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Outlining an Emotion Socialization Parenting Program to Treat Emotion Regulation Deficiencies in Children with ADHD

By: Kaelyn Barker

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Abstract

Theory and research advocate that parent's reactions to children's emotions, such as their emotion socialization toward their children, perform a crucial role in coaching children's competent emotion regulation (ER) skills. However, there are few studies that have openly researched the role that parent socialization of emotion performs in the growth of ER in youth with attention-deficit/hyperactivity disorder (ADHD), which is a disorder typically noted for poor ER skills. Thus, potential intervention to improve parental emotion socialization could have significant implications for this population, as ADHD is considered one of the most prevalent childhood psychiatric disorders, prevalence rates of up to 7% worldwide (Polanczy, Willcutt, Salum, Kieling, & Rohde, 2014; Willcutt, 2012; Graziano, Garcia, 2016). It is imperative a responsive intervention program is implemented. The present study will be the first to outline an experiment to examine whether parental emotion socialization can be influenced to increase ER skills in this population. The experiment population will include age 4-6-year-olds with moderate to high ADHD symptoms. A seven-week program will be outlined for the parents of the children. These sessions will be based on a previous program called Tuning In to Kids, TIK (Havighurst & Harley, 2007). Potential results will be explained along with implications for these results.

Introduction

Attention-deficit/hyperactivity disorder (ADHD) is a disorder that affects a variety of ages and domains of function. In recent research, there has been an emphasis on emotion dysregulation (ED) as a prominent aspect of ADHD, which has been noted as an important

contributor to the functional impairment experienced by those who have this disorder (Barkley & Fischer, 2010; Bunford, Evans, & Wymbs, 2015; Nigg, Blaskey, Stawicki, & Sachek, 2004; Shaw, Stringaris, Nigg, & Leibenluft, 2014; Graziano, Garcia, 2016). ED is an individual's lack of ability to utilize part or in whole the modulatory processes that are needed in emotion regulation (Bunford, Evans, & Wymbs, 2015). An example for ED is a child that gets too excited about having birthday cake at a party. The child gets up from his assigned seat and paces back and forth because they cannot modulate their excitement for being able to eat birthday cake. Emotion Regulation (ER) connects the commencement (in this example, the child's excitement over getting to eat birthday cake), formulation (the child starts to feel overwhelmed with this excitement), and execution of feelings (the child cannot modulate the effects of this excitement causing them to pace around) to a modulatory process, which would not be available to someone that has a disorder with symptoms of ED (Eisenberg & Spinrad, 2004; Breaux, McQuade, et al., 2017). The lack of attention displayed by individuals with this disorder may also impact the modulatory process. Children lacking in attention may not be able to focus on something else that may calm them down. It also may prove difficult for them to concentrate on a caregiver trying to calm them down. Thus, lack of attention makes it difficult to concentrate on things that might help reinforce modulatory processes. Siblings are cleaning their shared room. David calls to his mom saying that Russell is not helping him clean. Russell, who has a diagnosis of ADHD, is getting distracted by the toys that he is picking up and starts to play with them instead of cleaning. The mother calls to Russell in stating, "Russell help your brother clean!" Russell exclaims to his mother that he is cleaning. David argues that he is not. The siblings start fighting over this difference in opinion, and the mother intervenes by sending both kids to timeout.

Attention can influence a child's social interaction with their parents, and the parenting relationship can suffer. With this in mind, ADHD is frequently correlated with more severe and less affirmative parenting environments (Deater-Deckard, 2017). This may take place in the amount and type of support a parent provides to their children. Parental figures can respond in supportive or non-supportive ways to their children's negative emotions. Examples of supportive actions might include showing affection to comfort the child or talking to the child about modulating emotions as opposed to avoiding contact with the child or dismiss the child's negative emotions, which the latter would be considered non-supportive (Eisenberg, Cumberland, & Spinard, 1998). Supportive parenting is a way for parents to provide their children with emotion socialization. The theory states that supportive reactions to youth's negative emotions help to improve their empathic and prosocial growth, which result in youth having feelings and behaviors that are modulated and positive towards their goals (Breaux, McQuade, Harvey, & Zakarian, 2017). Parents are thought to present a crucial role in the growth of youth's ER through this process of emotion socialization (e.g. Cole et al., 2009; Hersh & Hussong, 2009). However, social-emotional learning programs are primarily given to youth 5 years and older. This misses the crucial growth opportunity of preschool years when parents have the largest impact on youth's emotional learning as suggested by Wilson, Havighurst, and Harley (2012). The skills for emotional competence grow exponentially along with language, cognition, and experience. These factors intertwine in a child's preschool years, and it proves the most beneficial to intervene with these skills during this time. This led to the young age of the population presented for this study.

