School- and Teacher-Level Factors Associated with Teachers' Acceptability and Implementation of Tier 2 Classroom Interventions

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Need for Interventions

- 13% - 20% of school-age children meet criteria for mental health disorder at any given year (Angold et al., 2002; Merikangas et al., 2010)
- Most common disorders include: ADHD, Anxiety, Mood, Conduct disorder (Satcher, 1999)
- 70% - 80% of mental health services for children provided in schools (Rones & Hoagwood, 2000)
- Research supported programming required by Individuals with Disabilities Education Act (IDEA; 2004) and promoted by Response to Intervention (RtI) framework and School-Wide Positive Behavioral Supports (SWPBS)
- Teachers are called upon to provide interventions, accommodations, informal supports, and aid in identification of students with these difficulties (Gibson, Stephan, Brandt, & Lever, 2014)

Teacher Training

Teachers have been deemed the “frontline” mental health workers and are often seen as “gatekeepers” to mental health services

No national mandate that teachers receive mental health service training

Surveys of teachers indicate behavior management is not adequately taught in teacher education programs (pre-service or professional development)

Up to 50% of teachers leave the field within 5 years, and more than one-third of those cite student behavior problems as the primary reason for their dissatisfaction

Gibson, Stephan, Brandt, & Lever, 2014; Siebert, 2005; Ingersoll & Smith, 2003

ADHD in the classroom

In the classroom, Attention-Deficit Hyperactivity Disorder (ADHD) is associated with a range of impairments and negative outcomes including:

- Teacher Stress and Burnout
- Student Academic Impairment
  - Test scores
  - Grades
  - Suspension/expulsion
  - Grade retention
  - School dropout
  - Teacher Conflict
  - Peer Conflict
  - Work Completion
  - Work Accuracy

Significant service use and associated cost

Barkley, et al., 2008; Loe & Feldman, 2007; Greene et al., 2002; Robb et al., 2011; Raggi & Chronis, 2006

Addressing ADHD in the Classroom

- Instructional and Behavioral approaches to address symptoms and impairment associated with ADHD and common comorbid issues are well established

- Tier 1
  - Praise
  - Differential Attention/Ignoring
  - Effective Instructions
  - Consistent/Explicit Class Rules
  - Breaking Instructions into Steps

- Tier 2
  - DRC
  - Token Economy

Epstein, Atkins, Culinan, Kutash, & Weaver, 2008; Evans, Owens, & Bunford, 2014; Luiselli et al., 2005; Raggi & Chronis, 2006

Daily Report Card (DRC)

- Tier 2 behavioral intervention for children with behavioral issues.
- Operationally defined 2-4 problem behaviors targeted
- Daily achievable behavioral goals based on baseline tracking
- Behavior shaped via daily home- or school-based rewards for goal completion
- Criterion made more difficult when success occurs
  - Adjust goals after 80% success rate across two of school

Jordan's Report Card

1. Respects Ms. Allen with 3 or fewer arguments	**#of Arguments**	**YES** ☐	**NO** ☐
	_____		
2. Works quietly with 3 or fewer disruptions	**#of Disruptions**	**YES** ☐	**NO** ☐
	_____		
3. Completes 25 % of class work	**% Complete**	**YES** ☐	**NO** ☐
	_____		

Teacher Comments:

Parent Signature: _____

Parent Comments:

DRC

- Effective - Effective for over 70% of children with ADHD (Owens et al., 2012)
- Adaptable - Effective when implemented by teachers receiving consultation from graduate students or counselors (Owens et al., 2008)
- Acceptable - Highly acceptable for teachers to use (Chafouleas et al., 2006; Girio & Owens, 2012)
- Accessible - Commonly used by teachers in wide variety of forms (Chafouleas et al., 2006)

However, high rates of variability in adoption and implementation. Why?

