

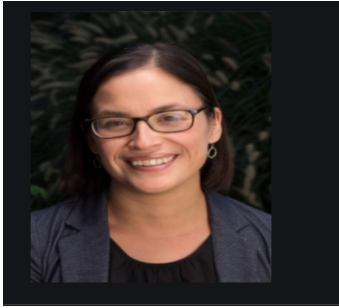


Growing up and going to school

Connie Kasari, PhD
UCLA
March 18, 2022

Disclosure Statement

The studies discussed were funded through grants awarded by National Institutes of Health, Institute of Education Sciences, and Health Resources and Services Administration (PI, Kasari)



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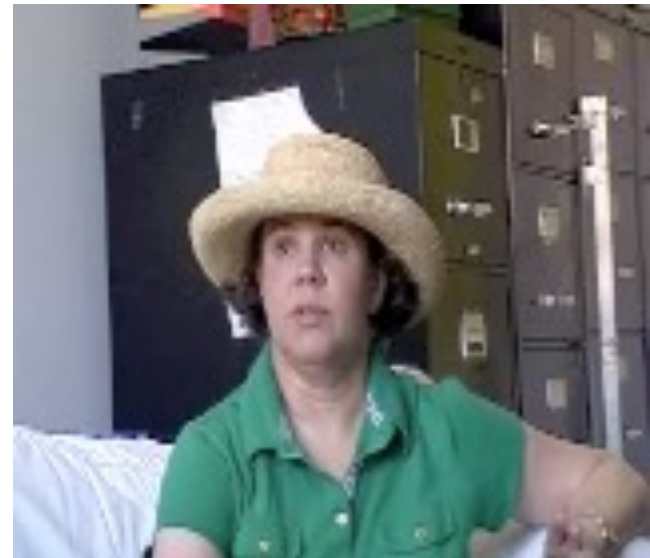
Recognition of my students who
collaborated on the studies to
be discussed

Remembering experiences at school

We have increasing knowledge about school experiences from highly verbal adolescents and adults with ASD

Recognition of differences between adult recollections and children going through it

Verbal ability differences....



Examples from verbal children 3rd graders, age 8

Unaware of his situation



Aware but poor strategies



Variability in Experiences

Great variability in how children experience their situations

Interventions need to consider these experiences but often do not

We tend to offer the same intervention to everyone.....

Important to ask children themselves, and to observe them in natural environments



Intervention
targets

Modular Intervention Examples



Intervention
targets

Modular Intervention Examples



Intervention
targets

Putting it
together

Known Known.....

Social, communication and behavioral difficulties variable

- May be difficult to interact with peers, develop friendships
- Poor adaptation to social situations in the moment
- Trouble managing multiple demands
- Not all children have social impairment and need intervention!



Proliferation of programs



Most address
social and
communication
impairments

They may or may
not be tested

They may not be
applicable to
school context

So what to do?

Determining Intervention Targets

The importance of good assessment

Known Known.....

Need multiple measures; Children are different across context and by reporter

Measurement Issues

| Approach | Challenges |
|----------------|----------------------------|
| Parent Report | Parents not at school |
| Teacher Report | Teachers not on playground |
| Self Report | Understanding? |
| Observations | Limited in time and scope |

Complicated.....

Likely need multiple measures of children in school as a single measure may not characterize the child's social environment accurately

Measure example 1.....

Proximal measures from
children themselves
(self-and-peer report)

FRIENDSHIPS SURVEY

What is your name? Nahomy

Date: 10/14/09

School Name: _____

Age: 6

Are you a ~~BOY~~ or a GIRL? (circle one)

1. Are there any kids in your class that you like to hang out with?
Who are they? (Use first names only; plus last initial if needed)

My best FRIEND is
Faith, Hanna and Karolina -

2. Circle the names of the 3 kids you most like to hang out with.

3. Put a STAR * next to the name of the ONE kid you most like to hang out with.

4. How often do you play with the friend with the STAR * next to their name? (circle one)

almost everyday

sometimes

only once in a while

5. Are there any kids in your class that you don't like to hang out with?
Who are they? (Use first names only, plus last initial if needed)

Citali

Citali

Magli
(magali)

Srgol
(sergio)

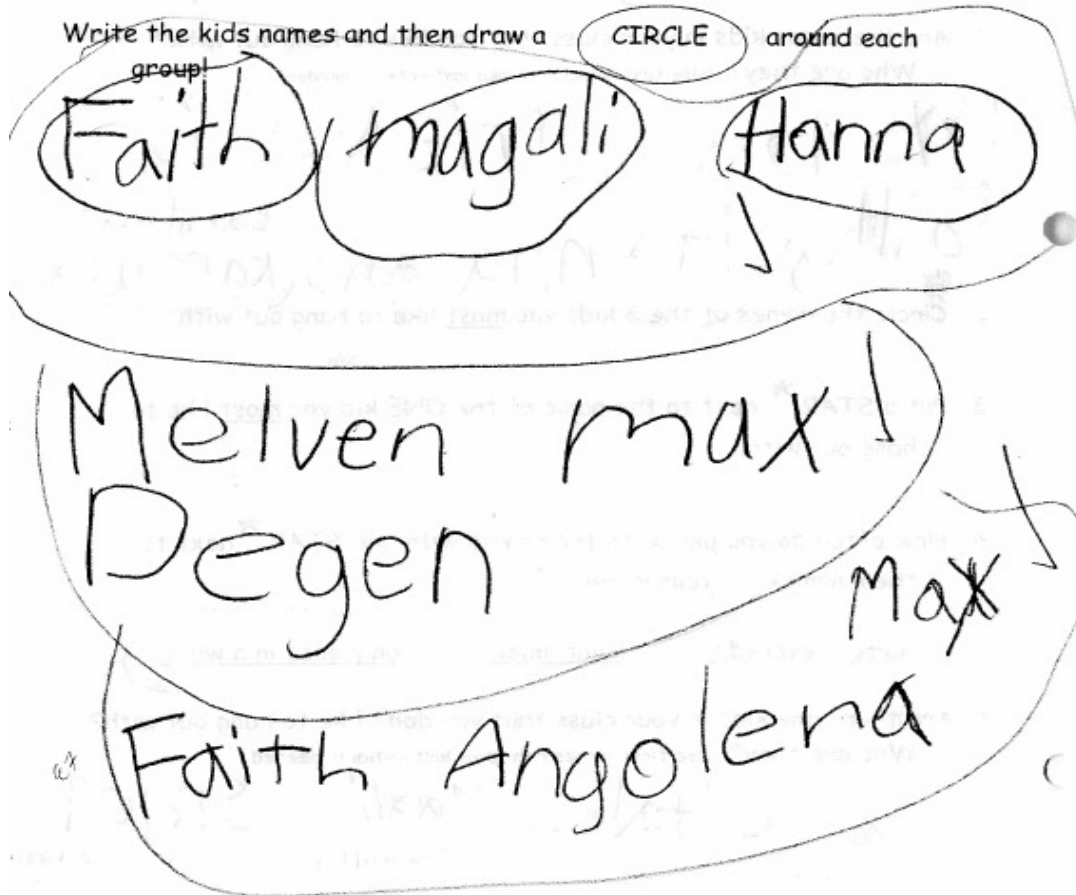
6. What is your favorite game to play at school? Who do you play this game with?

