

University of Utrecht
Master psychology, Child- and Youth Psychology

THESIS

Parents of Children with ADHD, ODD or Comorbid ADHD and ODD: Do their Parenting Practices Differ?

Desiree Kluijtmans, 3270173
Date: 21-06-2011

Coordinator: Patty Leijten

Second criticist: Sander Thomaes

Contents

| | |
|---|----|
| Abstract..... | 2 |
| Introduction..... | 2 |
| Introduction: Parenting and behavior problems..... | 3 |
| Introduction: Parenting practices and severity of problem behavior..... | 4 |
| Introduction: The present study..... | 5 |
| Methods: Participants..... | 6 |
| Methods: Procedure..... | 7 |
| Methods: Measures..... | 7 |
| Methods: Analyses..... | 9 |
| Results: Difference in parenting practice..... | 8 |
| Results: Influence of parenting practices on severity ODD..... | 10 |
| Discussion..... | 10 |
| Discussion: Strengths, Limitations and Implications..... | 12 |
| References..... | 13 |

Abstract

This study examined whether parents of children with ODD, ADHD and comorbid ODD and ADHD show differences in monitoring, physical punishment and inconsistent parenting and whether these parenting practices influence the severity of ODD of the child. Questionnaires were filled in by 300 parents about their parenting practices and structural interviews on the problem behaviors of the child were obtained by the researchers. Results showed that parents of children with ODD showed more inconsistent parenting than parents of children with ADHD. For physical punishment and monitoring parents of children with ODD and those of children with ADHD did not differ from each other. Physical punishment, monitoring and inconsistent parenting did not influence the severity of ODD in children.

Introduction

Behavior problems in early childhood are often stable and predict negative outcomes in later life, such as school failure, substance abuse, and criminal behavior (Stormshak, Bierman, McMahon, & Lengua, 2000). Oppositional Defiant Disorder (ODD) and Attention Deficit Hyperactivity Disorder (ADHD) are behavior disorders. ODD is characterized by negativistic, defiant, hostile and disobedient behavior direct to grown-ups, such as parents and teachers (Conner, Steeber, & McBurnett, 2010). ADHD is characterized by inattention, hyperactivity and/or impulsivity (Conner et al., 2010). Sixty percent of the children with ADHD also show characteristics of ODD (Connor et al., 2010).

The most powerful predictor of behavior problems is parenting practices (Prinz et al., 2003). By studying the influence of parenting practices on behavior problems, the association between different parenting practices and different behaviors becomes clearer. This is important for intervention, so that effective parenting can be taught to parents of children with behavior problems. To gain more insight into the development of behavior problems is another important reason to study the associations between parenting practices and behavior problems. Inconsistent parenting, physical punishment and monitoring are parenting practices which have strong links with behavior problems. Whether the same parenting practices are associated with ADHD and ODD, because of the high comorbidity, was researched in this study.

Parenting and behavior problems

It is often found that inconsistent parenting has links with ODD. Especially inconsistent use of discipline is associated with characteristics of ODD (Frick, Christian & Wootton, 1999; Stormshak et al., 2000). Inconsistent parenting is found in mothers of preschool children who exhibit ODD behavior, the mothers are inconsistent in following through their commands in comparison to mothers of children without problem behaviors (Gardner, 1989). Not following through commands means that the mother first refuses the child's demand, but she later gave in. According to Patterson (1986), this failure of parents to follow through their commands will

reinforce the disobedience of the child and therefore will increase the probability of the recurrence of the problem behavior. This process is also called a coercive cycle. Inconsistent use of discipline is also associated with ADHD, independently of ODD (Ellis & Nigg, 2009).

Physical punishment is another parenting practice that is linked to the development of problem behavior. Behaviors such as hitting or kicking the child are called physical punishment. Children who receive physical punishment from their parents are more likely to become aggressive when they are under stress than other children. There is an association between physical punishment of the parents when children were five years old and externalizing child behavior problems at the age of ten (Thompson et al., 2003). A child that receives a lot of physical punishment internalizes that arguments can be solved with being harsh and aggressive. Parents of children with ADHD reported less physical punishment than parents of children with comorbid ADHD and ODD (Stormshak et al., 2000). This may suggest that physical punishment is more related to ODD than to ADHD. However, others found that physical punishment at age seven was not at all predictive of ODD ten years later (Burke, Pardini & Loeber, 2008). Hence, it is not clear yet whether physical punishment is related to ODD.

