ul style="list-style-type: none"> • Vision 	<p>1. Pack of 4: https://www.amazon.com/Super-Outlet-Children-Activity-Assorted/dp/B00ZY6JHU4/ref=sr_1_5?crd=1J24BL47G9VDO&keywords=sensory+visual+toys&qid=1668627242&sprifix=sensory+visua%2Caps%2C55&sr=8-5</p> <p>2. Pack of 3: https://www.amazon.com/Anxus-Colorful-Hourglass-Children-Activity/dp/B0924GD1SS/ref=sr_1_39?crd=3560B8ZD4BCJZ&keywords=liquid+motion+bubbler&qid=1679602305&sprifix=liquid+motion%2Caps%2C79&sr=8-39</p>
<p>Noise Cancelling Headphones</p> 	<ul style="list-style-type: none"> • Sound 	<p>1. Sold individually https://www.amazon.com/Noise-Reduction-Earmuffs-Cancelling-Low-Pressure/dp/B0BL287HGT/ref=sr_1_12?crd=1KWHZJZ7W5DH3&keywords=noise+cancelling+headphones+for+autism&qid=1668627711&sprifix=noise+cancelling+headphone%2Caps%2C67&sr=8-12</p> <p>2. Pack of 3: https://www.amazon.com/Protection-Earmuffs-Cancelling-Headphones-Adjustable/dp/B0B2C1K33M/ref=sr_1_8?crd=2ZAZ0JJLM9EIV&keywords=noise+cancelling+headphones+for+autism&qid=1679604117&sprifix=noise+cancelling+headphones+for+autism%2Caps%2C200&sr=8-8</p>
<p>Slime</p> 	<ul style="list-style-type: none"> • Touch • Smell (if slime is scented) 	<p>1. Pack of 48: https://www.amazon.com/SlimyGloop-Variety-Reusable-Containers-Stretches/dp/B0BBPJQ761/ref=sr_1_2?keywords=sensory+mell+kit&qid=1668628300&sr=8-2</p> <p>2. Pack of 45: https://www.amazon.com/Butter-Scented-Stress-Relief-Non-Sticky/dp/B0B6CPKBZH/ref=sr_1_3?crd=1Y41ZLZTF4CON&keywords=scented+slime+kids&qid=1679604463&sprifix=scented+slime+kids%2Caps%2C86&sr=8-3</p> <p>*Note: If slime is used as one of the sensory materials, it should not be reused as it cannot be sanitized. Children can keep it and take it home.</p>

		<p>2. Pack of 2: https://www.amazon.com/ArtCreativity-Flashing-Thrilling-Spinning-Batteries/dp/B09FKK2P9M/ref=sr_1_47?crid=1UKTL6OE7OKAM&keywords=light+up+spinner&qid=1679948223&sprefix=light+up+spinner%2Caps%2C132&sr=8-47</p>
---	--	---

Storage and Transportation



1. Sold individually
https://www.amazon.com/dbest-products-Collapsible-Teachers-Capacity/dp/B074T8QSXC/ref=sr_1_1_sspa?crid=1SXI3CO3LMGS6&keywords=rolling%2Bstorage%2Bcrate&qid=1669062392&sprefix=rolling%2Bstorage%2Bcrate%2Caps%2C106&sr=8-1-spons&sp_csd=d2lkZ2V0TmFtZT1zcF9hdGY&th=1

Appendix D: Pre-Clinic Survey

Ticket Number Please enter your ticket number you received at check in.

Q1 How old is your child? (years, months)

Q2 Which of the following best describes your child?

- American Indian or Alaskan Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White
- Some other race, ethnicity, or origin (please describe) _____
- Prefer to self-describe (please describe) _____
- Prefer not to say

Q3 Is your child of Hispanic, Latino/a/x, or of Spanish origin? (one or more categories may be selected)

- No, not of Hispanic, Latino/a/x, or Spanish origin
- Yes, Mexican, Mexican American, Chicano/a/x
- Yes, Puerto Rican
- Yes, Cuban
- Yes, Another Hispanic, Latino/a/x, or Spanish origin
- Some other race, ethnicity, or origin
- Prefer to self-describe (please describe)
- Prefer not to say

Q4 What are your child/teen's areas of strength? (please describe)

Q5 What are your child/teen's areas of interest? (please describe)

Q6 Has your child/teen ever been able to sit through a vaccine health visit?

- Yes
- No
- N/A, never had a vaccine before

Q7 How does your child/teen best communicate with others?

- Spoken language
- Written language
- Sign language
- Communication device
- All of the above
- Other (please describe) _____

Q8 How does your child/teen show if he/she is upset?