Hid-and-seeK
Magali

7. Are there kids in your class who like to hang out together?
Who are they?

Remember to think about Boys and Girls. Remember to put yourself if you hang out with a group.

Write the kids names and then draw a CIRCLE around each group!



FRIENDSHIPS SURVEY

What is your name? _____

Date: _____

School Name: _____

Teacher Name: _____

Birthday: _____

Are you a **BOY** or a **GIRL**? (circle one)

1. Are there any kids in your class that you like to hang out with?

Who are they? (Use first names only; plus last initial if needed)

2. Circle the names of the 3 kids you most like to hang out with.

3. Put a STAR * next to the name of the ONE kid you most like to hang out with.

4. Are there any kids in your class that you don't like to hang out with?

Who are they? (Use first names only, plus last initial if needed)

5. Are there kids in your class who like to hang out together?

Who are they?

Remember to think about Boys and Girls !

Remember to put yourself if you hang out with a group!

Draw a  around each group!

Information We Get:

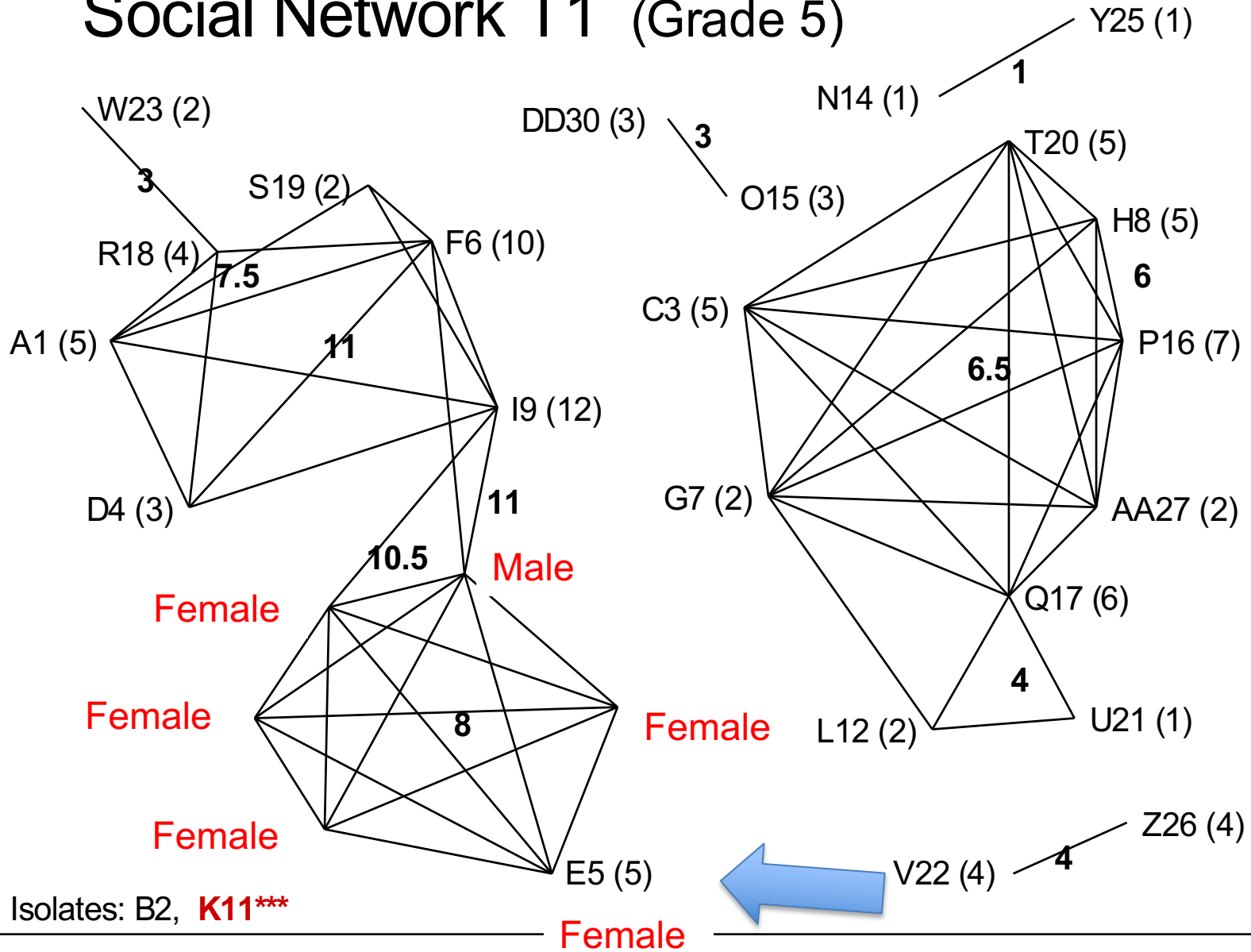
Friendship Nominations
Friendship Reciprocity
Non-Preferred Nominations

Information We Get:

Social Network Inclusion
Classroom Connections

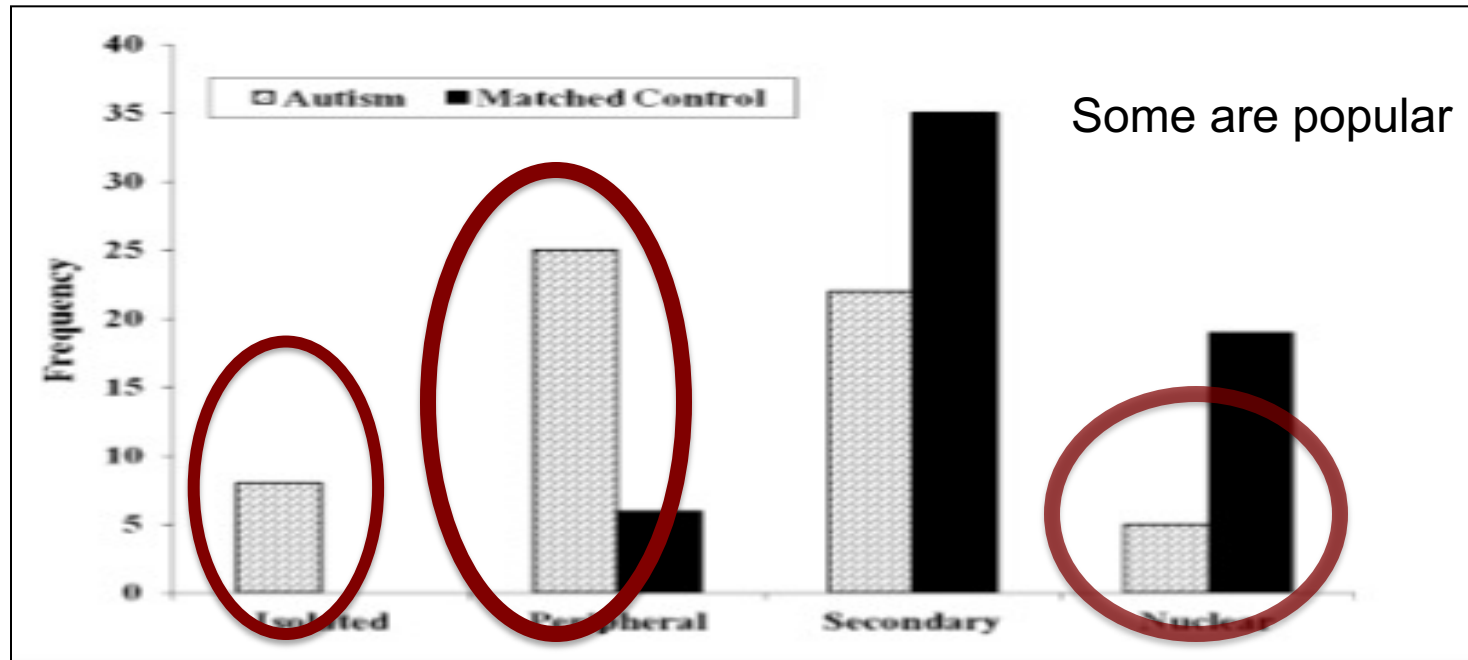
(Kasari et al., 2012)