School-Level Factors

- School-level factors are associated with enhancing or minimizing specific teacher outcomes (e.g., depersonalization, emotional exhaustion, personal accomplishment) and attrition (Grayson & Alvarez, 2008; Miller, Brownell, & Smith, 1999)
- School climate is associated with implementation of Tier 1 (school-wide) programming (Gregory et al., 2007)
- Limited knowledge of relationship between school climate and Tier 2 interventions
  - Tier 2 intervention may require additional professional development or consultation
    - Is professional development encouraged as part of school climate?
    - Is innovation encouraged as part of school climate?
    - Are behavior problems generally handled inside or outside of the classroom?

Teacher-Level Factors

- Teachers' knowledge and beliefs about an intervention affect willingness to participate and intervention implementation integrity (Han & Weiss, 2005; Reimers et al., 1987)

- Teacher stress and professional burnout affect willingness and ability to implement and sustain an intervention with integrity (Hans & Weiss, 2005)

- Some teachers prefer not to engage in consultation, and age, years teaching, and beliefs are associated with responsiveness to consultation (Downer et al., 2014; Wickstrom et al., 1993)

You Can't Know What You Don't Know

- For obvious reasons, intervention data are only available *for those who participate in* intervention research

- Reasons for teacher non-participation could include:
  - Lack of viewing the proposed intervention as effective/appropriate/acceptable
  - Preference of relying on previously used strategies
  - High stress/burn-out and a lack of time for additional work

Current Study Aims

1. Examine school- and teacher-level factors associated with intervention acceptability, perceived importance of DRC, and confidence in DRC implementation

2. Compare teachers who participated to those who did not participate on intervention acceptability, importance, and confidence

3. Examine school- and teacher-level factors associated with overall rating of intervention implementation

Current Study

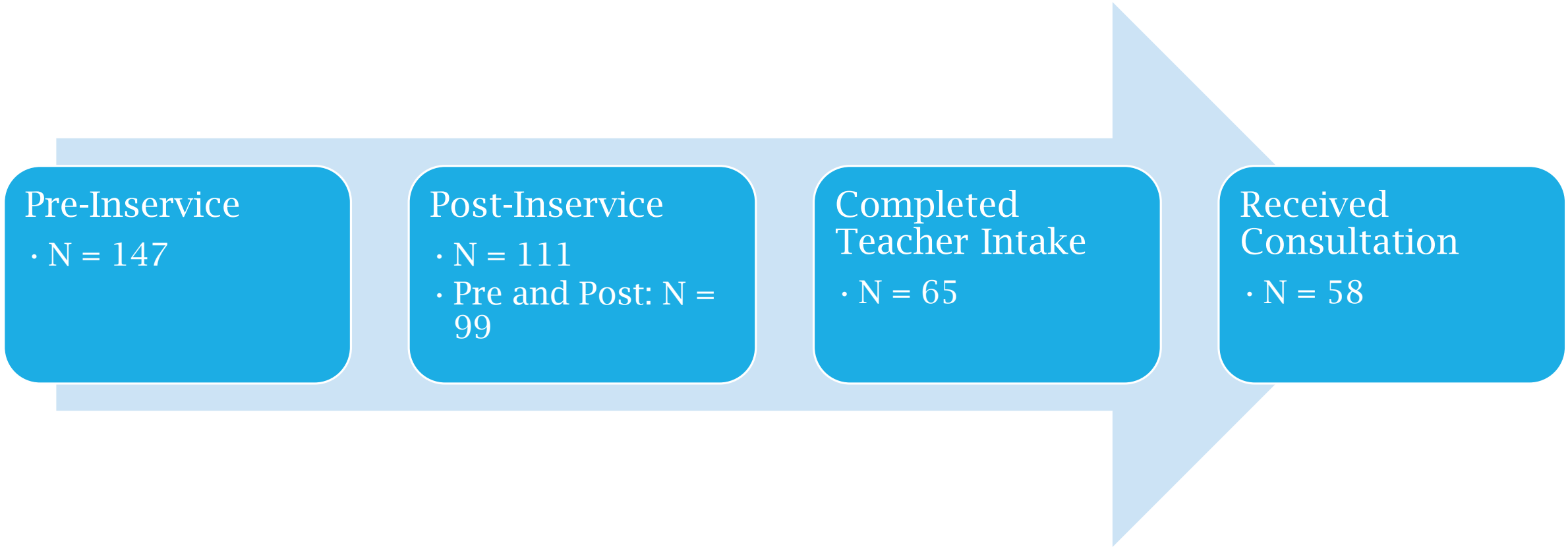
Three-year Institute of Education Science development grant

