

Last reviewed: February 2023

Intervention website: <https://mcsilver.nyu.edu/4rs-2ss/>

GUIDEBOOK INTERVENTION INFORMATION SHEET

4Rs and 2Ss

Please note that in the ‘Intervention Summary’ table below ‘child age’, ‘level of need’, and ‘race and ethnicities information is **as evaluated in studies**. Information in other fields describes the intervention as **offered/supported by the intervention provider**.

Intervention summary	
Description	4Rs and 2Ss is a therapeutic intervention for families living in disadvantaged communities with a 7- to 11-year-old child diagnosed with oppositional defiant disorder or a conduct disorder. It is delivered by two practitioners and a family peer advocate to groups of six to eight families through 16 one-hour sessions.
Evidence rating	2
Cost rating	1
Child outcomes	<ul style="list-style-type: none">• Supporting children’s mental health and wellbeing<ul style="list-style-type: none">- Improved social behaviour.• Preventing crime, violence, and antisocial behaviour<ul style="list-style-type: none">- Improved behaviour.
Child age (population characteristic)	7 to 11 years
Level of need (population characteristic)	Targeted Indicated

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Intervention summary	
Race and ethnicities (population characteristic)	<ul style="list-style-type: none">• Asian/Pacific Islander• Black/African American• Hispanic/Latino• Native American• White.
Type (model characteristic)	Group
Setting (model characteristic)	<ul style="list-style-type: none">• Outpatient setting• Community centre• School.
Workforce (model characteristic)	Two mental health professionals and a family advocate
UK available?	Yes
UK tested?	No

Model description

4Rs and 2Ss is a therapeutic intervention for families living in disadvantaged communities with 7- to 11-year-old child diagnosed with oppositional defiant disorder or a conduct disorder.

4Rs and 2Ss is delivered by two practitioners and a family peer advocate to groups of six to eight families through 16 one-hour sessions. Parents and children attend the sessions together.

The intervention emphasises 4 Rs and 2 Ss. The 4 Rs are:

- **Rules.** Rules organise the family. They also organise a child's life in other areas like school, in the community, etc. Parents establish the rules and set up systems for knowing when they are and are not being followed. Rules should have a consequence if broken and a reward if followed. Consequences and rewards must be applied consistently and in a timely manner.
- **Responsibilities.** Children and parents have differing responsibilities within the family system. This means that each member contributes to family success and also takes responsibility for problems when they occur.
- **Relationships.** Relationships represent how family members care about each other. Children are more likely to thrive when family relationships are positive.

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- **Respectful Communication.** Good communication provides the foundation for positive family relationships. Communication is essential for parents to understand what their children are doing and feeling and help children feel supported by their parents.

The two Ss are:

- **Stress.** Stress is something that happens to all family members. Stress can come from sources within or outside of the family system. A child's behaviour can look exaggerated when seen by a parent who is under a lot of stress, and a parent's stress can negatively impact the child.
- **Support.** When family members experience stress, additional support is sometimes required to help them cope. Both parents and children need positive, responsible sources of support. Sources of support may include family members, friends, church, school, mental health professionals, and other community resources.

Each session is organised around the following activities:

- A family social – during which participants check-in with the facilitators and each other while having refreshments or engaging in more structured activities.
- Review roadwork – refers to assignments given to the families between sessions. Each week, participants discuss their roadwork and problem-solve with each other.
- Let's talk & let's share – facilitators introduce a new topic for families to discuss and share ideas and experiences.
- Let's practise – encourages families to practise ideas and receive feedback from the group and facilitators.
- This week's roadwork – introduces a task or assignment for family members to try during the following week.

Target population

Age of child	7 to 11 years
Target population	Families with a child aged 7 to 11 years who has been diagnosed with oppositional defiant disorder or conduct disorder

Please note that the information in this section on target population is as **offered/supported by the intervention provider**.



Theory of change

Why		Who	How	What		
Science-based assumption	Science-based assumption	Science-based assumption	Intervention	Short-term outcomes	Medium-term outcomes	Long-term outcomes
Oppositional behaviour during primary school interferes with school achievement and increases the risk of behavioural problems becoming more serious in adolescence.	Effective parenting practices and positive relationships between family members reduces the likelihood of oppositional behaviour persisting.	High levels of family stress and disadvantage can interfere with effective parenting practices and positive family relationships.	<p>Group-based activities reduce the stigma associated with child behavioural problems and provide parents with opportunities to learn from each other.</p> <p>Parents learn and share effective strategies for improving:</p> <ul style="list-style-type: none"> • Children's behaviour • Family communication • Family relationships. 	<ul style="list-style-type: none"> • Parents experience less stigma and are more motivated to attend parenting support • Family relationships improve • Parents experience less stress • Families find greater support within their community. 	<ul style="list-style-type: none"> • Children's behaviour improves • Children are more engaged with school. 	<ul style="list-style-type: none"> • Children are at less risk of behavioural and mental health problems in adolescence • Children engage positively with others • Children have greater success at school.