Social Network T1 (Grade 5)



Few children isolated!

Most are peripheral to the main social groups, just loosely attached to others



Chamberlain, Kasari, Rotheram-Fuller, *JADD*, 2007; Kasari et al, *JADD*, 2011; Rotheram-Fuller et al, *JCPP*, 2010

Social Networks

- Girls and boys with ASD most often identify with their own gender when choosing friends and socializing.
 - Some age effects with boys with ASD connected to girls at young ages; shifts by 3rd grade
- Rejection (who do you not like to play with)
 - Boys > Girls
 - ASD > Typically Developing

Measure example 2

How do self and peer report align with observations?

Coding of interactions during recess



We code engagement states, and initiations and responses of children to each other using the Playground Observation of Peer Engagement (POPE)

Recess comparisons

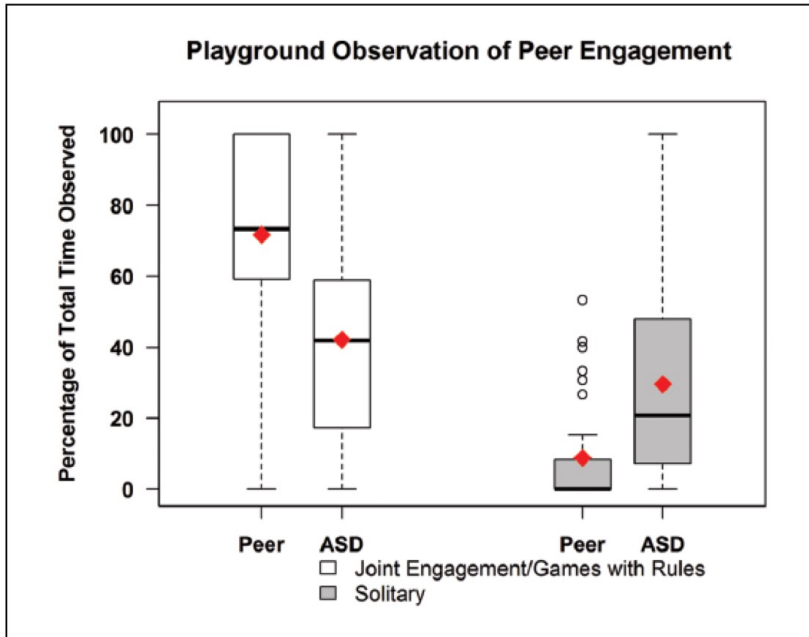


Figure 3. Solitary and joint engagement comparisons of children with ASD and their matched peers. Black bars indicate the median and the diamonds are the averages. The length of the whiskers of the box plot represents ± 1.5 interquartile range from the 25th percentile or the 75th percentile.

- 51 typical and 51 ASD classmates
- Matched on gender, classroom, grade, age and ethnicity
- ASD: 30% recess solitary; 40% jointly engaged
- Typical: 9% solitary; 70% jointly engaged

What do we take away?

- Measurement is critical, and likely multiple measures needed
- Need to consider differences in girl and boy social behavior
- Not all children require interventions; children with same level of engagement on playground as typical classmates likely do not require intervention (Shih, W., Patterson, S. Y., & Kasari, C. (2016). *Journal of Clinical Child & Adolescent Psychology*, 45(4), 469-479.

2

Intervention Examples

Most common intervention for children with ASD in schools?

1. Paraprofessional aide (shadow teacher)
2. Peers....buddy system in elementary; mentor in secondary

Study 1: Peer versus adult mediated

Making the connection: randomized controlled trial of social skills at school for children with autism spectrum disorders

Connie Kasari,¹ Erin Rotheram-Fuller,² Jill Locke,³ and Amanda Gulsrud¹

¹Center for Autism Research and Treatment, Department of Psychiatry and Biobehavioral Sciences, University of California, Los Angeles, CA; ²College of Education, Temple University, Philadelphia, PA; ³Center for Mental Health Policy and Services Research, University of Pennsylvania, Philadelphia, PA, USA

Background: This study compared two interventions for improving the social skills of high functioning children with autism spectrum disorders in general education classrooms. One intervention involved a peer-mediated approach (PEER) and the other involved a child-assisted approach (CHILD). **Method:** The two interventions were crossed in a 2 × 2 factorial design yielding control, PEER, CHILD, and both PEER and CHILD conditions. Sixty children participated from 56 classrooms in 30 schools. Interventions involved 12 sessions over 6 weeks, with a 3-month follow-up. Outcome measures included self, peer and teacher reports of social skills and independent weekly observations of children on their school playground over the course of the intervention. **Results:** Significant improvements were found in social network salience, number of friendship nominations, teacher report of social skills in the classroom, and decreased isolation on the playground for children who received PEER interventions. Changes obtained at the end of the treatment persisted to the 3-month follow-up. **Conclusions:** These data suggest that significant improvements can be made in peer social connections for children with autism spectrum disorders in general education classrooms with a brief intervention, and that these gains persist over time. **Keywords:** Social skills, autism spectrum disorders, peer relationships, sociometrics, school.

