



**EVALUATION OF A STRANGER SAFETY  
TRAINING PROGRAM FOR ADULTS WITH  
WILLIAMS SYNDROME**

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# WHAT IS WILLIAMS SYNDROME?

- Identified in 1961 by cardiologists
- Deletion of genes on Chromosome 7
  - 1 in 7,500 live births
  - One of the 1,200 known genetic causes of intellectual disability
    - borderline to moderate levels of ID



# MEDICAL ISSUES IN WS

- Deletion on one of the chromosome 7's (7q11.23) that includes approximately 20 genes, including gene for elastin
- Insufficient elastin likely responsible for cardiac disease (aortic stenosis) –the major artery going to the heart is very stiff-can become constricted over time.
- High blood pressure very common in this group-also high resting heart rate



# PHENOTYPE OF WS

- Attraction to faces, facial memory, reading emotion from faces,
  - Remember people they have met/have great memory for highly emotionally charged events
  - Easily affected by other emotions both happy and sad
- Heightened empathy, interest in others, sociability, “cocktail party speech”
- Need to help keep emotions in check



# WILLIAMS SYNDROME AND SOCIABILITY

- overly friendly, socially disinhibited, too trusting of other people
- strong desire to make friends & to please
- indiscriminate towards strangers
  - Parents report: pervasive & difficult to inhibit desire to approach and engage strangers



# WILLIAMS SYNDROME AND SOCIABILITY

- Parent- report questionnaire studies
  - More social than other disabilities and people without disabilities
    - excessive interest in others
    - seek social interactions
    - no inhibition toward approaching others
- Experimental studies
  - Rating photos of unfamiliar faces
    - WS rates happy faces as more approachable than no disability



# WILLIAMS SYNDROME AND SOCIABILITY

- Past research suggests:
  - Hard-wired to be socially-oriented
  - More likely to judge strangers as trustworthy and approachable
- Increase risk of social victimization
- Caregivers concerned
  - approach and engage strangers in conversation



# WHAT HAS BEEN DONE?

- Direct examination of social behaviors in real world settings?
  - No
- Interventions to teach appropriate responses to strangers?
  - No

## AIMS

1. Directly examine how individuals with WS currently respond to lures from strangers
2. Determine if individuals with WS can increase use of appropriate responses to lures from strangers

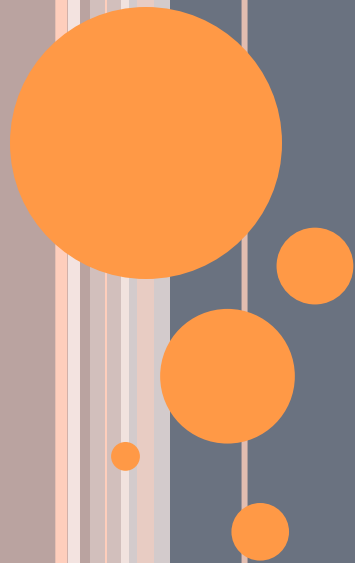




# RESEARCH QUESTIONS

1. Prior to training, do adults with WS display the stranger safety skills of saying “no” and walking away when approached by a stranger?
2. Can adults with WS learn the stranger safety skills during three days of group behavior skills training?
3. Will adults with WS use the stranger safety skills in response to a stranger lure after training?





# METHOD

# PARTICIPANTS- INDIVIDUALS WITH WS

	TOTAL	Group 1	Group 2	t
N	21	10	11	
% Male	81%	60%	100%	
Mean Age	25.71 (9.67)	27.30 (10.79)	24.27 (8.79)	0.71
KBIT Verbal SS	78.62 (13.47)	77.10 (11.41)	80.00 (15.54)	-0.48
KBIT Non Verbal SS	69.16 (16.22)	64.30 (14.86)	73.64 (16.78)	-1.34
Mean FSIQ	70.90 (13.53)	67.40 (11.11)	74.09 (15.55)	-1.14



# PARTICIPANTS- STRANGERS

- $N = 14$
- Age: mean = 31.43 (6.80), range 23-47 years
- Gender: 50% male
- Race; 79% Caucasian
- Unknown to participants
- From a graduate Special Education program, and word of mouth



# DESIGN

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Group 1	Time 1					
	BST	BST	BST			
			Time 2			Time 3
Group 2	Time 1		Time 2			
			BST	BST	BST	
						Time 3



# SETTING

## ○ **Training**

- common area of the university dormitories
- Role plays in dorms and common grounds around dorms

## ○ **In situ assessments**

- various community settings
  - areas outside the dorms
  - music rehearsal building
  - camp cafeteria
  - local restaurant
  - hair salon