- Year 1: Manual Development
- Year 2: Pilot
- Year 3: Randomized Controlled Trial

Developed a multi-component teacher consultation to facilitate high quality implementation of a Daily Report Card (DRC) for children at-risk for or with ADHD

Two sites: mid-size city school district in a Midwestern state, urban school district in a Southern state

IES Grant: R324A120272


Pre-Inservice
· N = 147
Post-Inservice
· N = 111
· Pre and Post: N = 99
Completed Teacher Intake
· N = 65
Received Consultation
· N = 58

Variables

- School-Level Environment Questionnaire (SLEQ)
  - Student support (student-teacher relationships)
  - Affiliation (teacher interactions, collegiality)
  - Professional Interest (teachers discuss and seek professional development)
  - Innovation (experimentation and openness to new ideas)
  - Mission Consensus (consensus regarding overall goals of school)
- Teacher demographics (e.g., years in profession, years in building, training)
- Maslach Burnout Inventory (Personal Accomplishment, Depersonalization, Emotional exhaustion)
- DRC Importance and Confidence (ex. “Identifying specific behaviors to address with the intervention”)
- DRC Acceptability (ex. “I would be willing to use this in the classroom setting”)

Aim 1: What Individual Factors Predict DRC Importance

Variable	R^2	Standardized B	*p*
School-Level Factors			
SLEQ Student Support	.067	.260	.017
SLEQ Affiliation	.052	.228	.037
SLEQ Professional Interest	.063	.252	.021
SLEQ Mission Consensus	.037	.193	.079
SLEQ Innovation	.036	.189	.085
Teacher-Level Factors			
Years at current building	.000	-.002	.983
Years in profession	.016	.126	.252
Highest Degree	.004	-.065	.558
Pre/post inservice ADHD Training	.017	-.130	.237
Pre/post inservice Beh. Mod. Training	.017	-.132	.231
Emotional Exhaustion	.021	-.145	.189
Depersonalization	.125	-.354	.001
Personal Accomplishment	.063	-.250	.022

Aim 1: Key Factors Predicting DRC Importance

Variable	R^2	Standardized B	*p*
SLEQ Student Support	.067	0.260	.017
SLEQ Affiliation	.052	0.228	.037
SLEQ Professional Interest	.063	0.252	.021
Depersonalization	.125	-0.354	.001
Personal Accomplishment	.091	-0.302	.005

Aim 1: What Individual Factors Predict DRC Confidence

Variable	R^2	Standardized B	*p*
School-Level Factors			
SLEQ Student Support	.003	.050	.648
SLEQ Affiliation	.018	.134	.223
SLEQ Professional Interest	.005	.068	.541
SLEQ Mission Consensus	.002	.043	.701
SLEQ Innovation	.000	.009	.936
Teacher-Level Factors			
Years at current building	.002	.049	.657
Years in profession	.021	.145	.188
Highest Degree	.005	-.069	.533
Pre/post inservice ADHD Training	.015	-.122	.268
Pre/post inservice Beh. Mod. Training	.009	-.093	.399
Emotional Exhaustion	.000	-.003	.975
Depersonalization	.035	-.187	.089
Personal Accomplishment	.040	-.199	.069

