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Risk factors for attrition from an evidence-based parenting program: Findings from the Netherlands

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ABSTRACT

Parent management training programs for the treatment of childhood conduct problems are increasingly being transported from their country of origin to international settings. Family interactions, however, may be influenced by different cultural expectations and children's mental health problems may be addressed within different systems. Demonstrating reductions in symptoms within the new population is insufficient to support the wide-scale transport of a treatment model. Implementation outcomes such as the rates of treatment retention and factors related to treatment attrition must also be considered. We explored predictors of attrition in families from the Netherlands referred to the evidence-based parenting program Parent–Child Interaction Therapy (PCIT). Participants included 40 children with conduct problems (2–7 years; 68% boys) and their caregivers. Attrition (40%) was somewhat lower than findings with similar community samples in the US. Significant predictors of attrition were child age and maternal levels of internalizing symptoms. Low parental demandingness and high child compliance before start of treatment were related to early attrition within twelve treatment sessions. Meeting the needs of families at risk for attrition is an important goal for parent management training programs within and outside the US if families in need of services are to benefit from them.

1. Introduction

1.1. Background

Parent management training (PMT) programs are considered best practice interventions for the treatment of childhood conduct problems (Eyberg, Nelson, & Boggs, 2008; Kaminski, Valle, Filene, & Boyle, 2008). Based on social learning theory, the PMT approach teaches parents strategies to reduce children's disruptive behaviors and to increase prosocial behaviors using techniques such as modeling, shaping, and social reinforcement (Patterson, 2002). Robust evidence for the efficacy of these interventions has led to increasing dissemination within the US and internationally. With broader dissemination, however, has come an increasing need to assess the success of PMT programs in other settings and cultures.

To date, research on the implementation of PMT programs in countries outside of the ones in which they were developed is still sparse and has primarily focused on client outcomes (e.g., Leung, Tsang, Sin, & Choi, 2015; Posthumus, Raaijmakers, Maassen, van Engeland, & Matthys, 2012). A recent meta-analysis found that effect sizes for the reduction of childhood conduct problems remained similar when transporting evidence-based parenting interventions from one Western culture to another (Gardner, Montgomery, & Knerr, 2015). However, additional factors that might influence the long-term effectiveness and sustainability of programs in their new settings, such as rates of treatment retention and attrition, were not considered. Studies on the transport of PMT programs within the US indicate that when implemented within different populations from the one with which they were originally developed, attrition may be higher (Fernandez, Butler, & Eyberg, 2011; McWey, Holtrop, Wojciak, & Claridge, 2015) and satisfaction may be lower (e.g., Parra Cardona et al., 2012). Evidence of symptom reduction alone is therefore insufficient to define an intervention as effective and compatible within a new population. It is also necessary to investigate implementation outcomes such as treatment retention and the factors related to retention (Proctor et al., 2011).

1.2. Implementation outcomes of PMT programs across other cultures and countries

Few studies have examined the implementation outcomes of evidence-based PMT interventions across cultures. A review of 610 studies on the cross-cultural implementation of PMT programs found only two of those studies to systematically evaluate implementation

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(Baumann et al., 2015), making it impossible to draw firm conclusions about the success of these programs outside the culture or country in which they were originated. Although we do not yet know much about how treatment retention and factors related to retention may differ from a program's country of development to other countries, much evidence exists from within the US that demonstrates significant problems with treatment retention (i.e., high attrition) among PMT programs, particularly in everyday clinical practice, such as community mental health settings, with attrition rates as high as 75% (e.g., Lavigne et al., 2010; Lyon & Budd, 2010). These high rates of attrition not only limit the feasibility of implementing PMT within clinical and community populations, they can lead to negative outcomes for children and families. Although information about long-term outcomes for children who drop out of treatment is limited (Boggs et al., 2004), research on the long-term effects of untreated or insufficiently treated conduct problems in children shows that these children are at higher risk for the development of serious difficulties in broad areas of functioning, including difficulties in family, peer, school, and community interactions (Broidy et al., 2003). Thus, if a PMT program is to be successfully transported to another country, where family interactions may be influenced by different cultural expectations and children's mental health problems may be addressed within different systems, it is important to evaluate the level of treatment attrition and identify factors related to treatment retention within the new setting prior to wide-spread adoption.

1.3. Parent–Child Interaction Therapy

We explored factors related to treatment attrition in a sample of families participating in the evidence-based PMT program Parent–Child Interaction Therapy (PCIT; Eyberg & Funderburk, 2011; Niec, Gering, & Abbenante, 2011; Zisser & Eyberg, 2010). PCIT was developed to treat the families of children two to seven-years-of-age with serious conduct problems. In two phases of treatment, parents are coached by therapists via an in-ear microphone while playing with their child. In the first phase of treatment, Child-Directed Interaction (CDI), parents are taught child-centered interaction skills to enhance their relationships with their children. During the second phase of treatment, Parent-Directed Interaction (PDI), parents learn healthy, effective discipline strategies. In PCIT, successful treatment completion is clearly defined. Parents who successfully complete PCIT have reached mastery of a defined skill set (e.g., child-centered interaction skills, effective discipline skills) in both phases of treatment, children's conduct problems are reported within the normal range, and parents express confidence in their ability to manage their children's behaviors (Eyberg & Funderburk, 2011). These assessment-driven criteria mean that PCIT is not time-limited and treatment completion equals treatment success. Attrition, thus, is defined as the decision by parents to discontinue the intervention prior to meeting criteria for completion (Wierzbicki & Pekarik, 1993).