# PROCEDURE- IN SITU ASSESSMENT

- up to 3 times: Time 1, Time 2, and Time 3
- Confederate stranger provided with specific lure and “termination” phrase
- Participant left alone at specified location
- Confederate stranger approached and presented lure
  - agreed to go → stranger terminated interaction and walked away
  - did not agree to go → stranger said “okay” and walked away



# LURES

- **General:** “Would you like to go on a walk around campus with me?”
- **Incentive:** “I will buy you an ice cream if you come with me”
- **Assistance:** “Can you help me carry this to my car?”
- **Authority:** “Your mom said you should come with me”





# OUTCOME MEASURE- IN SITU ASSESSMENT

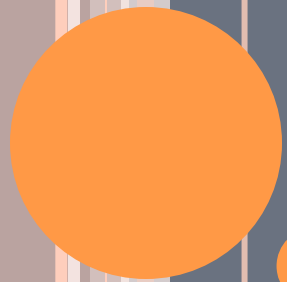
- 0 = agreed to leave with the stranger
- 1 = did not go with the stranger but failed to say “no”
- 2 = said “no”, did not walk away or report
- 3 = said “no”, walked away, did not report
- 4 = said “no”, walked away, and reported
- **Criterion = score of 3 or higher**



# PROCEDURE- INTERVENTION

- 3 consecutive days of 30-min BST sessions
  - Instruction
  - Modeling
  - Role Play
  - Feedback





# INSTRUCTION

# When you go out...

- It is always important for someone you know and trust to know where you are
- You should always let that person know if you are walking away from them or going somewhere else from where they thought you were
- That way they know you are safe and they don't have to worry about you

# Who should you tell if you are walking away?

- You should tell the person you went out with
- This person can be your mom or dad, your aunt or uncle, your grandparents, your friend's parents, your teacher, your boss
- This person is not someone who works at the place where you are or someone you have just met



You should never walk away  
with a stranger without telling  
someone you know where you  
are going

# What is a Stranger?

- You see strangers all the time when you are out
  - Sometimes they even talk to you or your parents
  - You may see the same strangers over and over
    - If they work at the places you go, or they shop there too
- But you still do not know them

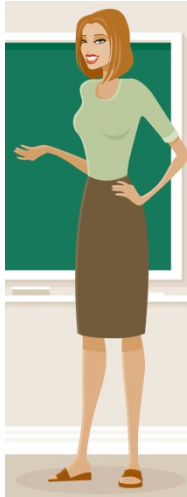


- A stranger is someone you don't know
- Even if you recognize people and they are friendly, they are still strangers



# It doesn't matter what they look like

- They can be
  - a man or a woman
  - young or old
- Can dress in any outfit
  - wear jeans and a t-shirt
  - dress up in a suit and tie



# Would you walk away with these people without telling the person you were with?



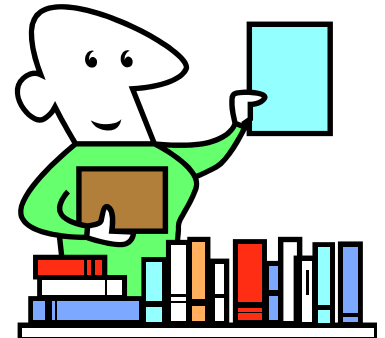
- Man who checks you out at the grocery store?
- Your Aunt?
- Lady who cuts your hair?
- Your boss at work?
- Teenager running at the park?



# What about with these people?



- The cashier at the store?
- Your best friend's mom?
- The person who works at the bookstore?
- Your waiter at a restaurant?
- Your teacher?

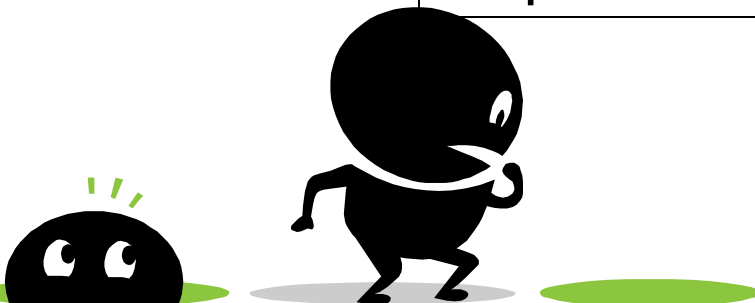


So a stranger is someone you  
do not know

- But a stranger might come up to you and ask you to go somewhere
- They might have different ways of trying to get you to go

# Sometimes a stranger might ask for **HELP**

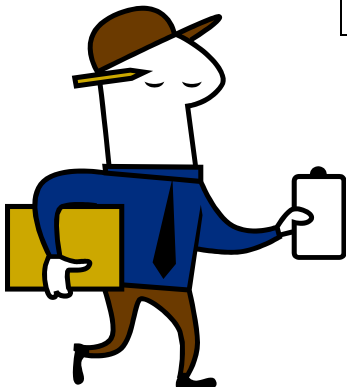
- “I lost my puppy, can you help me find him?”
- “Can you help me look for where the milk is?”
- “This is too much for me to carry, will you take these bags to my car with me?”
- “I lost my keys. Can you help me look for them?”



