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Increasing teacher treatment integrity of behavior support plans through consultation and Implementation Planning ☆,☆☆

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ABSTRACT

School psychologists commonly provide intervention services to children through consultation with teachers. Data suggest, however, that many teacher consultees struggle to implement these interventions. There are relatively few evidence-based strategies for promoting teacher consultees' intervention implementation. The purpose of this study was to evaluate Implementation Planning as a strategy for increasing the adherence and quality with which teacher consultees implemented behavior support plans. Implementation Planning involves adapting intervention steps to the implementation context, providing detailed logistical planning, as well as identifying implementation barriers and developing strategies to address them. Results indicated that teachers' implementation adherence levels increased and quality levels increased with corresponding decreases in variability, compared to standard behavioral consultation. Implications for future research on treatment integrity are discussed.

1. Introduction

Consultation between general education teachers and school psychologists or other specialists is a common approach for providing psychoeducational services to children (Kratochwill, 2008). There are numerous models of consultation, including, for example, mental health consultation (Caplan, 1970), behavioral or problem-solving consultation (Kratochwill, 2008; Kratochwill and Bergan, 1990), and problem-solving conjoint behavioral consultation (Sheridan and Kratochwill, 2010). Although differences exist across consultation models, they all focus on indirect service delivery through a triadic relationship among a consultant, consultee, and client; a consultant (e.g., school psychologist, special educator) interacts with a consultee (e.g., teacher, parent) in the development of an intervention to improve outcomes for a client (i.e., student). The consultee is responsible for implementing the intervention, with support from the consultant or team, as needed. This indirect service delivery method is widely held as a practical and efficient method of intervention delivery (Kratochwill, 2008). Further, consultation is increasingly considered a critical component in the multi-tiered systems of support that are rapidly being adopted as frameworks for delivering academic and behavioral intervention services in schools (Knotek, 2007; National Association of State Directors of Special Education, 2008).

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There is a rich history of research on the effectiveness of consultation models in education that generally supports the efficacy of this intervention delivery approach (e.g., Reddy, Barboza-Whitehead, Files, and Rubel, 2000; Sheridan, Welch, and Orme, 1996). A primary assumption of consultation approaches has been that consultees will implement the developed interventions as planned (Noell, 2008; Noell and Witt, 1996). Research over the past two decades, however, suggests that many consultees struggle to maintain adequate levels of treatment integrity (also referred to as intervention Plan Implementation, Noell, 2010; Noell et al., 2005; Noell, Witt, Gilbertson, Ranier, and Freeland, 1997). More specifically, research results suggest that most teacher consultees do not implement classroom-based interventions with adequate adherence (i.e., extent to which intervention components are implemented as planned) for more than 10 days in the absence of systematic consultative support. Similar results have been replicated across (a) public (Noell et al., 1997, 2005) and private schools (Codding, Feinberg, Dunn, and Pace, 2005; DiGennaro, Martens, and Kleinmann, 2007), (b) academic (Gilberston, Witt, Singletary, and VanDerHeyden, 2007; Sanetti and Kratochwill, 2009) and behavioral (DiGennaro et al., 2007; Sanetti, Luiselli, and Handler, 2007) interventions, and (c) individual student (Gilberston et al., 2007; Noell et al., 2000) and whole-class (Sanetti, Fallon & Collier-Meek, 2013; Sanetti and Kratochwill, 2011) interventions. These findings are highly concerning as research also suggests that lower levels of treatment adherence are associated with poorer student outcomes (Biggs, Vernberg, Twemlow, Fonagy, and Dill, 2008; Wilder, Atwell, and Wine, 2006). Further, a rapidly growing literature base suggests that lower levels of implementation quality (i.e., qualitative aspects of implementation such as enthusiasm and fluency; also referred to as competence) are also associated with poorer student outcomes (Goncy, Sutherland, Farrell, Sullivan, and Doyle, 2014; Sanetti and Fallon, 2011; Sutherland, McLeod, Conroy, Abrams, and Smith, 2013).