Previous studies have researched the effectiveness of parent training on preschool-aged children with prominent ADHD symptoms (Huang, Chao, Tu, & Yang, 2003; Kern et al., 2007; Matos, Bauermeister, & Bernal, 2009; Sonuga-Barke, et. al., 2001; Strayhorn & Weidman, 1989; Webster-Stratton, Reid, & Beauchaine, 2011). One study focused on presenting a parent training model designed to teach parents emotion socialization skills along with education about ADHD and developing appropriate goals among parents for hyperactive behavior. The program taught strategies for managing hyperactive and disruptive behavior along with emotion socialization skills. The researchers sought to adjust parenting techniques to the individual needs of preschoolers with ADHD. Results of the study demonstrated that the program was successful in reducing both ADHD and oppositional defiant disorder (ODD) symptoms, which often co-occurs with ADHD (at a rate of 30-50% in children; Biederman et al., 1991; Bunford, Evans, & Wymbs, 2015), symptoms along with improvements in parents' emotion socialization skills. ODD is a disorder that involves reoccurring behavioral problems involving anger or irritability for children. They typically show very defiant behavior toward authority figures. However, the study's focus on training parents in both emotion socialization skills and training parents in general parenting skills may have uniquely contributed to these results. Thus, it is not clear to what degree either contributed to the positive results (Herbert, et. al., 2013). However, other research suggests that emotional socialization can influence children's behavior. For example, a previous study developed a program to foster better emotion socialization in parents by teaching skills of emotion coaching. This program, the Tuning in to Kids program TIK, had success in reducing various behavior problems (Wilson, Havighurst, & Harley, 2012). However, the research did not focus on this specific population of children with ADHD. Future research is

necessary for addressing this gap in knowledge on the potential of treating children with ADHD by training parents' emotion socialization skills.

Present Study

The present study will address this gap by outlining a potential experiment for improving parents of children with ADHD's emotion socialization skills to examine how this training will impact their children's ER. The hypothesis for this potential study is that supportive parenting of negative emotions will increase, and the ADHD symptoms will decrease due to the change in parenting style with emphasis on ED symptoms of ADHD. Parents present a model for children to follow. Parents do this in the way they show emotions, how they react to their children's emotions, and how they help their children to learn about responses to high emotions (Eisenberg, Cumberland, & Spaniard, 1998). When these aspects are modeled well, children obtain a higher sense of ER (Wilson, Havighurst, & Harley, 2012). With this evidence in mind, the prevention program that might prove beneficial to this experiment is Tuning in to Kids: Emotionally Intelligent Parenting program (TIK; Havighurst & Harley, 2007). This program is specific to preschool children and teaches parents the skills of emotion coaching. An "emotion coaching" approach teaches parents to supportively respond to children's emotions, verbally labeling these emotions, respond using empathy, and help in teaching children to understand and regulate their emotions (Wilson, Havighurst, & Harley, 2012). TIK also has the added goal of improving the parent-child relationship. Because of these aspects of the TIK program, it seems like a promising treatment program for children with ADHD in increasing their ER capabilities. The program is theoretically based on analysis that has examined parent emotion socialization and the role it

plays in children's emotional capabilities (Gottman, Katz, & Hooven, 1997). The TIK program has been shown to be effective in previous research. The improvements to parenting around children's emotions were found during the study and at a six-month follow-up. The improvements were also found through different environments (home and preschool), as well as improvements in parents emotion socialization practices in a community setting with community facilitators of the program (Havighurst, Wilson, Harley, Prior, & Kehoe, 2010; Wilson, Havighurst, and Harley, 2012). For the Havighurst, Wilson, Harley, and Prior (2009) study, child behavior improved significantly even among those children considered with clinical levels of behavioral difficulties. Half of the clinical participants were no longer at clinical levels at the 10-week assessment. This points towards the TIK program's potential in working on children with ADHD. However, inattention might lead the changes in parenting style going unnoticed. This will prove to be a challenge in changing programs for this population.

