Contrasting one-on-one teacher coaching with coaching teacher pairs: An RCT testing impacts and sustainability
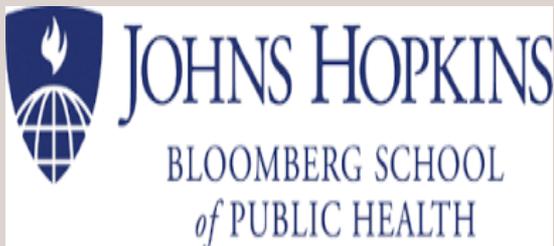
Presenter: Chelsea Duran, Ph.D.

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Drs. Elise Pas, Chelsea Duran, Katrina Debnam & Catherine Bradshaw

JOHNS HOPKINS
BLOOMBERG SCHOOL
of PUBLIC HEALTH

UNIVERSITY of VIRGINIA | CURRY SCHOOL of EDUCATION and HUMAN DEVELOPMENT

DOUBLE CHECK

Discipline Gap in Schools

Exclusionary discipline practices used more frequently for certain racial/ethnic groups and used differentially depending on offense

- Black and Hispanic students disciplined more harshly
- Black and Hispanic students suspended disproportionately more than White students for non-violent offenses (Data from U.S. Department of Education Office for Civil Rights (2011-2012))

Few existing professional development (PD) models to reduce disproportionality

- Training teachers in cultural proficiency and effective *classroom management* holds promise
- Few existing PD models around cultural proficiency and classroom management target *skill-building*

DOUBLE CHECK

Double Check (DC)

- Intervention designed to
  - Enhance teachers' culturally responsive practices
  - Address disproportionality by race in disciplinary practices
- Three-component framework:
  - School-Wide Positive Behavior Supports (SW-PBS)
  - Professional development (PD)
  - Coaching
- Original DC trial utilized one-on-one coaching and demonstrated effects on classroom behavior management strategies (Bradshaw et al., 2018)
- Could DC be made more efficient with paired coaching?

DOUBLE CHECK

The Promise of Coaching

In-service teacher coaching offers…

- Tailored support, practice, and problem-solving (Denton & Hasbrouck, 2009; Kraft et al., 2018; Pianta et al., 2008)

- Demonstrated improvements in instructional practice, declines in disciplinary referrals of Black students and in student disruptions (Bradshaw et al., 2018; Neuman & Cunningham, 2009; Reinke, Lewis-Palmer, & Merrell, 2008; Gregory et al. , 2016; Reinke et al., 2008)

Most robust research has focused coaching of one teacher at a time (i.e., one-on-one) -> concern for feasibility and sustainability in practice

DOUBLE CHECK

Paired Coaching Models

- Current state of knowledge regarding effectiveness unclear due to studies'
  - limited causal inference and generalizability
  - mixed results
  - inclusion of intervention beyond just coaching (e.g., PD, technology)
- Current study: Paired coaching was embedded in Double Check to test relative effectiveness

Aims

The present study examined data from a DC study utilizing *paired coaching* in conjunction with a prior study arm utilizing *one-on-one coaching* to understand *relative efficacy, sustainability,* and *time efficiency*.

1. Estimate main effects of *any DC coaching* on teacher classroom management practices and student behavior immediately at post-test and at one-year follow up

2. Estimate differential effects between the coaching models

3. Compute relative time efficiency between the coaching models

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Recruitment and Randomization

(*n* = 252)

	One-on-One Coaching Study Arm*	**Paired Coaching Study Arm**
Recruited:	*J* = 12 Schools	*J* = 6 Schools
Consented:	*n* = 158 Teachers	*n* = 94 Teachers
Randomized:	*n* = 100 Coached (One-on-One) *n* = 58 Comparison ("BAU")	*n* = 52 Coached (Paired) *n* = 42 Comparison ("BAU")

* The 158 teachers in the traditional coaching study arm were the same teachers represented in Bradshaw et al., 2018

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Participants and Procedures

- Participating teacher demographics:

  86% female, 81% White, 60% middle school,

  31% age <= 30 years

- All schools implementing positive behavior supports; collectively serving diverse student body