- 60 children
- All above 65 IQ
- Fully included general education
- 1st through 5th grade
- Primary measure: Social network change

Study situated in schools

Child Assisted Approach



Peer Mediated Approach



Modular, individualized approach

Child Assisted

- Observed child on playground, obtained teacher reports, peer networks, self reports
- Determine top 3 problems for child engaging with peers
- Worked on 1 at a time



Modular, individualized approach



Peer Mediated

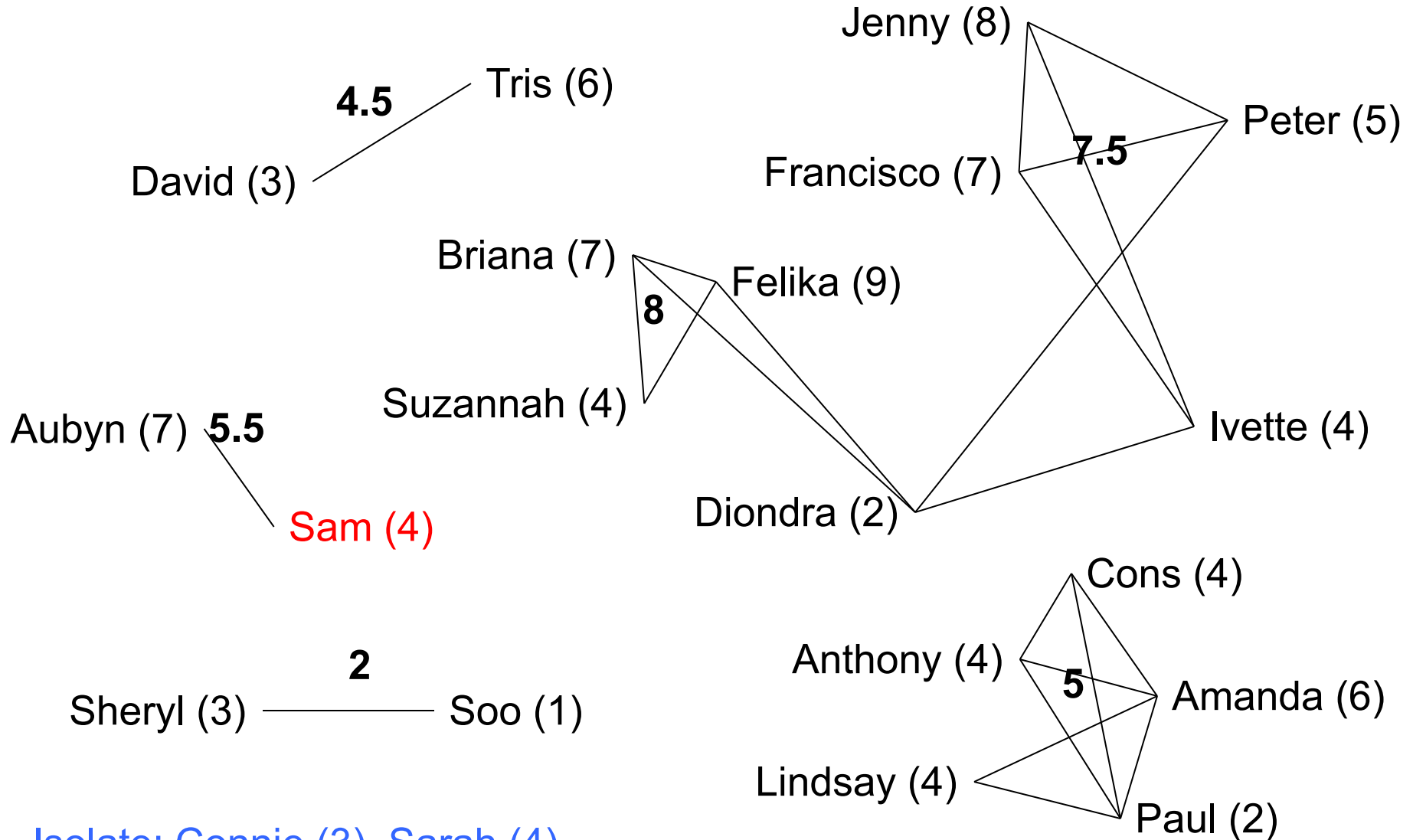
- 3 peers willing from the class
- Had peers identify some children who had difficulty on playground
- Had peers generate ideas to help engage all children on the playground

2 x 2 study design 4 conditions

| | |
|------------------------|---------------------------|
| CHILD (1:1) | PEER (3 peers) |
| NO Treatment | CHILD+PEER |

6 weeks, 12 sessions
3 month follow up

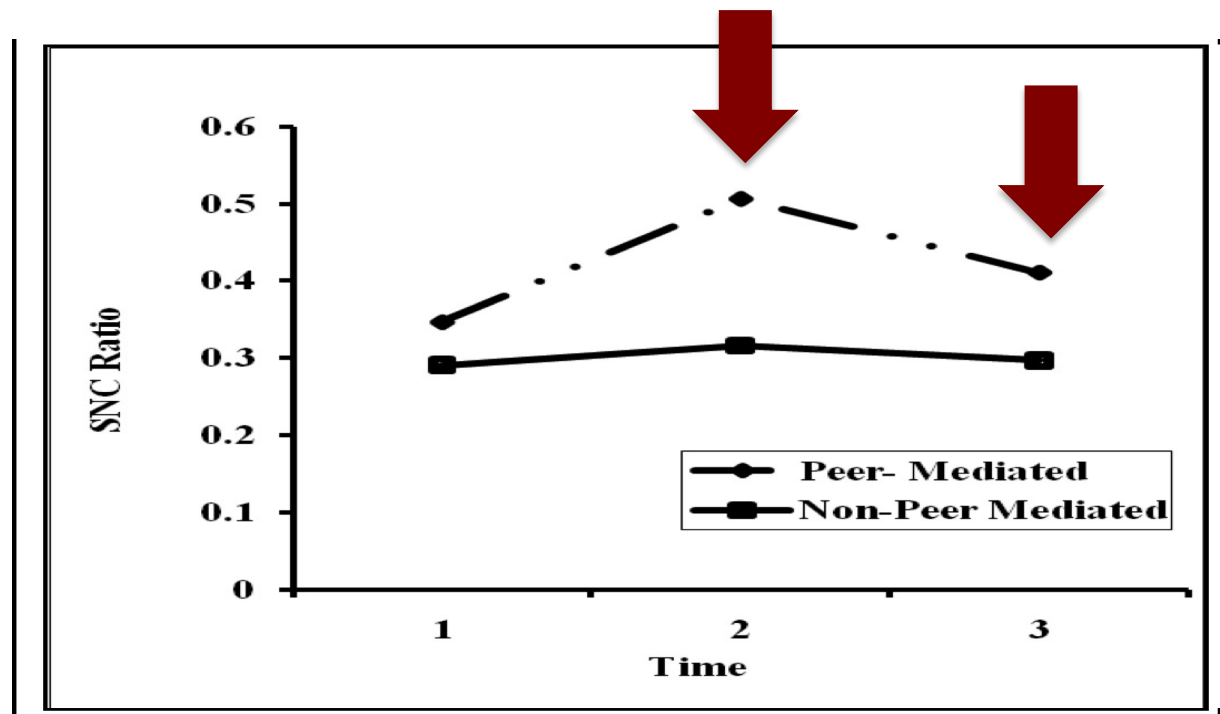
Social Networks at School



Isolate: Connie (3), Sarah (4)