Implementation requirements

Who is eligible?	Families with a child aged 7 to 11 years who has been diagnosed with oppositional defiant disorder or conduct disorder.
How is it delivered?	4Rs and 2Ss is delivered in 16 one-hour sessions by two practitioners and a peer advocate to groups of six to eight families.
What happens during the intervention?	<p>During each session, families participate in conversations about an R (Rules, Relationships, Responsibilities, Respectful Communication) or S (Stress or Support).</p> <p>Families then reflect, practise a skill associated with the R or S of the day, and discuss how to practise it during the week outside of the group.</p>
Who can deliver it?	The two practitioners who deliver this intervention are a Social Worker or Mental Health Counsellor and one Family Peer Advocate or Family Advocate.
What are the training requirements?	The practitioners have 5.5 hours of intervention training. Booster training of practitioners is not required.
How are practitioners supervised?	It is recommended that practitioners are supervised by one clinical supervisor (qualified to QCF-7/8 level) with 5.5 hours of intervention training.
What are the systems for maintaining fidelity?	<p>Intervention fidelity is maintained through the following processes:</p> <ul style="list-style-type: none"> • Training manual • Other printed material • Other online material • Fidelity monitoring • Virtual training and online learning modules.
Is there a licensing requirement?	No
*Contact details	<p>Contact person: Kara M. Dean-Assael</p> <p>Organisation: NYU McSilver Institute for Poverty Policy and Research</p> <p>Email address: kara.dean@nyu.edu</p> <p>Website: https://mcsilver.nyu.edu/4rs-2ss/</p> <p>*Please note that this information may not be up to date. In this case, please visit the listed intervention website for up to date contact details.</p>



Evidence summary

The most rigorous evidence for 4Rs and 2Ss comes from one comparison group study conducted in the United States consistent with Foundations' Level 2 evidence.

This study identified statistically significant reductions in oppositional defiant behaviours, improved social skills, and reduced impairment with playmates, as well as a reduced need for additional services in comparison to children not receiving the intervention. 4Rs and 2Ss parents also reported significant reductions in stress.

4Rs and 2Ss has preliminary evidence of improving a child outcome, but we cannot be confident that the intervention caused the improvement.

Search and review

	Number of studies
Identified in search	16
Studies reviewed	1
Meeting the L2 threshold	N/A
Meeting the L3 threshold	0
Contributing to the L4 threshold	0
Ineligible	15

Individual study summary: Study 1

Study 1	
Study design	QED
Country	United States



Study 1	
Sample characteristics	320 children aged between 7 and 11 years with a diagnosis of either Oppositional Defiant Disorder (ODD) or Conduct Disorder from outpatient clinics in underserved communities
Race, ethnicities, and nationalities	<ul style="list-style-type: none"> Black/African American: 29% (4Rs 2Ss group), 30% (SAU) Hispanic/Latino: 50% (4Rs 2Ss group), 46% (SAU) White: 7% 4Rs 2Ss (group), 9% (SAU) Other ethnicities include Native American, Asian/Pacific Islander.
Population risk factors	<ul style="list-style-type: none"> Children had a diagnosis of either Oppositional Defiant Disorder (ODD) or Conduct Disorder Participants were from outpatient clinics in underserved communities.
Timing	<ul style="list-style-type: none"> Baseline – studies 1a,b,c,d Mid-intervention (2 months) – study 1a Post-intervention (4 months) – studies 1a,b,c,d Follow-up (6-months) – studies 1a,b,c,d.
Child outcomes	<p><i>Post-intervention</i></p> <ul style="list-style-type: none"> Reduced oppositional/defiant behaviours Improved social skills. <p><i>Six-month follow-up</i></p> <ul style="list-style-type: none"> Reduced oppositional/defiant behaviours Reduced impairment with playmates.
Other outcomes	Reduced parental stress
Study Rating	2
Citations	<p>Study 1a: Chacko, A., Gopalan, G., Franco, L., Dean-Assael, K., Jackson, J., Marcus, S., Hoagwood, K. & McKay, M. (2015) Multiple family group service model for children with disruptive behavior disorders: Child outcomes at post-treatment. <i>Journal of Emotional and Behavioral Disorders</i>. 23 (2), 67–77.</p> <p>Study 1b: Gopalan, G., Chacko, A., Franco, L., Dean-Assael, K., Rotko, L., Marcus, S., Hoagwood, K. & McKay, M. (2015) Multiple family groups for children with disruptive behavior disorders: Child outcomes at 6-month follow-up. <i>Journal of Child and Family Studies</i>. 24 (9), 2721–2733.</p> <p>Study 1c: McKay, M., Gopalan, G., Franco, L., Dean-Assael, K., Chacko, A., Jackson, J. & Fuss, A. (2011) A collaboratively designed child mental health service model: Multiple family groups for urban children with conduct difficulties. <i>Research on Social Work Practice</i>. 21 (6), 664–674.</p>



Study 1

Study 1d: Small, L., Jackson, J., Gopalan, G. & McKay, M. (2015) Meeting the complex needs of urban youth and their families through the 4Rs 2Ss Family Strengthening Program: The ‘real world’ meets evidence-informed care. *Research on Social Work Practice*. 25 (4), 433–445.