- Three time points of data collection:
  - **(1)** **Pre-test** at start of school year (before intervention; fall of year 1)
  - **(2)** **Post-test** at end of school year (spring of year 1)
  - **(3)** **Follow-up** one year after post-test (spring of year 2)

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Double Check Coaching

One-on-One Coaching

- Based on Classroom Check-Up model (Reinke, 2006; Reinke et al., 2011; Reinke et al., 2008)

- 5 Step Process:
    1. Interview
    2. 3 Coach Classroom Visits
    3. Feedback
    4. Collaborative Goal-Setting
    5. Implementation, Progress Monitoring

Paired Coaching

- Teachers paired based on: preferences, joint availability, pre-existing relationships

Teacher observation and peer classroom visit added to step 2

Steps 1, 3, and 4 conducted with both teachers simultaneously

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Measures

Aims 1 and 2 – Efficacy and Sustainability

- *Classroom observations of teachers' use of classroom management* and *culturally responsive practices* (ASSIST; Rusby et al., 2011; Rusby, Taylor, & Milchak, 2001)

  - Tallied Behaviors: Teacher management (proactive, approval, OTRs, reactive, disapprovals); Student behavior (disruptions, non-compliance, aggression)

  - Global, Likert scales about teacher and student behavior

- *Office discipline referrals* (ODRs) collected annually in SWIS from the district, disaggregated by student race

- *Teacher self-report survey* perceived efficacy for cultural responsivity and behavior management, and stress

Aims 3 – Time Efficiency

- *Coach logs* of time spent in coaching activities

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Outcome Analyses

Hierarchical Linear Models

- HLM 7 Software (Raudenbush et al., 2013)

- Three Levels:

  - 1. Three timepoints (pre-, post-, one-year follow-up)

  - 2. Teachers

  - 3. Schools

- Non-linear change across time points

- Differences allowed in control group changes over time between study arms

Combined Effects Model

- Intervention condition as predictor of change between time points

  - Separate effect estimates by post-test, follow-up

  - Combined/average effect (study arms combined)

Differential Effects Model

- Study arm as predictor of intervention effects (separately by time point)

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Findings – Combined Effects

- At post-test, coaching was largely found to be beneficial compared to no coaching:
  - Better behavior management ($\Delta = 0.29$, $p < .001$)
  - 47% fewer instances of student non-cooperation (95% CI: 0.31, 0.88)
  - 33% more uses of teacher approvals (95% CI: 1.04,1.70)
  - But also, 82% more disapprovals (95% CI: 1.00, 3.32)
- Marginally significant, desirable effects for:
  - Teacher Anticipation and Responsiveness ($\Delta = .18$, $p < .10$)
  - Student Socially Disruptive Behaviors ($\Delta = -.10$, $p < .10$)
- Effects not sustained at one-year follow-up

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Findings – Differential Effects

- Consistent, but non-significant, advantage of traditional over paired coaching

- Paired coaching did not yield positive significant effects
  - E.g., one-on-one coaching significantly increased student cooperation (Δ = .43, p < .05) and decreased student disruptive behaviors (Δ = -.40, p < .01); the effect of paired coaching was not significant for either outcome

- Undesirable effect observed at one-year follow-up:
  - 2.7 times *more* student non-compliance (95% CI: (1.73, 4.29)) in classrooms of paired-coached teachers, as compared to their comparison (un-coached) group

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Relative Efficiency

- Time calculations:
  - Coach time with teachers = sum of total one-on-one time spent between coaches and teachers
  - Teacher time = sum of total one-on-one coaching time with total paired-coaching time
- Relative to one-on-one coaching, paired coaching
  - Saved a statistically significant of coaches' time: 446.9 versus 522.3 minutes (diff= 75.4 minutes, $p < .01$)
  - Did not save a significant amount of teachers' time (22.0 minute difference, n.s., $p = .49$)

Summary of Findings

- Double Check coaching conducted with one teacher improves teachers' classroom management practices and student classroom behavior; paired coaching appears less effective

- In the absence of coaching in a follow-up year, effects are not sustained

- The coaching is efficient in both models; coach time is saved by paired coaching model (15% time savings)

Conclusions

- There is very limited research on coaching with more than one teacher

- Similar to the peer coaching literature for other interventions, there is limited promise for this paired approach

- Other means for achieving feasibility and sustainability for school-based coaching models are needed

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