Another aspect of parenting practices associated with behavior problems is parental monitoring, which involves structuring the child's environment and 'tracking' the child (Dishion & McMahon, 1998). Much research on the influence of monitoring is done on adolescents, not on younger children. For adolescents parental monitoring has consistent and strong links with ODD, such that lower monitoring is related to ODD (Frick et al., 1999). There is also a small link between monitoring and ODD for younger children aged six to nine. Poor parental monitoring at age seven predicts the child having ODD ten years later, however monitoring is not predictive of ADHD (Burke et al., 2008). Monitoring is important because young children are developing social skills and parents need to help them. When parents show low monitoring, the child plays most of the time without supervision; if the child then hits another child the parent is not there to correct the child and to teach the child more social solutions. Also it is easier for the child to become involved with

other deviant children which may strengthen the problem behaviors (Dishion & McMahon, 1998).

Parents of children with ODD monitor more than parents of children with ADHD.

Parenting practices and severity of problem behavior

Parenting practices are not only linked with the child having a behavior disorder or not, but may also be related to the severity of the disorder. The more severe the disorder and problem behaviors are, the more the child and its environment (parents, school and society) will suffer. This part of the study focuses solely on ODD, because ODD has a stronger link with criminal behavior than ADHD. When, indeed, there is a link between parenting practices and the severity of ODD, treatment focused on parenting training practices could be less intensive for parents of a child with less severe ODD than for parents of a child with severe ODD. Studies on this link are scarce. Therefore, it is important to conduct more research on the link between parenting practices and severity of the problem behaviors.

Physical punishment is not only linked to the child having ODD, but also to the severity of ODD. Stormshak et al. (2000) examined punitive discipline and spanking; physical punishment is a part of punitive discipline. They found that punitive discipline and spanking had a link with the severity of problem behaviors. Therefore the more physical punishment, the more severe the problems are.

The link between inconsistent parenting and the severity of ODD is not directly researched. When looking at parenting training interventions, children often show a decrease in problem behaviors after parents participated in the intervention (Webster-Stratton, 1998). One of the parenting practices which is targeted by parent training is inconsistent parenting, the training helps parents to become more consistent in their behavior towards their child(ren) (Webster-Stratton, 1998). Therefore it could be that inconsistent parenting has a link with the severity of the problem behaviors, with more inconsistent parenting being linked with more problem behaviors.

Lower levels of parental monitoring increases problem behaviors in children (Wasserman, Miller, Pinner, & Jaramillo, 1996). It seems that there is a link between monitoring and the severity

of problem behaviors; when parents show less monitoring, the child shows more problem behaviors.

The present study

The present study examined the link between parenting practices and behavior problems of the child (ODD, ADHD, and comorbid ODD and ADHD). Inconsistent parenting was hypothesized not to be different for parents of children with ODD, ADHD and comorbid ADHD and ODD. The literature is divided on whether or not there is a difference in physical punishment by parents of children with ODD, ADHD and comorbid ODD and ADHD. Therefore, there was no clear hypothesis about this difference. Parental monitoring is hypothesized to be different for parents of children with ODD and ADHD: parents of children with ODD will monitoring their children less than parents of children with ADHD.

The present study also examines whether the three parenting practices individually influence the severity of ODD in the child. Physical punishment, inconsistent parenting and monitoring were hypothesized to all have links with the severity of ODD in children.

Methods

Participants

In the first part of the study about whether the parents of children with ODD, ADHD or comorbid ODD and ADHD differed in the three parenting practices 275 parents of 223 boys and 52 girls participated. The age of the children ranged from 3 to 5 years ($M = 4.13$, $SD = 0.72$). The sample consisted of families ranging from low socioeconomic status to high socioeconomic status. 22.2 % of the children is diagnosed with ODD, 42.5 % with ADHD and 35.3 % with comorbid ADHD and ODD.

Twenty-five parents of four girls and 21 boys participated in the part of the study about whether the three parenting practices influence the severity of ODD. The age of the children ranged from 4 to 8 years ($M = 5.7$, $SD = 1.2$).

Procedure

Data was collected as part of two larger studies. The first study focussed on the predictive value of executive functioning and environmental factors on severe behaviour problems in young children (3.5-5.5 years old). Participants were recruited through various channels, such as paediatrics and the welfare centre, who were referred to a child psychiatrist. Data of the first (of three) waves was used for the current study. The participants were asked to fill in several questionnaires on problem behaviour of the child and parenting practices.

In the second study, participants were recruited through various channels, such as general practitioners, who referred to a mental health institution and primary schools in Utrecht as part of a larger study on the effectiveness of a parent training program. Data of the first of the three waves was used in the current study. The participants were asked to fill in several questionnaires and a structural interview was taken. For filling in the questionnaires the participants received 25 Euros.

Measures

Disorder and severity. ODD, ADHD or comorbid ODD and ADHD were diagnosed by a psychologist and/or a psychiatrist of Utrecht Medical Centrum or of the mental health institution. They used the DSM-IV-TR criteria to make a diagnosis. To examine the severity of the disorder the parts of ODD and ADHD of the Diagnostic Interview Schedule for Children (DISC: Shaffer, Fisher, Lucas, Dulcan & Schwab-Stone, 2000) and the Kiddie Disruptive Behavior Schedule (KDBD: Keenan et al., 2007) were used. The DISC was taken by parents of children aged six and older, the KDBD by parents of children aged younger than six. By means of these interviews the number of symptoms of ODD were asked at the parents. The more symptoms the child had, the more severe the disorder was.