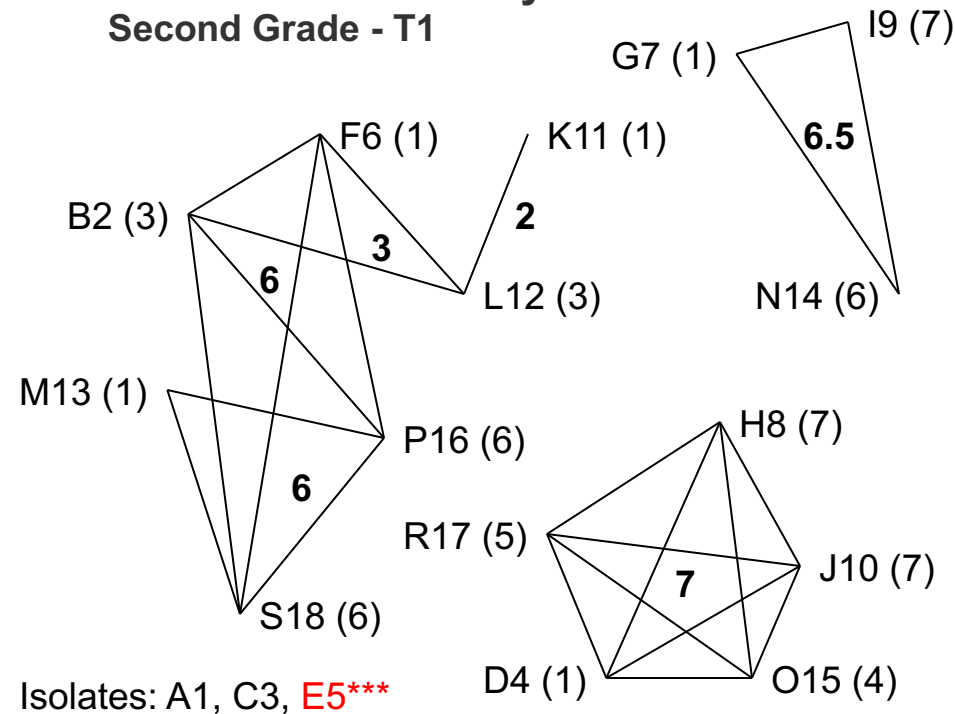
What we learned

Intervening with the peers made the most difference in engaging the children with ASD

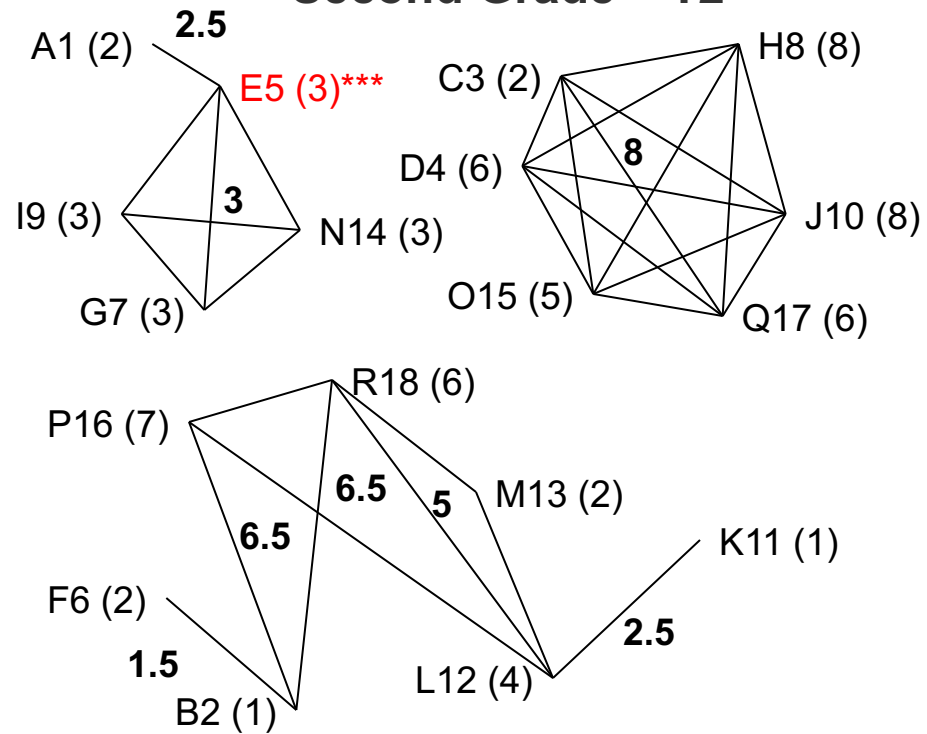


Social Network Centrality

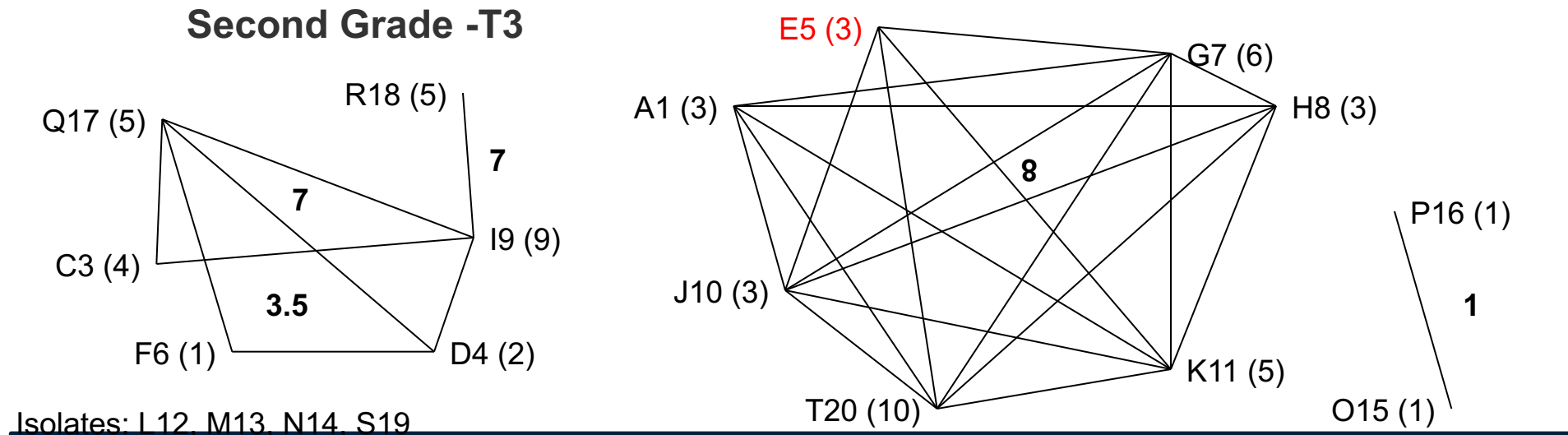
Second Grade - T1



Second Grade - T2



Second Grade - T3



Also what we learned

| | |
|-------------------------|---------------------------|
| CHILD (1:1) | PEER (3 peers) |
| NO Treatment | CHILD+PEER |

6 WEEK TREATMENT (12 SESSIONS)

12 WEEK FOLLOW UP

- Other Findings favoring Peer Mediated Interventions:

- Number of Received Friend Nominations (d=.74)
- Less isolated on playground (growth curves over tx)
- **Improved rating of social skills (by Teachers) (d=.44)**

Limits of generalization

Connecting observations to self and peer report

- IF child was connected to other children and had a reciprocated friend in class
- S/he was no more engaged on the playground!

