

1. Background. Give a brief overview of the research project. Specify if it is a new research proposal or involves secondary data analysis.

The goal of this study is to examine how parents' inhibitory control might boost or lessen benefit from a military parenting program. Large numbers of National Guard and Reserve (NG/R) personnel were deployed to Iraq and Afghanistan (Polusny et al., 2014), and service members' deployments place great demands on their families (Cozza, Chun, & Polo, 2005). Children in military families in which a parent has been deployed may be at increased risk of depression, anxiety and externalizing behavior problems (Chartrand, Frank, White, & Shope, 2008). After Deployment, Adaptive Parenting Tools (ADAPT; PI: Abigail Gewirtz) is a parent training program tailored to the specific needs of military families whose goal is to enhance effective parenting practices, thus reducing children's adjustment problems (Gewirtz, & Davis, 2014). This group-based preventive intervention is designed to target six core parenting practices: positive involvement, skill encouragement, problem solving, monitoring, discipline, and emotion socialization (Gewirtz, Pinna, Hanson, & Dustin, 2014).

Effective parenting calls for parents' cognitive skills, including patience, attention, planning, and problem solving (Mokrova, O'Brien, Calkins, & Keane, 2010). Parental executive function, which includes regulation of attention, inhibitory control and working memory (Friedman et al., 2008), has been shown to promote effective parenting and minimize harsh parenting in the context of challenging child behaviors (Deater-Deckard, Wang, Chen, & Bell, 2012). Inhibitory control (IC), which is the cognitive process of restraining or shifting automatic responses to maintain goal-directed behaviors (Aupperle et al., 2012), may be particularly relevant for parenting in military families. Parents high in IC, for example, may stay calm and respond to children's emotional needs when their children are overwhelmed with temper tantrums.

Research has demonstrated that family relationships, especially parenting, may be compromised for individuals suffering from combat-related posttraumatic stress disorder (PTSD) and associated problems, due to difficulties in emotion regulation (Gewirtz, & Davis, 2014; Snyder et al., 2016). Studies have shown that decreased inhibitory function is related to PTSD symptom severity (Falconer et al., 2008), and the ability to disengage from even highly-valued stimuli could serve as a protective factor for preventing the development and maintenance of PTSD (Aupperle et al., 2012). Conversely, Monn et al. (in preparation) found that low levels of inhibitory control may disrupt the dose-response relationship of traumatic stressors to PTSD such that these individuals are vulnerable to PTSD regardless of combat related exposure. Deficits in inhibitory control are also related to ineffective emotion regulation, which is displayed as experiential avoidance and hyper-arousal in people with combat-related PTSD symptoms (Joormann, 2010). People with difficulties in inhibitory control tend to be unable to disengage from or

inhibit their responses to trauma-related stimuli, resulting in higher rates of re-experiencing and subsequent increased reliance on avoidant coping techniques (Aupperle et al., 2012).

Inhibitory control may help parents in military families disengage from traumatic experiences and focus on effective parenting. Deficit in IC, for example, parents' Attention-Deficit/Hyperactivity Disorder (ADHD) symptoms, are associated with inconsistent discipline, low involvement and a low level of supportive responses to children's negative emotions (Mokrova, O'Brien, Calkins, & Keane, 2010). However, little research has examined how parents' inhibitory control might boost or lessen benefit from a military parenting program. The current study aims to investigate the role of IC as a moderator in the effectiveness of a parenting program for military families on parenting practices at 12 months post-baseline. This study will use secondary data from the ADAPT project, particularly, the baseline and 12-month follow-up. Parents' inhibitory control was measured using a computer administered "Go-No Go task" at baseline. Observational data using validated Family Interaction Tasks (approximately 60 minutes of structured parent-child interactions) were used to measure parenting practices.

2. Explain how the project contributes to the body of knowledge on translational research in the use evidence-based prevention interventions.

The current study pays attention to parents' individual characteristics that may affect the response to parenting intervention. We hypothesize that parents who possess higher preexisting levels of executive skills, when accompanied by intervention, facilitate the enhancement of parenting to greater extent than for parents with executive deficits. By identifying moderators of intervention studies, it will be possible to tailor interventions according to the unique needs and characteristics of each individual, and maximize the effectiveness of the intervention.

3. Describe the anticipated outcome of the project (e.g. article, conference presentation, grant application).

I anticipate that the project could be presented in Society of Prevention Research annual conference in 2018. My master's thesis would also be based on this project and I would conduct a literature review to support the findings. I anticipate a first-author manuscript could be completed by May 2018, and would like to submit it to *Prevention Science*.

4. Describe the mentoring relationship that will take place between you and your ITR faculty project advisor endorsing this proposal. If the advisor is not an ITR faculty member, please state the qualifications of the advisor to supervise translational/prevention-related research.

Dr. Abigail Gewirtz, the director of the Institute for Translational Research in Children's Mental Health (ITR), will mentor me to complete the project. We have been working together for almost one year. We meet every week to talk about my research questions and latest research findings. She has given me a lot of helpful suggestions on data analysis, literature review and academic writing. I got the opportunity to get exposed to the ADAPT project when working with her, and I started to be interested in prevention and intervention studies and wanted to do my master's thesis based on the secondary data of ADAPT. We will meet weekly during the summer break and exchange emails to update my progress on this project.