Title Registration for a Systematic Review:

Parent training programs for preventing and treating antisocial behavior in children and adolescents: A systematic review

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TITLE OF THE REVIEW

Parent Training Programs for Preventing and Treating Antisocial Behavior in Children and Adolescents: A Systematic Review

BACKGROUND

Despite major efforts in prevention and treatment over the last decades, antisocial behavior (ASB) in children and adolescents such as aggression, violence, delinquency, and crime is still a serious problem in probably all societies throughout the world. A great deal of developmental and clinical research has shown that ASB has multiple causes and can be explained only with complex developmental models integrating biological, psychological, and social risk and protective factors (Granic & Patterson, 2006). However, numerous empirical studies confirm that deficits in parenting behavior such as poor monitoring, parental hostility and disfunctional control are the most important risk factors for ASB in child and youth development (Hoeve et al., 2009; Rothbaum & Weisz, 1994). In addition, well-established developmental theories such as Patterson and coworkers’ theory on coercive interaction attributes a central role in explaining the early emergence of ASB in children and adolescents to parenting behavior and style (Patterson, Reid, & Dishion, 1992).

As a result, parent training programs (PTP) have become widely applied measures for preventing and treating ASB in children and adolescents over the past 40 years. PTP can be defined as standardized and structured interventions aiming to promote parenting skills such as parenting supervision, nonaggressive limit setting, positive reinforcement, emotional and social support, perceiving and adequately interpreting a child’s verbal and nonverbal communication, and delivering an age-appropriate promotion of a child’s development. Several brand-name programs relying on different theoretical approaches and varying in content and breadth (e.g., Triple P, Incredible Years, Parent Management Training, Parent-Child-Interaction Therapy; see Briesmeister & Schaeffer, 1998, and Kazdin, 2005, for reviews) have already been evaluated intensively within the past decades and are well-established in practice all over the world. However, there is still controversy regarding how far these programs can prevent ASB, which of these programs are most promising, what are the main moderators of outcomes, how methodological factors or biases such as conflict of interest moderate their effectiveness, and what are the relevant processes how PTP affect ASB (see Beelmann & Raabe, 2009; Sandler, Schoenfelder, Wolchik, & MacKinnon, 2011, for reviews).

Therefore, the purpose of this review is to systematically summarize the outcomes of PTP from a broad range of quantitative studies. Our review will include international research (i.e., it will not be restricted to English-language publications), all age groups (up to the age 18), preventive and clinical applications of PTP, all types of standardized PTP, and diverse outcomes (i.e., no restriction to ASB outcomes alone) by taking into account a broad range of
effect moderators (addressing the intervention, sample, quality of implementation, and research methods). A comprehensive review and meta-analysis should deliver better opportunities to fully analyze substantial and other important outcome moderators along with their interaction by simultaneously controlling for bias stemming from methodological factors, publication bias, or conflict of interest.

**OBJECTIVES**

The review will answer the following specific questions:

1. Based on a comprehensive review of published and unpublished international experimental studies (RCTs and high quality quasi-experimental studies), what is the overall effectiveness of PTP for preventing and treating ASB?

2. What are the effects on different outcome measures (e.g., parent- and family-related outcomes, outcomes on ASB, and outcomes on positive social cognitions and behavior)? How do different informants affect the outcomes (e.g., parent vs. teacher ratings)? What is the specific effectiveness on delinquency or crime outcomes?

3. What is the contribution of methodological moderators such as study design, different aspects of internal and external validity, or sample size? How do publication bias and conflict of interest affect the outcomes?

4. Could the results of PTP be compared internationally? What are the effects of internationally adapted or adopted programs?

5. What are the relevant moderators concerning the intervention characteristics (e.g., intensity, program type, brand name, type of trainer, etc.)?

6. How does the quality of implementation (e.g., measured by recruitment and attendance/termination rate, rating on the quality of cooperation) affect the outcomes of PTP?

7. What are relevant sample characteristics (e.g., universal vs. targeted vs. clinical samples; age, gender, etc.) that moderate the outcomes?

8. What are the long-term effects of PTP, especially on delinquency and crime outcomes?

9. What are the processes by which PTP affect ASB?

10. How can the results of PTP be evaluated compared to results of other systematic reviews in the field of prevention and treatment of ASB?
EXISTING REVIEWS