These results make clear that consultants must actively attend to consultees' level of treatment integrity. Best practices in consultation are that consultants will "use a variety of procedures to facilitate Plan Implementation that are compatible with resources and responsibilities in the school setting" (Kratochwill, 2008, p. 1681). Over the past two decades, there has been increased attention to identifying and evaluating procedures to support consultees' intervention implementation. There is initial evidence supporting the effectiveness of (a) collaborative consultation, in which the teacher and consultant share responsibility for development of the treatment integrity assessment plan (Kelleher, Riley-Tillman, and Power, 2008); (b) teacher intervention choice, in which teachers are provided multiple interventions by a consultant (Dart, Cook, Collins, Gresham, and Chenier, 2012; Johnson et al., 2013); and (c) video modeling, in which implementers viewed a video of an experienced teacher implementing the intervention (DiGennaro Reed, Codding, Catonia, and McGuire, 2010). Further, research has been conducted within consultation and coaching models to evaluate the effect of varied intervention-training strategies on teachers' implementation of specific interventions and curricula. These strategies include consultation meetings or professional development sessions with (a) in-vivo training (Fabiano et al., 2013), (b) direct training (Sterling-Turner, Watson, and Moore, 2002), (c) ongoing coaching (Kretlow, Cooke, and Wood, 2012), (d) online modules and in-person meetings (Motoca et al., 2014), or (e) booster training (Miller, Crosland, and Clark, 2014). The findings regarding these strategies are promising; however, additional evaluations are necessary.

Researchers have evaluated the effectiveness of performance feedback as a strategy to increase treatment integrity within consultation (Noell, 2010). Results of a recent systematic review suggest performance feedback can be considered an evidence-based intervention according to the What Works Clearinghouse (WWC) *Single-Case Design Pilot Standards* (hereafter referred to as WWC *Standards;* Fallon, Collier-Meek, Maggin, and Sanetti, 2015; Kratochwill et al., 2010). Despite this conclusion, the performance feedback literature is diverse and includes variants that include additional embedded components (e.g., goal setting, self-monitoring, reinforcement) and delivery at different frequencies (e.g., daily, weekly, as needed; Fallon et al., 2015). Data from the Fallon et al. (2015) review indicate that performance feedback was delivered daily in 27.6%, two to four times per week in 17.2%, weekly in 20.7%, monthly in 3.4%, and "as needed" in 6.9% of reviewed studies. Based on these data, it is clear that a vast majority of performance feedback studies involve its delivery on an ongoing basis, with performance feedback delivered at least weekly (65.5%; Fallon et al., 2015). Although some studies have evaluated fading performance feedback (e.g., Codding and Smyth, 2008) or delivering it on an as-needed basis (e.g., Sanetti et al., 2013a), the frequent and ongoing nature of the majority of the performance feedback literature raises questions about feasibility for use across the numerous classroom-based interventions implemented in a school at any point in time. Indeed, the results of several studies that have evaluated the feasibility of a school-based consultant conducting performance feedback indicate it can be challenging to deliver this implementation support regularly (see Sanetti, Chafouleas, Fallon, and Jaffrey, 2014; Sanetti, Fallon, et al., 2013). Currently, there are no data available to suggest how frequently any intervention implementation support strategies are implemented in school-based practice.

Identification and evaluation of these procedures to support consultees' intervention implementation are important advances toward developing a science of implementation support within consultation. Given the considerable demands on both implementers and consultants, it is essential that implementation support strategies are both evidence-based and feasible. Other human service fields (e.g., medicine, health psychology) have a much longer history of attending to implementation support and thus, their literature base is considerably more sophisticated with regard to how to efficiently and effectively support intervention implementation (Bosworth, Oddone, and Weinberger, 2012; Sanetti, 2013). The extensiveness of research in these areas is evidenced by the existence of hundreds of books on medical adherence and adult behavior change (interested readers should see Bosworth et al., 2012; Falvo, 2010; Reickert, Ockene, and Pbert, 2013).

Attending to this rich literature on adherence and adult behavior change has the potential to increase the pace of development of feasible intervention implementation support strategies in education and psychology. For example, a number of adult behavior change models have been suggested as having applicability within education (for reviews see Evidence-Based Intervention Work Group, 2005; Long and Maynard, 2014). After a careful examination of the available theories and empirical support, we chose to adapt the Health Action Process Approach (HAPA; Schwarzer, 2008) for use in school-based consultation.