Brief summary

Population characteristics

The study involved 320 youths aged 7 to 11 years and their families, residing in socioeconomically disadvantaged communities in New York City. The sample included 66% boys and 73% of the children were of ethnic minority backgrounds, with 49.78% being Hispanic/Latino and 29.33% African American. Caregivers had an average age of 35.72 years. The sample consisted largely of low-income families, with 40% earning less than \$10,000 annually, 72% of the families received publicly funded health insurance.

Study design

320 young people and their families across 13 clinics were assigned using a 2:1 allocation ratio, to either the 4Rs and 2Ss service delivery model group (n=225) or service as usual group (n=95). The first six to eight families screened and enrolled in a clinic were assigned to the intervention condition, and the next three to four families to the comparison condition. The service-as-usual group included all available clinic-based mental health services, including case management, individual, family and group therapy, and/or medication management.

There were some differences between groups at baseline (on caregiver age and marital statuses). Among participants who responded at six-month follow-up, it was reported there were no difference on baseline demographic characteristics between the groups.

Measurement

Measures were assessed at baseline, mid-intervention (two months), post-intervention, and six-month follow-up.

- **Parent report** measures included the Iowa Connors Rating Scale (Oppositional/Defiant Subscale), the Social Skills Rating System (Social Skills Subscale), the Impairment Rating Scale, the Parent Stress Index, and the Center for Epidemiological Studies Depression Scale (analysed as a moderator only).

Study retention

At six-month follow-up, 81% (N=261) of the sample were retained, representing 77% (N=173) of the intervention group, and 92% of the comparison group. Retention at post-intervention was unclear.



Results

Data-analytic strategy

Mixed-effects regression modelling or multilevel linear modelling were used to analyse longitudinal data, while accounting for individual variability and missing data, with group * time interaction as a fixed effect. Missing data was not imputed.

Findings

The study found that the intervention led to significantly greater improvements in child oppositional/defiant behaviour and social skills compared to the SAU condition post-treatment. No significant differences were found between the groups in terms of impairment. At six months post-treatment, there were still significantly greater improvements in child oppositional/defiant behaviour, as well as a significant reduction in impairment with playmates and need for services, but there were no sustained effects on social skills.

Limitations

The conclusions which can be drawn from this study are limited by a lack of baseline equivalence between groups, the non-random approach to creating groups, high differential attrition, and a lack of accounting for clustering (early and late enrollers) in the analysis.

Study 1: Outcomes table

Outcome	Measure	Effect size	Statistical significance	Number of participants	Measurement time point
Child outcomes					
Oppositional Defiant Behaviours	Iowa Connors Rating Scale (parent report)	d= 0.35	Yes	N/A	Post-treatment (4 months)
Oppositional Defiant Behaviours	Iowa Connors Rating Scale (parent report)	d= 0.34	Yes	N/A	6-month follow-up



Outcome	Measure	Effect size	Statistical significance	Number of participants	Measurement time point
Social Skills	Social Skills Rating System (parent report)	d= 0.32	Yes	N/A	Post-intervention
Social Skills	Social Skills Rating System (parent report)	N/A	No	N/A	6-month follow-up
Impairment (peers, parents, academics, self-esteem, family functioning, overall need)	Impairment Rating Scale (parent report)	N/A	No	N/A	Post-intervention
Impairment with playmates	Impairment Rating Scale (parent report)	d=0.27	Yes	N/A	6-month follow-up
Overall impairment and need for services	Impairment Rating Scale (parent report)	d=0.35	Yes	N/A	6-month follow-up
Impairment (Parents, academics, self-esteem, family)	Impairment Rating Scale (parent report)	N/A	No	N/A	6-month follow-up



Outcome	Measure	Effect size	Statistical significance	Number of participants	Measurement time point
Parent outcomes					
Parent stress	Parent Stress Index (parent report)	d=0.22	Yes	N/A	6-month follow-up

Other studies

No further studies were identified for 4Rs and 2Ss.

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Note on provider involvement: This provider has agreed to Foundations' terms of reference (or the Early Intervention Foundation's terms of reference), and the assessment has been conducted and published with the full cooperation of the intervention provider.