What can we take away?

- Peers matter.
- Considerations may differ for boys and girls, and by age
- Change is possible, but consider the context in which you want change
- Interventions are needed on the playground!

Study 2: Playground specific interventions

Playing Games

Autism Intervention Research Network – Behavioral Health (AIR-B)

Remaking Recess

By: Mark Kretzmann, Jill Locke & Connie Kasari
Illustrations by: Bere Muñoz and Graphikslava

Facilitating Peer Conversations

Conversations with Peers – Help children have conversations with each other (defined as four or more back and forth exchanges between children).

Conversation Starters – strategies that assist children in initiating and maintaining conversations and improving reciprocal interactions with peers. If the target child has difficulty engaging in conversations with peers during lunch, provide fun topics to talk about.

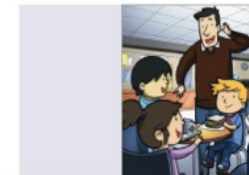
There are many ways to stimulate conversations between children at school. Remaking Recess focuses on using Social Menus, but other methods can also stimulate conversation between children (i.e. a Topic Box, Picture Prompts, or Interesting Objects).

- During times when children have opportunities to converse give them direct instructions to talk to each other. Example: “Now is the time for you to talk to each other.”
- Offer social menus to all children in the area. Do not single out the target child by approaching them only. Instead target the cluster of peers they are closest to by offering the social menus to the group.
- Give the menus to the children with the instructions “Here are some fun things for you and your friends to talk about”
- Move away so that the children aren’t tempted to talk to you instead of each other.
- Observe the children from a distance. If needed, move back and prompt them to ask each other the questions on the menu. Praise children who are having good conversations.

It may help to give the target child and a peer model/buddy a “job” (e.g. ball

Initiating and Responding

| Helping the Target Child Initiate and Respond to Peers | Helping Peers Initiate and Respond to the Target Child |
|--|--|
| Remind the Target Child To: | Remind Peers To: |
| <ul style="list-style-type: none"> • Pay attention to who he/she is talking to. • Listen before trying to join an existing conversation. • Stay near the person he/she is talking to—not too close and not too far. Be sure that the target child does NOT walk away. • Use an appropriate tone of voice—not too loud and not too soft. • Direct their initiations to the peer by grabbing their attention (e.g. use a name—(e.g., Hey John!)—or lightly tap the child on the shoulder if he is not facing them). • Use facial expressions that show how they are feeling—if you’re happy, smile! • Stay on the topic of conversation (even if it is something they may not be interested in). • Be sure to take conversational turns. | <ul style="list-style-type: none"> • Be patient—give the target child a few moments to respond. Sometimes it takes people a little bit longer. • Be persistent—politely try again if he/she does not respond. • Share a topic of mutual interest (talk about something they both like). • Be aware of the “right” time to approach the target child (e.g., when he/she is not already engaged). • Make sure to trade information —take turns in the conversation. |



Remaking Recess covers topics like...



Assessment



**Conflict
Mediation**



Communication



**Social
Engagement**



**Flexible
Thinking**



Principal does intervention!



Visual social conversation starters

Lunchtime Social Menu
Today's Topics
These are topics & ideas for conversations between you & your friends.

Ask a friend: Can you be friends with someone who sometimes annoys you?



Ask a friend: Do you think everything will always be fair? Does fairness look the same to everybody?

Lunchtime Social Menu

Today's Topics
These are ideas for conversations between you and your friends.

Ask a friend: Would you rather have one thousand dollars or one thousand pieces of candy?



Ask a friend: Do you have any ideas for new inventions?



Joke: What stays in the corner but travels all over the world?
Answer: a stamp

Joke: Why can't a bicycle stand up by itself?
Answer: because it's two-tired

Today's Games
Ask a friend to play one of these games today or makeup your own game together.

I Spy
Alphabet Story

Please recycle!

Lunchtime Social Menu

Today's Topics
These are topics and ideas for conversations between you and your friends.

Ask a friend: What are your favorite songs?



Ask a friend: Would you rather wrestle a skunk or eat an insect?



Joke: What makes music on your head?
Answer: A headband

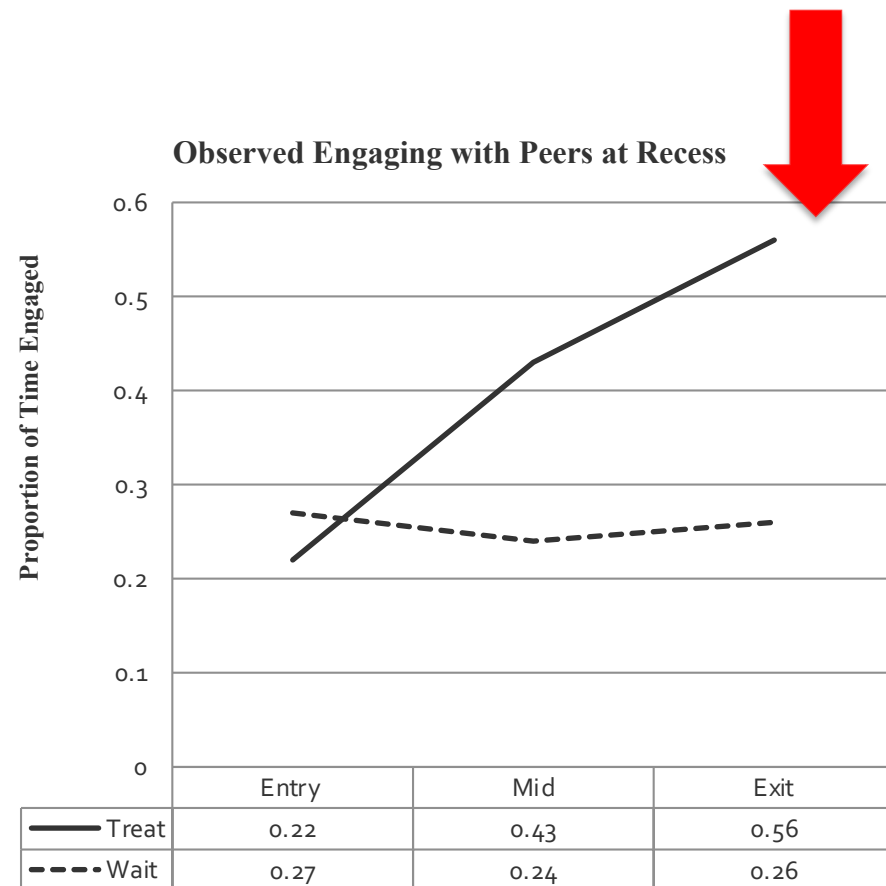
Joke: What time do you go to the dentist?
Answer: Tooth-Hurty

Today's Games
Ask a friend to play one of these games today or makeup your own game together.