Although there are several reviews and meta-analyses on related topics, they all have either serious limitations or differ in scope from the planned review. Some reviews are outdated and therefore of limited value (e.g., Cedar & Levant, 1990; Sekretich & Dumas, 1996). Others are restricted to special brand-name programs (e.g., de Graaf, Speetjens, Smit, de Wolff, & Tavecchio, 2008a,b; Menting, Orobió de Castro, & Matthys, 2013; Nowak & Heinrichs, 2008; Sanders et al., 2014; Thomas & Zimmer-Gembeck, 2007; Wilson et al., 2012), special age groups (e.g., Barlow, Parsons, & Steward-Brown, 2005; Dretzke et al., 2009; Piquero, Farrington, Welsh, Tremblay, & Jennings, 2008, 2009), or to clinical interventions alone (Dretzke et al., 2005, 2009; Furlong et al., 2012; Maughan, Christiansen, Jenson, Olympia, & Clark, 2005; McCart, Priester, Davis, & Azen, 2006). Further reviews have integrated research on PTP together with other family-related interventions (Farrington & Welsh, 2003; Piquero et al., 2008, 2009; Weiss, Schmucker, & Lösel, in press), are restricted to specific settings and countries (e.g., see Knerr, Gardner, & Cluver, 2013, for PTP in low- and middle-income countries; Weiss, Schmucker, & Lösel, in press, for studies conducted in Germany), or only examined the influence of selected outcome moderators (e.g., Leijten, Raaijmakers, & Orobió de Casto, 2013; Lundahl, Tollefson, Risser, & Lovejoy, 2008; Lundahl, Risser, & Lovejoy, 2006; Reyno, & McGrath, 2006; Wyatt Kaminski, Valle, Filene, & Boyle, 2008).

There are also Campbell Systematic Reviews that have given partial consideration to evaluation research on PTP. For example, Piquero et al. (2008) reviewed early family/parent training programs on antisocial behavior and delinquency, but this review is restricted to children under the age of 5, to prevention studies only, to English-language publications, and to RCTs. Another Campbell Systematic Review (Barlow & Parsons, 2005) is limited to children under the age of 3 and its focus is on general emotional and behavioral adjustment rather than on ASB. A recent review by Furlong et al. (2012) is restricted to clinical applications of PTP and RCTs and summarizes the results of only 13 trials. Further Campbell Systematic Reviews (Barlow, Smailagic, Huband, Roloff, & Bennett, 2012; Coren, Hutchfield, Thomae, & Gustafsson, 2010; Zwi, Jones, Thorgaard, York, & Dennis, 2012) investigated different aims and target groups of PTP. No further systematic review on PTP is available at the Cochrane library.

Hence, the planned review will be the first comprehensive summary of all existing international evidence on PTP for preventing and treating ASB within the full age range of childhood and adolescence. This work will build on a preliminary (unpublished) review of PTP already summarizing 201 studies published up to 2006 (Beelmann, 2008). Besides extending the publication years up to 2014, this review will apply a more comprehensive coding system specially designed for a detailed analysis of methodological and implementation factors as well as of different sources of bias (publication bias, conflict of interest) that have been shown to be important moderators/mediators of program
effectiveness (e.g., Durlak & DuPre, 2008; Eisner & Humphreys, 2011; Lundahl et al., 2006; Renfro & McGrath, 2006).

**INTERVENTION**

The survey will integrate all studies on standardized (manualized) PTP with the main aim of promoting parenting behavior in order to prevent or treat ASB in children and adolescents. The program can have been conducted with different target persons (mothers, fathers, or both parents; foster parents) but with the explicit aim of preventing or treating antisocial behavior in their children.

The comparison condition will be untreated groups, including placebo, minimal treatment, unspecific, or treatment-as-usual conditions.

PTP with the primary focus on the prevention and treatment of other childhood and adolescent problems such as drug use or ADHD will be excluded. The review will also exclude interventions focusing primarily on the promotion of parent or family relationships (e.g., relationship education, family therapy) or studies testing combinations of PTP with other interventions (e.g., child training).

**POPULATION**

All type of samples will be included as long as the aim of the intervention was the prevention and treatment of ASB in children and adolescents up to the age of 18. There will be no restriction according to demographic factors, specific risk factors, or intervention settings.

**OUTCOMES**

The primary outcome category will be all variables assessing ASB in the broadest sense (i.e, data on aggression, violence, delinquency, crime, and other forms of antisocial behavior). Secondary outcomes will be all parent- and family-related outcomes (e.g., parenting competencies, parent–child interaction, etc.) along with positive social-cognitive and behavioral child and adolescent outcomes (e.g., problem-solving or prosocial behavior). For mediational analyses, it will be assumed that effects on ASB outcomes (and positive behavioral outcomes) are caused by effects on parent- and family-related outcomes. However, there are alternative models that will be studied in more detail (see Sandler et al., 2011).
STUDY DESIGNS

The review will consider published and unpublished studies with RCTs and quasi-experimental designs with at least two assessment points (pre–post) and two groups (intervention vs. control conditions). Design quality must reach at least Level 3 on the Maryland Scientific Method Scale (i.e., quasi-experimental design with comparable control condition, see Farrington, 2003). Comparability will be determined according to demographic factors and the pretest level of central outcome measures. Minimum sample size will be 10 for each experimental group.