# Sometimes a stranger might promise to give you something



- “If you come with me, I’ll buy you some ice cream”
- “I saw a really cute shirt over there. Come with me and I’ll show you”
- “I’ll give you \$5 if you help me”



# Sometimes a stranger might say someone told them that you should **go with them**

- “Your sister wants you to go with me”
- “Your boss said you should come work with me today”

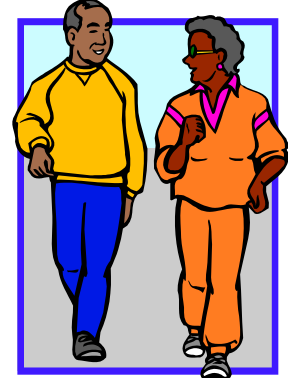


- “Your dad told me to come pick you up”
- “Your teacher said class is in a different room and I should take you there”

# Sometimes a stranger might just tell you to go with them **without a reason**



- “Would you like to take a walk with me?”
- “Would you like a ride in my car?”



- “I’ll give you a ride home”
- “Come with me”
- “I want to show you something over here”

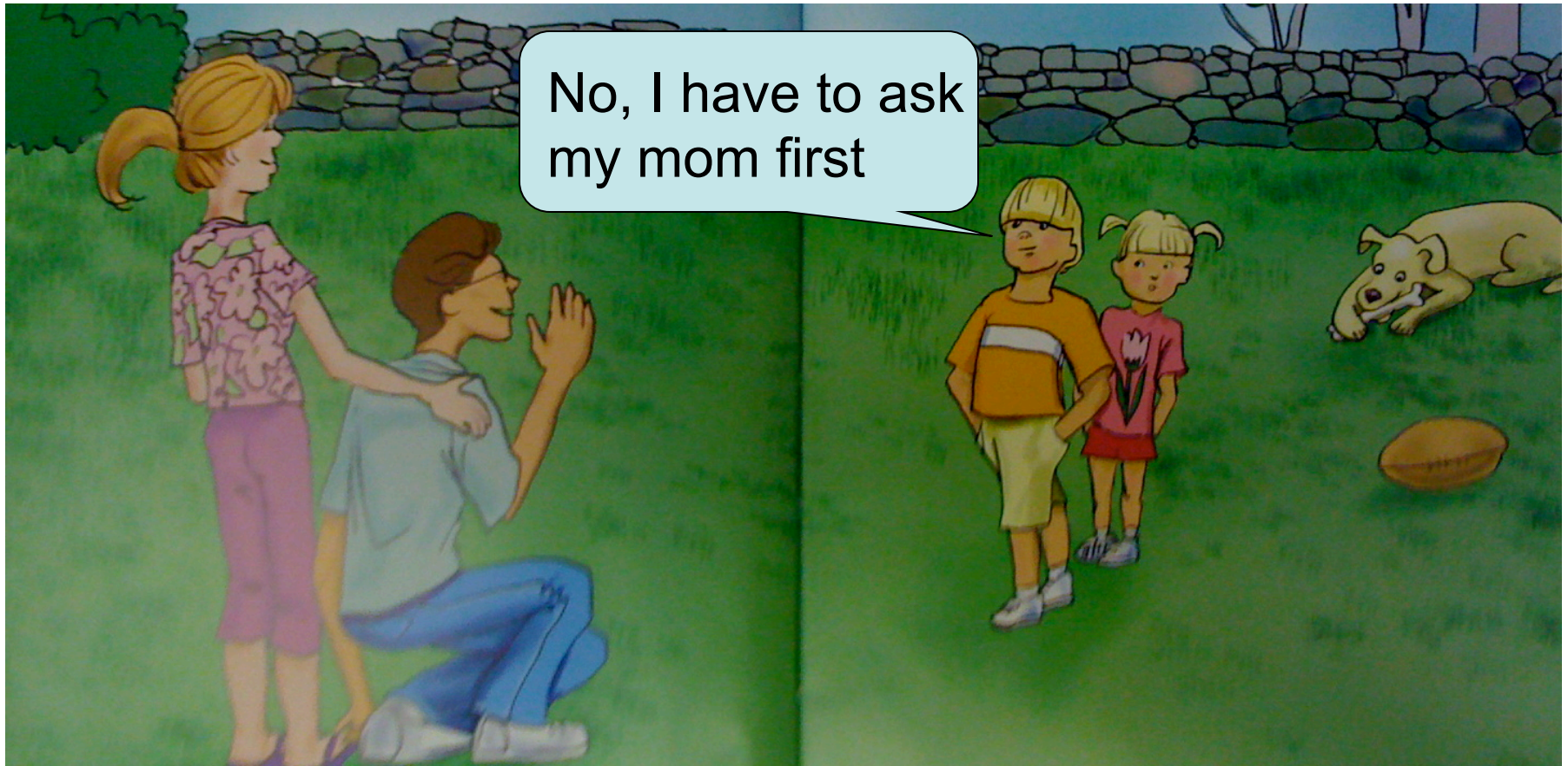




# What Should You Do if A Stranger Asks You to Go Somewhere?

You should never go somewhere alone without telling your parent or someone you know  
- even if it is in the same store

- **FIRST,**
  - You should **say “no”** and **give a reason**



- **SECOND,**
  - You should **walk away** from the stranger



- Toward the person you came with
- The person you know and trust

- **THIRD**

- You should find the person you came with and **tell** them about the stranger



- Can you tell me what you should do if a stranger comes up to you?

- Right! You should
  - **Say “no”** and give a reason
  - **Walk away**
  - **Tell** the person you came with about the stranger

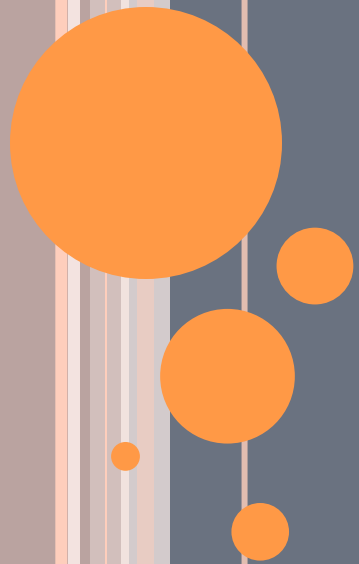
- Now, why don't you watch as we act out what you should do if a stranger comes up to you

# OUTCOME MEASURE- ROLE PLAY

- Percentage of points earned throughout role play
- 5 role plays per session
- 1 point for each independent behavior
  - say “no”
  - walk away
  - tell an adult
- Up to 15 points per session







# RESULTS

# RESEARCH QUESTION 1

- Prior to training, do adults with WS display the stranger safety skills of saying “no” and walking away when approached by a stranger?
- Score at Pretest ( $N = 32$  assessments)

Score	Pretest
0	13 (41%)
1	2 (6%)
2	14 (44%)