2 Truths and 1 Lie
One Word Story

Please recycle!

Paraprofessionals can improve child engagement on the playground (6 weeks)



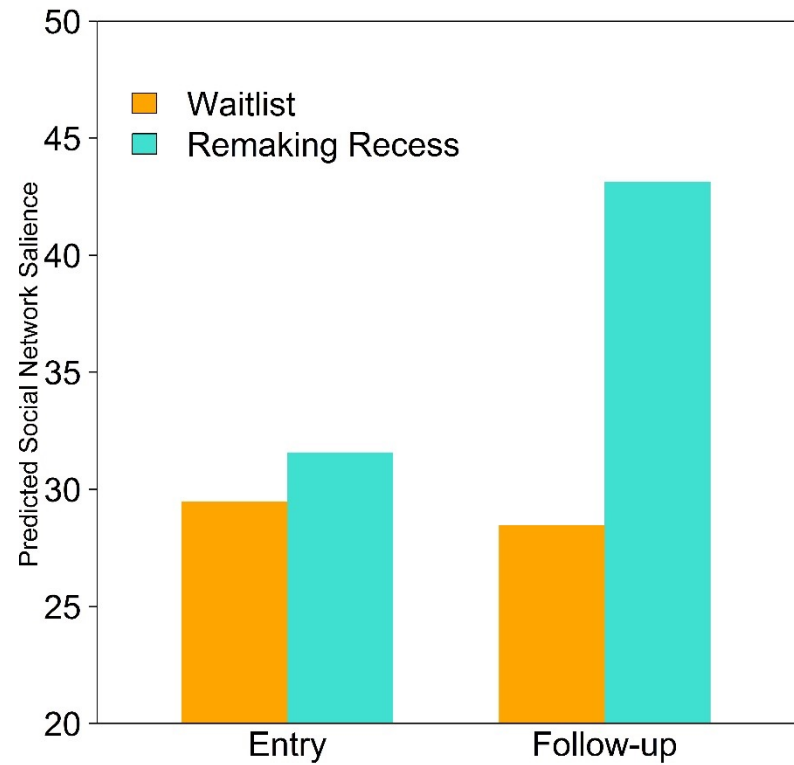
(Kretzmann, Shih & Kasari, 2014)

Larger Multi-site Study

Extension Study

- 80 verbal children with ASD in inclusive settings
- K-5th grade
- 69 classrooms, across 35 schools
- 3 sites (Los Angeles, Philadelphia, Rochester)
- 39 RR, 41 WL

Social network connectivity pre-intervention to follow up



What can we take away?

- Paraprofessionals can make change in child engagement on the playground.
- Studies have been uneven, sometimes improving observations by blinded observers, and sometimes not
- Suggests there is likely great variability day by day, or that.....
- Some children may need more intensive interventions

Study 3

Some children will benefit from direct instruction

Supporting social skills

In thinking about inclusion.....

Issues to consider

- Propinquity
 - Children more likely to be friends with those they have contact with
 - Geographical compatibility
- Homophily
 - Children connect to other children on common interests, other similar characteristics (age, gender, cultural background)

Engage versus Skills groups

ENGAGE group---Typical and ASD from same classes; approach interest based

OR

SKILLS group---all ASD from different classes; approach didactic

Social groups at school

THE JOURNAL OF CHILD
PSYCHOLOGY AND PSYCHIATRY

ACAMH THE ASSOCIATION FOR
CHILD AND ADOLESCENT
MENTAL HEALTH

Journal of Child Psychology and Psychiatry **:* (2015), pp **-**

doi:10.1111/jcpp.12460

Kasari #10

Children with autism spectrum disorder and social skills groups at school: a randomized trial comparing intervention approach and peer composition

Connie Kasari,¹ Michelle Dean,² Mark Kretzmann,³ Wendy Shih,³ Felice Orlich,⁴
Rondalyn Whitney,⁵ Rebecca Landa,⁶ Catherine Lord,⁷ and Bryan King³

¹Center for Autism Research and Treatment, University of California, Los Angeles, CA; ²Department of Special Education, California State University, Channel Islands, CA; ³Department of Psychiatry, University of California, Los Angeles, CA; ⁴Seattle Children's Hospital, University of Washington, Seattle, WA; ⁵Department of Occupational Therapy, Clarkson University, Potsdam, NY; ⁶Kennedy Krieger Institute, Johns Hopkins University School of Medicine, Baltimore, MD; ⁷Center for Autism and the Developing Brain, Weill Cornell Medical College, White Plains, NY, USA

Background: Peer relationships improve for children with autism spectrum disorder (ASD) in clinic-based social skills groups but rarely generalize to real world contexts. This study compares child outcomes of two social skills interventions conducted in schools with children in Kindergarten through fifth grade. **Method:** Children with ASD were randomized to one of two interventions that varied on group composition (mixed typical and ASD vs. all ASD or social difficulties) and intervention approach (didactic SKILLS based vs. activity-based ENGAGE groups). Interventions were implemented at school for 8 weeks (16 sessions) with an 8-week follow-up. Innovative measures of peer

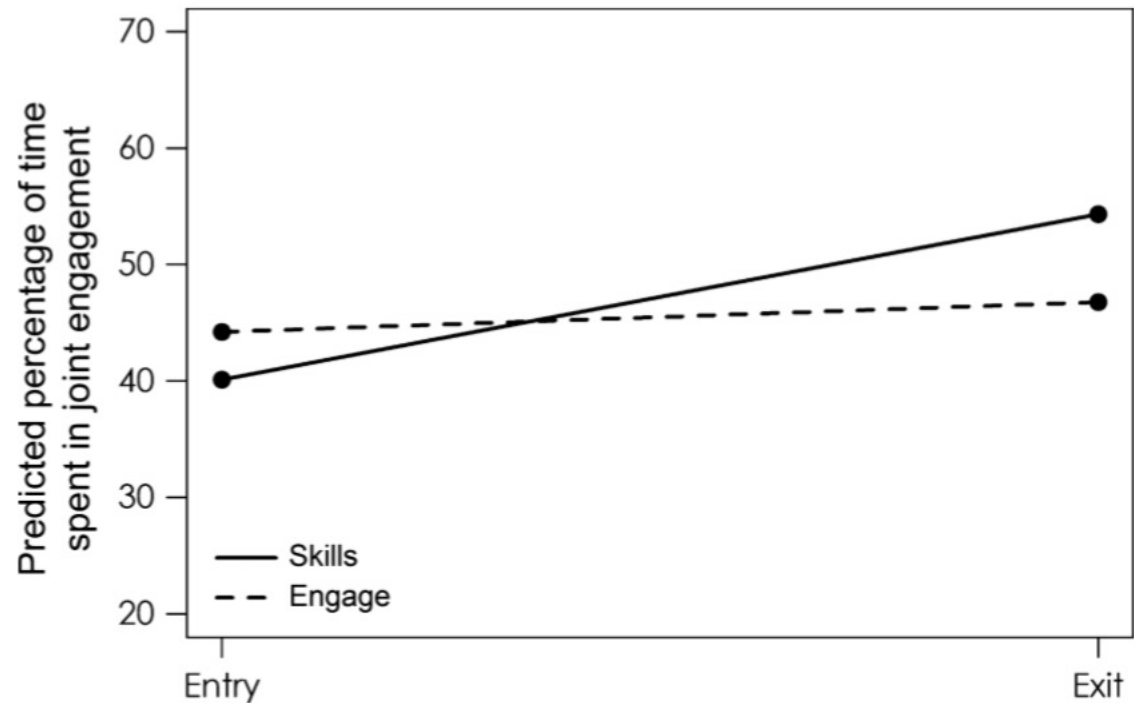
Study found ASD-ASD more engaged together at school

