

A Randomized Trial Testing the GBG+MTP Program with Early Career Teachers: Effects on Students

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Background/Context: Early career teachers often begin teaching with limited training on classroom behavior management (Kaine et al., 2006). This is problematic, given the importance of effective classroom behavior management for student learning, and the substantial evidence that child disruptive behavior in early elementary school is predictive of later behavioral and mental health problems and lower educational and occupational attainment (Dubow et al., 2009). Moreover, past research demonstrates the potential of teacher training in classroom management to show positive effects on a range of student outcomes (Bradshaw et al., 2009; Ialongo et al., 2006). The present study tested whether an established classroom management strategy called the Good Behavior Game (GBG), when integrated with the tailored coaching and supports provided through another established program, My Teaching Partner (MTP), helped novice teachers foster better behavioral and achievement outcomes among their students.

Purpose/Objective/Research Question: The present study tested the combined impact of two integrated evidence-based programs (GBG + MTP) on novice teachers and their students, using a randomized controlled trial design. In particular, we examined the effects of the integrated intervention on three observed student behavioral outcomes and two achievement outcomes. Given that impacts of these and other such preventive interventions is rarely consistent across all settings, students, and baseline conditions (e.g., Bradshaw, Waasdorp, & Leaf, 2015; Ialongo et al., 1999; Kellam et al., 1994), we additionally explored whether program effects varied by baseline levels of teacher distress and student disruptive behavior in the classroom.

Participants & Setting: Participants included 188 new K-3 teachers (i.e., those within 3 years of entering teaching) from 72 urban schools across three school systems in the northeastern United States, randomly assigned to either the control or the combined intervention (GBG + MTP) condition. The majority of teachers were female (94%) and White (76%), and 23% had a master's degree. Approximately 61.6% of students were Black, 17.3% were Latinx, and 11.0% were White; 51% of students were female and 52% received free or reduced price lunch.

Intervention/Program/Practice: The two programs integrated in this trial were the *Good Behavior Game* (GBG; Kellam et al., 1994), a group contingency classroom behavior management program, and *MyTeachingPartner* (MTP; Pianta et al., 2002), a system of professional development supports (e.g., in-person and web-facilitated coaching) focused on improving teacher-student interactions and in turn, student engagement and learning. Specifically, the intervention provided training on behavior management (from the GBG) to new early elementary school teachers, and leveraged coaching and supports using the MTP

model. The initial training consisted of a 2-day workshop, and was followed by biweekly coaching sessions throughout the school year to support fidelity of implementation.

Research Design: The present study used a teacher-based group-randomized trial (GRT; Murray et al., 2004) of students grouped by teacher to evaluate the combined impacts of the GBG and MTP on student achievement and behavior. Consistent with the GRT design, teachers were randomly assigned to either receive training and coaching in the combined GBG+MTP intervention, or to serve as controls (business as usual). The current study focused on program effects on the students in the participating teachers' classrooms during the implementation year of training and follow-up coaching. Specifically, we examined intervention effects on end of year 1 post-test scores collected in the spring following a single year of coaching supports, relative to control teachers, after accounting for corresponding baseline scores and teacher and student demographic characteristics.

Data Collection and Analysis: Pre-test assessments of teacher experience and *distress about teaching* (Maslach, Jackson, & Leiter, 1996; National Institute for Occupational Safety and Health, 1999) were collected at the outset of regular district training prior to random assignment. Observations of *students' socially disruptive behavior, off-task behavior, and compliance* (as measured by the ASSIST; Rusby, Crowley, Sprague, & Biglan, 2011; Rusby, Taylor, & Milchak, 2001) as well as tests of *reading and math achievement* (Woodcock, McGrew & Mather, 2001) were conducted in the fall semester, as close to the opening of school as possible. Post-test assessments of these constructs were obtained shortly before the end of the school year. Demographic data were collected from archival records maintained by the school. Intent-to-treat, linear regression analyses tested impacts of GBG+MTP on classroom-level means on the five student outcomes at post-test. All models controlled for corresponding pre-test (baseline) scores, and teacher and student demographics.

Findings/Results: Across all five student outcomes, there was a pattern of statistically significant effects (in one case, a marginally significant effect) of the 3-way interaction of intervention condition with baseline teacher distress and baseline classroom socially disruptive behavior. Specifically, the three-way interaction of intervention condition, baseline teacher distress, and baseline student socially disruptive behavior significantly predicted relative pre- to post-test growth in student socially disruptive behavior ($B = -.57, p < .001$), off-task behavior ($B = -.38, p = .026$), compliance ($B = .34, p = .016$), and math achievement ($B = .09, p = .049$), and marginally significantly predicted relative growth in reading achievement ($B = .09, p = .052$). Further exploration of these 3-way interactions suggested that, across outcomes, GBG+MTP generally had a protective effect in the "highest risk" classrooms, helping highly distressed teachers facing highly disruptive classrooms to improve behavior and achievement (or avoid worsening behavior) more than their counterparts in control classrooms.

Conclusions: These findings suggested a positive impact of GBG+MTP on novice teachers' students, with the effects strongest for those in more challenging classrooms. Specifically, the results suggested that the intervention may have a protective effect among highly

distressed teachers entering highly disruptive classrooms. Implications of these findings for future research will be discussed.

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