REFERENCES


## REVIEW AUTHORS

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ROLES AND RESPONSIBILITIES

The lead review author (Prof. Andreas Beelmann) and his department team have many years of extensive experience in conducting systematic reviews and meta-analyses. He has published reviews on early childhood intervention, child skills training, child and adolescent psychotherapy, prevention programs in general, prejudice prevention, hypnosis, and the development of prejudice (Beelmann, 1996, 2006; Beelmann & Heinemann, 2014; Beelmann & Lösel, 2006; Beelmann, Pfingsten, & Lösel, 1994; Beelmann, Pforst, & Schmitt, 2014; Beelmann & Schneider, 2003; Lösel & Beelmann, 2003; Raabe & Beelmann, 2011; Sundell, Beelmann, Hasson, & von Thiele Schwarz, in press; Tevikow et al., 2013).

The lead review author also has much research experience with and numerous publications on the development and prevention/intervention of ASB in general (e.g., Beelmann & Raabe, 2007, 2009; Bliesener, Beelmann, & Stemmler, 2012) and parent training in particular (e.g., Beelmann, 2003; Stemmler, Beelmann, Jaursch, & Lösel, 2007; Stemmler et al., 2013). He was one of the main researchers in the Erlangen–Nuremberg Longitudinal-Experimental Study (see Lösel, Stemmler, Jaursch, & Beelmann, 2009) and developer of the EFFEKT-parent training program (Beelmann, 2007).

Prof. Eisner has conducted two large-scale randomized controlled trials, one of which included a parent training component (Eisner, & Meidert, 2011; Eisner, Nagin, Ribeaud, & Malti, 2011; Malti, Ribeaud, & Eisner, 2011, 2012). He has also made important contributions to the examination of bias related to conflict of interests in social science evaluation research (e.g., Eisner & Humphreys, 2011) and is currently conducting a systematic review and meta-analysis on the effectiveness of school-based programs aimed at reducing school suspensions (Valdebenito, Eisner, Farrington, Ttofi, & Sutherland (2015).

The roles and responsibilities will be as follows:

- **Content**: Andreas Beelmann, Manuel Eisner
- **Systematic review methods**: Andreas Beelmann, Manuel Eisner and department/project team
- **Statistical analysis**: Andreas Beelmann and department/project team
- **Information retrieval**: Andreas Beelmann and department/project team
FUNDING

There is no recent or planned financial support other than the requested funding from the Jacobs Foundation.

POTENTIAL CONFLICTS OF INTEREST

Both researcher involved have no financial interest in this review. The lead review author is the developer of EFFEKT PTP, a German-language non-for-profit program that has been evaluated within two primary studies relevant for the planned review (Beelmann, 2003; Lösel et al., 2009). He is also the author of a review of reviews on the prevention of ASB and author on several reviews on prevention measures (see Beelmann, & Raabe, 2009, for a review). Manual Eisner has been involved in primary studies relevant for the planned review (Eisner, & Meidert, 2011; Eisner et al., 2011; Malti et al., 2011, 2012) and has published several articles on conflict of interest in prevention research (e.g., Eisner, & Humphreys, 2011).

PRELIMINARY TIMEFRAME

- Date you plan to submit a draft protocol: 90 days after the title registration.
- Date you plan to submit a draft review: 12 months after the acceptance of the protocol.

AUTHOR DECLARATION

Authors’ responsibilities
By completing this form, you accept responsibility for preparing, maintaining, and updating the review in accordance with Campbell Collaboration policy. The Coordinating Group will provide as much support as possible to assist with the preparation of the review.

A draft protocol must be submitted to the Coordinating Group within one year of title acceptance. If drafts are not submitted before the agreed deadlines, or if we are unable to contact you for an extended period, the Coordinating Group has the right to de-register the title or transfer the title to alternative authors. The Coordinating Group also has the right to de-register or transfer the title if it does not meet the standards of the Coordinating Group and/or the Campbell Collaboration.

You accept responsibility for maintaining the review in light of new evidence, comments and criticisms, and other developments, and updating the review every five years, when substantial new evidence becomes available, or, if requested, transferring responsibility for maintaining the review to others as agreed with the Coordinating Group.
Publication in the Campbell Library

The support of the Coordinating Group in preparing your review is conditional upon your agreement to publish the protocol, finished review, and subsequent updates in the Campbell Library. The Campbell Collaboration places no restrictions on publication of the findings of a Campbell systematic review in a more abbreviated form as a journal article either before or after the publication of the monograph version in Campbell Systematic Reviews. Some journals, however, have restrictions that preclude publication of findings that have been, or will be, reported elsewhere and authors considering publication in such a journal should be aware of possible conflict with publication of the monograph version in Campbell Systematic Reviews. Publication in a journal after publication or in press status in Campbell Systematic Reviews should acknowledge the Campbell version and include a citation to it. Note that systematic reviews published in Campbell Systematic Reviews and co-registered with the Cochrane Collaboration may have additional requirements or restrictions for co-publication. Review authors accept responsibility for meeting any co-publication requirements.

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Date: 15 July 2015