3	3 (9%)
4	

- 41% participants agreed to go *at least once*
  - 1 agreed to go 2 times
- 9% participants said no and walked away



# RESEARCH QUESTION 1: SUMMARY

- 18 of 21 (86%) did not display safety skills *at least once* prior to training
- Use of skills was inconsistent within individuals
- Adults with WS are an at risk group
  - could benefit from stranger safety BST



# RESEARCH QUESTION 2

- Can adults with WS learn the stranger safety skills during three days of group behavior skills training?

	Range	Average
Day 1	67% to 100%	96%
Day 2	80% to 100%	97%
Day 3	93% to 100%	99%



## RESEARCH QUESTION 2: SUMMARY

- Quickly learned the skills during training
- Independently displayed skills during role play



# RESEARCH QUESTION 3

- Will adults with WS use the stranger safety skills in response to a stranger lure after training?
- Score at Posttest 1 ( $N=28$  assessments)

	Pretest	Posttest
Score		
0	13 (41%)	3 (11%)
1	2 (6%)	
2	14 (44%)	10 (36%)
3	3 (9%)	6 (21%)
4		9 (32%)

- 3 participants agreed to go with the stranger
- 54% participants said “no” and walked away



# RESEARCH QUESTION 3: SUMMARY

- Following intervention
  - use of safety skills increased
  - was still variable
  - only 3 participants (14%) agreed to leave with the stranger
- 13 of 21 (62%) met criterion at least once
- Of those who did not meet criterion
  - 5 (71%) increased from baseline performance
    - said “no”



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# DISCUSSION



# DISCUSSION

- Examined real life behaviors of WS response to stranger lures
  - Adults with WS need stranger safety training
- First intervention to teach adults with WS to appropriately respond to lures from strangers
  - Rapid acquisition of skills in role play
  - Use of skills increased after training- still variable



# FUTURE DIRECTIONS

- Why did some say “no” at the beginning?
  - Need to see what they do in real life, instead of what parents say they do
- This year
  - Ask them if they would go with a stranger
  - Ask parents if they would go with a stranger
  - Watch them interact with strangers



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