Method

Design and Participants

The experiment will use a 2x2 design with an intervention group and a waitlist group. The participants will be parents of children diagnosed either through DSM-V ADHD standards or given a diagnosis by their doctor. These children will be at preschool ages 4 to 6. Although, this disorder is typically diagnosed in early school age, there is increasing evidence that symptoms frequently surface during these earlier years (Applegate et al., 1997). The Academy of Pediatrics (AAP) has increased the age range for diagnosing and treating ADHD down to age 4 (AAP, 2011). Flyers will have to be placed in different doctors offices and preschools to obtain

participants. The exclusion criteria for this experiment will include if the child is taking medication, co-morbidity with an autistic spectrum disorder, neurological conditions, or an IQ of less than 80.

Measures

The first lab visit will include surveys such as demographics both for a parent and child including age, SES, parental relationship status, and so on. Another survey will include a medication history and for the parent to validate the ADHD diagnosis. Given this information, if the participants qualify, then measures may be mailed or sent home to complete before the first session or mailed in if the participants were randomly assigned to the waitlist group. Among this paperwork sent to the parent would be the Emotion Regulation Checklist (ERC; Shields & Cicchetti, 1997). This is a 24-item measure that incorporates items describing processes key to emotionality and regulations. Parents will rate how characteristics of each item relates to their child (Herbert, et al. 2013). ERC scores have presented convergent validity, as well as emotion regulation subscales have presented good validity (Shields & Cicchetti, 1997). This is why ERC would be a great measure for this study.

Research has found that children with ADHD experience more difficulty in regulating their emotions during challenging and frustrating tasks (Melnick & Hinshaw, 2000; Walcott & Landau, 2004; Wheeler, Maedgen, & Carlson, 2000). The Coping with Children's Negative Emotion Scale (CCNES; Fabes et al., 1990) would be sent as well. It is a self-report scale that assesses parent coping in response to youths' negative emotions. The CCNES has 12 different hypothetical scenarios. These scenarios involve the child being upset or angry. In an example, a

scenario might be that their child got hurt and was upset. The parents would need to rate the likelihood of them responding to six different reactions each containing a 7 point Likert scale. These reactions can be categorized into either supportive or non-supportive emotion socialization practices. ER would also be measured by autonomic nervous system ANS reactivity measured during a pre and post-failure experience. Researchers argue that this reactivity during stress or challenge (induced by the failure experiences) is portrayed in physiological manifestations of emotion dysregulation (Murray-Close 2013; Porges 2001, 2003; Breauz, McQuade, Harvey, & Zakarian, 2017). This provides a lab test for measuring ER in the children. This failure experience would include a simple question posed by the research facilitator to the child. For every answer the preschooler gives (even potentially correct ones), it will be considered wrong. A home interview would also be conducted to see parent-child interactions in a routine setting.

Procedure

The procedure of the experiment will have a random assignment for participants to either the wait list or experimental group. The experimental group will undergo the prevention program. This program will include a 7-week program following the structure of the TIK program (Havighurst & Harley, 2007), but with more emphasis on emotion coaching for hyperactive emotions and ER as displayed in children with ADHD (TIK-ADHD). Parents will come in for a two-hour group session weekly. The first session will address ADHD symptoms with emphasis on ED and typical emotional outbursts for this disorder. The next sessions will focus on the five steps of emotion coaching (Gottman & DeClaire, 1997). These steps include awareness for children with ADHD's emotions, utilizing the display of emotion as a potential

teaching moment, discussing the perception as well as welcoming their children's emotions, giving their kids the tools for vocalizing the emotions in appropriate ways, and finally helping with problem-solving.