Aim 1: What Individual Factors Predict DRC Acceptability

Variable	R^2	Standardized B	*p*
School-Level Factors			
SLEQ Student Support	.001	.030	.788
SLEQ Affiliation	.057	.238	.029
SLEQ Professional Interest	.070	.264	.015
SLEQ Mission Consensus	.030	.172	.118
SLEQ Innovation	.017	.129	.241
Teacher-Level Factors			
Years at current building	.000	-.021	.849
Years in profession	.000	.010	.926
Highest Degree	.001	-.024	.827
Pre/post inservice ADHD Training	.001	.038	.732
Pre/post inservice Beh. Mod. Training	.000	.007	.946
Emotional Exhaustion	.000	.013	.907
Depersonalization	.043	-.208	.058
Personal Accomplishment	.041	-.203	.064

Aim 1: Key Factors Predicting DRC Acceptability

Variable	R^2	Standardized B	*p*
SLEQ Affiliation	.057	.238	.029
SLEQ Professional Interest	.070	.264	.015

DRC Importance, Confidence, and Acceptability at Later Time points

The measure on burnout was also completed at Month 2 of the intervention and at the end of the intervention

At Month 2

- Personal accomplishment was negatively associated with DRC Importance
- All 3 burnout subscales were negatively associated with DRC Confidence
- Personal accomplishment and depersonalization were negatively associated with Acceptability

At post treatment

- Personal Accomplishment was negatively associated with DRC Importance, Confidence, and Acceptability

Aim 1 Summary

At pre/post inservice

School-level factors were more often associated with teacher ratings of DRC importance and acceptability than are teacher-level factors.

- None were associated with DRC Confidence

At later time points

Burnout continues to demonstrate an association with DRC importance and acceptability.

- All three subscales are related to confidence at Month 2
- Personal accomplishment subscale was associated across time points

Aim 2: Teacher Differences

Pre/post inservice: Compared teachers who participated and/or referred a child (n = 58) to those who did not participate or refer (n = 26)

Independent sample t-tests were non-significant, thus none of the examined school- or teacher-level factors differed between groups

Marginally significant: Compared to those who participated or referred, those who did not participate or refer

- Had more years in the current building (t = 1.91, p = .058, d = 0.43)
- Had a higher level of depersonalization (t = 2.00, p =.054, d = 0.53)

Aim 3: Factors predicting DRC Implementation

As part of the study, teachers were observed in the classroom 1-2 times per week.

For each DRC violation observed, the observer rated:

- Overall 1-10 global rating of DRC implementation

Predicting DRC Implementation Rating

Variable	R^2	Standardized B	*p*
DRC Importance	.003	-.053	.742
DRC Confidence	.013	-.114	.479
Acceptability	.043	.208	.176
ADHD Knowledge	.159	.398	.011
Locus of Control-Student Success	.020	.142	.438
Locus of Control-Student Failure	.364	.603	.001

Predicting DRC Implementation Rating

Variable	R^2	Standardized B	*p*
DRC Importance	.003	-.053	.742
DRC Confidence	.013	-.114	.479
Acceptability	.043	.208	.176
ADHD Knowledge	**.159**	**.398**	**.011**
Locus of Control-Student Success	.020	.142	.438
Locus of Control–Student Failure	**.364**	**.603**	**.001**

Summary

Before teachers had the opportunity to participate, school-level factors were more often associated with teacher rating of DRC importance and acceptability

After the opportunity to participate, there were no significant difference between those who participated/referred and those who did not

- Trends suggest teacher-level factors more important than school-level (i.e., years in building, depersonalization)

ADHD knowledge and sense of control over student failure are significant predictors of later implementation

Implication for Practice

Consider the extent to which professional development is promoted in a school

Monitor teacher burnout, particularly personal accomplishment over time.

- Reviewing DRC data can help the teacher see the larger picture of progress and perhaps build personal accomplishment

Assess teachers' knowledge of ADHD is important

- Consider providing psychoeducation on ADHD

Implications for Future Research

- Continue to examine the capacity and readiness at a school level for successful prevention program implementation

- Need to match consultation and support resources to teacher's needs

- ADHD knowledge and locus of control ratings impact teacher implementation
  - Use of Motivational Interviewing with teachers prior to recruiting for an intervention implementation and effectiveness study may lead to increased participation

Thank you

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