- Making sounds (please describe) _____
- Facial expression (smiling, frowning, etc.) (please describe)

- Physical movements (squeezing hands, rocking, flapping hands, etc.) (please describe)

- Hitting or hurting self
- Hitting or hurting others
- Through the communication method(s) from Q7
- Other (please describe) _____

There are a number of sensory experiences someone may encounter in daily life, including things you might see, smell, or touch. Children and teens may have different experiences to those sensory systems. Below we will ask about your child/teen's sensory needs or behavioral responses to different sensory experiences. Your responses will help us to support your child/teen during their vaccine clinic visit.

Q9 Does your child/teen have any sensory needs that we should be aware of?

- Yes
- No

Q10 Difficulties with **VISUAL** stimuli? (may include: avoiding bright lights/sunlight, disliking flashing colors)

- Yes (please describe which visual stimuli)

- No

Q11 What are the best ways to calm or support your child/teen during these visual experiences?

Q12 Difficulties with **SMELL** stimuli? (may include: being aware of scents/smells that others aren't aware of, experience discomfort or nausea from certain smells)

- Yes (please describe which smell stimuli)

- No

Q13 What are the best ways to calm or support your child/teen during these smell experiences?

Q14 Difficulties with **AUDITORY/SOUND** stimuli? (may include: crying/fleeing at loud or unexpected sounds, covering ears or turning head away from sounds)

Yes (please describe which auditory/sound stimuli)

No

Q15 What are the best ways to calm or support your child/teen during these sound experiences?

Q16 Difficulties with **TOUCH** stimuli? (may include: avoiding touching certain fabrics or textures, intense reaction to light touch, avoiding certain clothing, sensitive to touch)

Yes (please describe which touch stimuli)

No

Q17 What are the best ways to calm or support your child/teen during these touch experiences?

Q18 Difficulties with **MOVEMENT or BALANCE** stimuli? (may include: difficulty changing directions while moving, gets motion sickness easily, difficulty staying upright when sitting or standing)

Yes (please describe which movement or balance stimuli)

No

Q19 What are the best ways to calm or support your child during these movement or balance experiences?

Q20 Difficulties with **TASTE** stimuli? (may include: avoiding certain foods or tastes, refusing to try new foods)

Yes (please describe which taste stimuli)

No

Q21 What are the best ways to calm or support your child during these taste experiences?

Q22 Are there any strategies / items that motivate your child/teen to complete other routine medical visits?

- Yes (please describe) _____
- No

Q23 Have you brought any items to support your child/teen with this visit?

- Yes (please describe) _____
- No

Q24 Before you proceed to the vaccine administration, is there anything else you would like us to know about your child/teen before the visit?

- Yes (please describe) _____
- No

Clinic To-Do List

Ticket
Number

Collect a sticker after you complete each step!

● Check in and receive ticket number

● Scan QR code on the right to complete the sensory-needs survey (enter ticket number)



● Wait for name to be called

● Receive vaccine

● Check out and complete the satisfaction survey. Scan QR code on the right (enter ticket number)



Thank you and have a great day!

Appendix F: Post-Clinic Survey

Ticket Number Please enter your ticket number you received at check in.

Q1 Did your child participate in the sensory-friendly vaccine clinic?

- Yes
- No

Q2 How did you hear about our vaccine clinic?

- Nemours/Swank Autism Center personnel
- Thomas Jefferson University personnel
- Flyer
- Another healthcare professional
- Friend
- Other (please describe) _____

Q4 How satisfied are you with the services you and your child/teen received at today's vaccine clinic?

- Very satisfied
- Mostly satisfied
- Indifferent or mildly dissatisfied
- Quite dissatisfied

Q5 To what extent has our program met you and/or your child/teen's needs?

- Almost all of my needs have been met
- Most of my needs have been met
- Only a few of my needs have been met
- None of my needs have been met

Q6 When your child/teen needs a vaccination again, would you come back to our program?

- Yes, definitely
 - Yes, I think so
 - No, I don't think so
 - No, definitely not
-

Q7 How satisfied did your child/teen seem with his/her/their waiting room experience?

- Very satisfied
 - Mostly satisfied
 - Indifferent or mildly dissatisfied
 - Quite dissatisfied
-

Q8 Is there anything that would improve the waiting room experience for your child/teen?

- Yes (please describe) _____
 - No
-

Q9 Please list any sensory items or experiences that would have improved your child/teen's waiting room experience. (ex. auditory, visual, touch, proprioceptive, vestibular, smell, taste)

Q10 Is there anything that would improve the overall experience at the vaccine clinic?