Once the program has finished, post measures will be conducted right after the program as well as at a check-up point within a year. These measures will include the ERC, CCNES, and a final home interview as in the before measures. Another failure experience will be conducted with monitoring the ANS reactivity. This one will have the child perform an impossible task of trying to form a certain shape using blocks, but one block will be missing. Classroom visits may also be done. Attendance will also have to be monitored between mothers and fathers. The results will be analyzed based on the extent of compliance by the parents. Should the parents miss more than three meetings, their data will not be included in the results.

Potential Results

The results for this study could provide some insight to treating emotion dysregulation in ADHD populations at an early age or could lead to further investigation into treatment techniques. Analysis of covariance (ANCOVA) will need to be conducted to compare the experimental group to the wait list group on the posttest measures. This measure has been shown to produce unbiased results. The home interview will be coded by a facilitator and compared from pre- to post-measures. ANS data from the two failure tasks can also be measured. The effectiveness of the randomization should also be evaluated using T-tests for independent means in comparing the waitlist group to the experimental group.

Positive results would include the experimental parent group reporting significant increases from pre-test measures to post-test measures in ERC and CCNES measures. This would support the TIK-ADHD program's effectiveness in training parents in emotion socialization skills, and its potential ability to help improve ER in their children with ADHD. The ANS measures from the failure tasks can also be taken into consideration. If the children have less reactivity in the post-failure task, then it also lends support for the effectiveness of this new program. However, significant results may not be shown. There may not be any statistical significance in the self-reports for the CCNES. This may be because the parents were not invested in the program, or the program was not effective in its training. Thus, no parental changes on emotion socialization were seen. The ERC may show no significant data even though CCNES shows increases on the parents' emotion socialization. Children with ADHD might prove to be uninfluenced by the difference in parenting technique, as symptoms may be strictly biological and cannot be fixed by a parenting change. The ANS measures for the failure experiment will also remain unchanged, or the waitlist group may show signs of improvement as well. Implications for both potentials will be discussed.

Discussion

The results for this study are defined by many self-reports. This presents a possible form of bias. Since there is not much research for this population, it was hard to find measures that were not self-reported. With further research, this might be improved on. The ANS measures as well as the home interview may help to provide more concrete data in current time

rather than all self-report. In the future, researching other measure criteria will prove greatly beneficial for later studies.

Implications

Results supporting the thesis would lead to further research. If the results keep maintaining significant statistical data, then the TIK-ADHD program could have a great impact on increasing ER skills in children with ADHD. If the program proves to be successful in a lab setting, then the next steps may include how community trials might work. Further data could also be researched in seeing results for the effectiveness in each parent or divorced parents. Does the training seem to be more effective with fathers, mothers, or both? Does it work better for certain types of ADHD or between boys with ADHD and girls with ADHD? Girls have been shown to experience more effective ER when compared with boys (Zlomke & Hahn, 2010). ER difficulties are prevalent across other psychiatric disorders as well (Aldao, Nolen-Hoeksema, & Schweitzer, 2010; Zlomke & Hahn, 2010). This program could be presented for other disorders to see the results as well. Thus, the initial results should prove helpful in deciding which direction to take next for parent training in the TIK-ADHD program.

Non-supportive results may be evidenced in showing non-statistically significant data for the self-reports in CCNES. This may point toward the lack of effectiveness in teaching the parents about emotion socialization, which would result in no change for ERC ratings. Should CCNES improve and ER stay the same, the emotion socialization did not have an effect on the children's ER. This could potentially relate to the neurobiological mechanisms that underly ED in children with ADHD (Shaw et al. 2014 for review). ER may be strongly influenced by

biological factors rather than behavioral factors like the parental training program. Thus, results would be insignificant for the ERC measures. The check-up meeting after the initial results may also be insignificant or even lower. This could mean that TIK-ADHD does not have long-term significant results. If data is insignificant for this study, then potentially changing the experimental population age may work out more favorably or adjusting the TIK-ADHD program. Many measures could change in order to improve results or provide evidence that ER is biologically based.

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