- RCT of 137 children with ASD, K-5th grade
- 120 classrooms
- Peer group and approach:

ENGAGE OR SKILLS group---conducted during lunch period (~20 minutes) 2 times per week

Results

- SKILLS was more effective for improving playground engagement



Figures 2 Predicted time in joint engagement across group and time

Important moderator

- Teacher relationship was important.....
- Good teacher relationship.....did better with ENGAGE
- Poorer teacher-child relationship and higher rated behavior problems---children did better with SKILLS intervention

What can we take away?

- Inclusion may be the right placement for lots of reasons
- Children will likely connect to other children like themselves (and this may be other children with ASD) (homophily)
- Issue is whether children have access to each other (propinquity)
- Teacher support and relationship with child is important
- Gender an important variable, especially with limited numbers of girls identified

3

Putting it together to Personalize Interventions

What needs to happen to help all children in a school setting?

Methodologies are needed to
personalize, tailor and target
interventions

Address for whom the intervention
works, and why.....

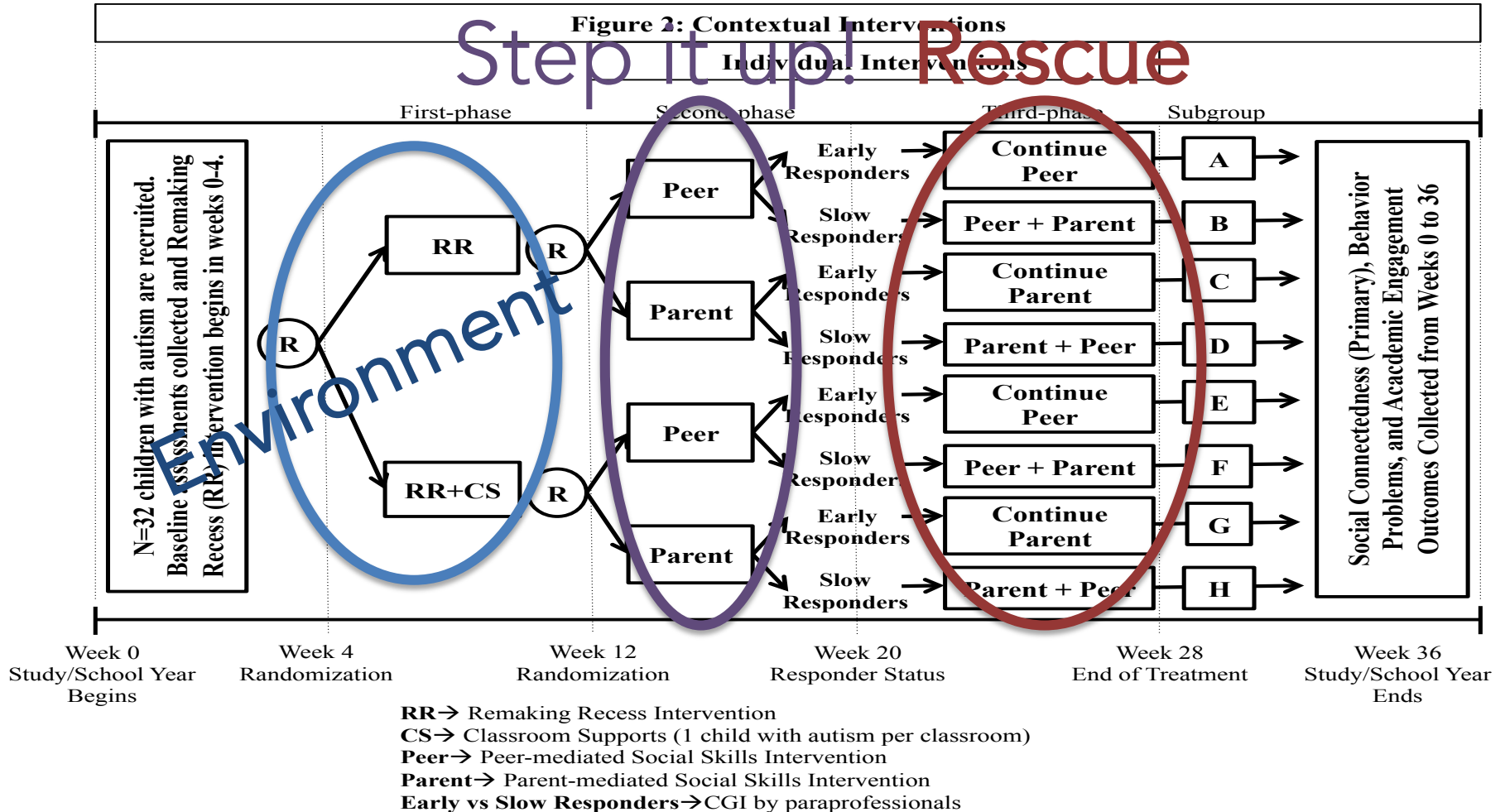
Sequence of treatments

Adaptations based on
child response

Adaptive Intervention designs systematize clinical practice

DEFINITION: A sequence of decision rules that specify whether, how, when (timing) and based on which measures, to alter the dosage (duration, frequency or amount), type or delivery of treatment(s) at decision stages in the course of care.

The Future...the known unknown ---research designs to personalize intervention



Conclusion

- What we know.....
 - Need multiple assessments given variability of ASD
 - Interventions work in context expecting change
 - Interventions need to be adapted to school culture
- What we know we still do not know.....
 - While children need multiple and often sequential interventions, the actual sequence is unknown
 - We need to focus on combining and sequencing interventions systematically for different children—we cannot predict with confidence how well a child will do with a particular intervention

airbnetwork.org
kasarilab.org