- Yes (please describe) _____
 - No
-

Q11 What was challenging about the vaccination visit for you and your child/teen?

Q12 Do you have any recommendations on how best to reach other families with children/teens with autism to support them with their vaccinations?

- Yes (please describe) _____
 - No
-

Q13 Do you have any additional comments you would like to share with the team regarding your visit to the clinic today?

- Yes (please describe) _____
- No

References

- American Occupational Therapy Association. (2020). Occupational therapy practice framework: Domain and process (4th ed.). *American Journal of Occupational Therapy*, 74(Suppl. 2), Article 7412410010. <https://doi.org/10.5014/ajot.2020.74S2001>
- Amorim, R., Catarino, S., Miragaia, P., Ferreras, C., Viana, V., & Guardiano, M. (2020). The impact of COVID-19 on children with autism spectrum disorder. *Revista de Neurologia*, 71(8), 285–291. <https://doi.org/10.33588/rn.7108.2020381>
- Boshoff, K., Bowen-Salter, H., Gibbs, D., Phillips, R. L., Porter, L., & Wiles, L. (2021). A meta-synthesis of how parents of children with autism describe their experience of accessing and using routine healthcare services for their children. *Health & Social Care in the Community*, 29, 1668–1682. <https://doi.org/10.1111/hsc.13369>
- Bultas, M. W., McMillin, S. E., & Zand, D. H. (2016). Reducing barriers to care in the office-based health care setting for children with autism. *Journal of Pediatric Health Care : Official Publication of National Association of Pediatric Nurse Associates & Practitioners*, 30, 5–14. <https://doi.org/10.1016/j.pedhc.2015.08.007>
- Centers for Disease Control and Prevention. (2022, March 28). *Signs and symptoms of autism spectrum disorder*. Centers for Disease Control and Prevention. Retrieved February 22, 2023, from <https://www.cdc.gov/ncbddd/autism/signs.html>
- Centers for Disease Control and Prevention. (2022, March 2). *Data and statistics on autism spectrum disorder*. Centers for Disease Control and Prevention. Retrieved February 22, 2023, from <https://www.cdc.gov/ncbddd/autism/data.html>
- CSQ-3 – CSQ Scales. (n.d.). Retrieved March 23, 2023, from <https://csqscales.com/product/csq-3/>
- Mason, D., Ingham, B., Urbanowicz, A., Michael, C., Birtles, H., Woodbury-Smith, M., Brown, T., James, I., Scarlett, C., Nicolaidis, C., & Parr, J. R. (2019). A systematic review of what barriers and facilitators prevent and enable physical healthcare services access for autistic adults. *Journal of Autism and Developmental Disorders*, 49(8), 3387–3400. <https://doi.org/10.1007/s10803-019-04049-2>
- Mills, E., Jadad, A. R., Ross, C., & Wilson, K. (2005). Systematic review of qualitative studies exploring parental beliefs and attitudes toward childhood vaccination identifies common barriers to vaccination. *Journal of Clinical Epidemiology*, 58(11), 1081–1088. <https://doi.org/10.1016/j.jclinepi.2005.09.002>
- Schaaf, R. C., & Lane, A. E. (2015). Toward a best-practice protocol for assessment of sensory features in ASD. *Journal of Autism and Developmental Disorders*, 45, 1380–1395. <https://doi.org/10.1007/s10803-014-2299-z>
- Schaaf, R. C. & Mailloux, Z. (2015). *Clinician's guide for implementing ayres sensory integration®: Promoting participation for children with autism*. AOTA Press, The American Occupational Therapy Association, Inc.
- Solomon, O., Angell, A. M., Yin, L., & Lawlor, M. C. (2015). “You Can Turn off the Light If You’d Like”: Pediatric health care visits for children with autism spectrum disorder as an interactional achievement. *Medical Anthropology Quarterly*, 29, 531–555. <https://doi.org/10.1111/maq.12237>
- Taghizadeh, N., Heard, G., Davidson, A., Williams, K., & Story, D. (2019). The experiences of children with autism spectrum disorder, their caregivers and health care providers during day procedure: A mixed methods study. *Paediatric Anaesthesia*, 29(9), 927–937. <https://doi.org/10.1111/pan.13689>
- Wood, E. B., Halverson, A., Harrison, G., & Rosenkranz, A. (2019). Creating a sensory-friendly pediatric

emergency department. *Journal of Emergency Nursing*, 45, 415–424.
<https://doi.org/10.1016/j.jen.2018.12.002>