PCIT has demonstrated efficacy in reducing childhood conduct problems, enhancing parenting skills, and reducing parental stress and child abuse potential (Cooley, Veldorale-Griffin, Petren, & Mullis, 2014; Thomas & Zimmer-Gembeck, 2007, 2012). The accumulating evidence has led to an increasing implementation worldwide, where PCIT has demonstrated effectiveness among different cultures and countries. For example, in the US, PCIT has been found to be efficacious with Mexican-American families (McCabe, Yeh, Lau, & Argote, 2012) and with families from primarily ethnic minority backgrounds seen in an urban community clinic (Danko, Garbacz, & Budd, 2016). International implementations show evidence of efficacy across countries. PCIT has been successfully transported to Australia (Nixon, Sweeney, Erickson, & Touyz, 2004), China (Leung et al., 2015), Taiwan (Chen & Fortson, 2015), Puerto Rico (Matos, Bauermeister, & Bernal, 2009), Germany (Schimek, Walter, Bussing, & Briegel, 2014), and the Netherlands (Abrahamse, Junger, Van Wouwe, Boer & Lindauer, 2015).

1.4. Attrition in PCIT

Although the efficacy of PCIT has been established among families who complete treatment, as with other PMT programs, high attrition in US samples remains a concern. For instance, Pearl et al. (2012) found that most of the families (67%) receiving PCIT in a community setting were not able to complete both phases of treatment. A pilot evaluation of PCIT in an urban community found an attrition rate of 75% (Lyon & Budd, 2010). Among African American families, the attrition rate was as high as 56% (Fernandez et al., 2011). The attrition rates in these effectiveness studies, with families seeking treatment in community mental health center settings, are often higher than attrition rates reported from the primarily university-based investigations (18%–35%; Thomas & Zimmer-Gembeck, 2007), but even in the university clinic settings, more than a third of families presenting in need of services may not receive the full treatment. Not all studies of PCIT outside of the US report attrition rates. Those that do report rates range from 22% to 28% in Chinese, Taiwanese, and Dutch samples (Abrahamse et al., 2012; Chen & Fortson, 2015; Leung et al., 2015).

While attrition from PCIT in US community settings is consistently high, findings regarding the risk factors for attrition are mixed. Among US families, those with cumulative risk factors appear more likely to drop out than others, but inconsistent results exist regarding the individual factors that are the most predictive. For example, while family structure, minority status, and socioeconomic status have predicted attrition in some families (Bagner & Graziano, 2012; Fernandez et al., 2011), other findings have not supported the predictive value of demographic factors or child factors for attrition in PCIT (Werba, Eyberg, Boggs, & Algina, 2006). These findings instead suggest that parenting stress and parents' verbal criticisms to their children are associated with dropout. Recently, a Taiwanese sample found both maladaptive caregivers characteristics and demographic family factors including single parents and lower education level as predictors for treatment attrition (Chen & Fortson, 2015). In addition, therapist behaviors such as interview style and coaching techniques used during early treatment sessions have also been found to predict attrition in PCIT (Barnett et al., 2015; Harwood & Eyberg, 2004).

Cultural factors may play a role. Inconsistent findings regarding the risk factors for treatment attrition from PCIT and the widely varying attrition rates across samples suggest that the barriers for treatment success are at least in part specific to a population and the context in which the intervention is delivered, emphasizing the importance of investigating attrition rates when PCIT is transported to a new country. The investigations of attrition factors reported above included primarily US families; thus, much remains to be done to better understand factors impacting the implementation of PCIT outside the US.

1.5. Purpose of this study

As part of an evaluation of the dissemination of PCIT from the US to the Netherlands, we examined predictors of treatment attrition from PCIT in a sample of Dutch families. Delivery of the intervention in the Netherlands occurred within a community mental health center serving a primarily high-risk population of families (e.g., low socioeconomic status, high incidence of child maltreatment). Utilization of the mental health care services in the Netherlands is largely independent from financial constraints, because all Dutch children are covered by private health insurance. However, a recent study among children receiving psychotherapy in the Dutch child mental health care revealed substantial rates of dropout (23%; De Haan, Boon, Vermeiren, Hoeve, & De Jong, 2015). This study found similar risk factors (e.g., ethnic background and high levels of externalizing problems) for premature treatment termination and referral to other services as the international literature on treatment attrition. Although previous research revealed similar factors as predictors of attrition and the transportation PCIT was between two “Western” countries, differences between mental health