Inconsistent parenting: The subscale 'Harsh and Inconsistent Discipline' of the Parent Practices Interview (PPI: Webster-Stratton, Reid, & Hammond, 2001) (fifteen items) was used to measure inconsistent parenting. Parents were asked how they generally respond to their child, such as 'If your child hits another child, how likely is it that you would discipline your child in the

following ways?'. Every question had several options of how the parent could respond (three to eleven options, such as 'Threaten to punish him/her (but not really punish him/her)') and the parent did respond on a seven point scale from 'not at all likely' to 'extremely likely' he or she uses that option. This scale was found to have good internal consistency, with a Cronbach's Alpha of 0.85 (Drugli, Larsson, Fossum & Morch, 2010). In this study the Cronbach's Alpha was 0.75.

Physical punishment: The subscale 'Physical Punishment' of the PPI (six items) was used to measure harsh discipline. Parents were asked how they generally respond to their child on items such as 'If your child refused to do what you wanted him/her to do, how likely is it that you would use each of the following discipline techniques?' Each question gives several options how the parent could respond (three to eleven options, such as 'Slap or hit your child (but not spanking)'). The parent answered on a seven point scale from 'not at all likely' to 'extremely likely'. This scale showed in this study good internal consistency with a Cronbach's Alpha of 0.84.

Monitoring: To examine monitoring the subscale 'Monitoring' of the PPI (five items) was used. This scale examined via two items the time the child is unsupervised by an adult ('Within the last 2 days, about how many total hours was your child involved in activities outside your home without adult supervision, if any?'). Parents responded on an eight point scale, ranging from 'none' to 'more than 4 hours'. This scale also examines in two items what percentage of the time the parent knows what their child is doing ('What percentage of the time do you know exactly what your child is doing when she/he is away from you?'). Finally, the scale measures in one item the attitude of the parent about unsupervised time ('Giving children lots of free, unsupervised time helps them learn to be more responsible.'). Parents responded on a seven point scale, ranging from 'strongly disagree' to 'strongly agree'. This scale was found to have a Cronbach's Alpha of 0.64 (Coard, Foy-Watson, Zimmer & Wallace, 2007). In this study the Cronbach's Alpha was 0.47. The reliability of this scale is low, still this scale was used in this study. The results of this scale must therefore be interpreted carefully.

Analyses

To examine the difference in parenting between parents of children with ADHD, ODD, or comorbid ADHD and ODD an ANOVA was conducted. Regression analysis was conducted to examine the link of the three parenting practices and the severity of ODD.

Results

Differences in parenting practice

A one-way ANOVA was conducted to study whether there was a difference in parenting practices of parents of children with ADHD, ODD, or comorbid ADHD and ODD. There were no differences on the parenting practices inconsistent parenting ($F(2, 274) = 2.23, p = 0.09$), physical punishment ($F(2, 274) = 1.97, p = 0.14$) and monitoring ($F(2, 274) = 0.20, p = 0.82$) between the parents of children with ADHD, ODD, or comorbid ODD and ADHD. To examine whether there was a difference between two individual groups (versus comparing all three groups), T-tests were conducted for all three subscales of parenting practices between parents of children with ADHD and ODD, ADHD and comorbid ADHD and ODD, and between ODD and comorbid ADHD and ODD. Table 1 summarizes the results of the T-tests on the three parenting practices. There was only a difference between parents of children with ADHD and ODD on inconsistent parenting ($t(176) = -.21, p < 0.05$). Parents of children with ODD showed more inconsistent parenting than parents of children with ADHD.

Table 1. *T-values of the parenting practices between different groups.*

| Parenting practice | ADHD | | ODD | | ADHD+ ODD | |
|-------------------------------|------|------|------|-----|-----------|------|
| | M | SD | M | SD | M | SD |
| <i>Monitoring</i> | 27.9 | 4.8 | 27.9 | 3.9 | 28.3 | 4.2 |
| <i>Inconsistent parenting</i> | 43.0 | 10.4 | 46.5 | 3.9 | 45.0 | 10.9 |
| <i>Physical punishment</i> | 9.4 | 3.8 | 10.7 | 5.5 | 9.7 | 3.9 |

Influence of parenting practices on severity ODD

A regression analysis was conducted to study whether monitoring, physical punishment and inconsistent parenting influenced the severity of ODD in children. The results are summarized in Table 2. None of the parenting practices had a significant contribution to the severity of ODD in children. This means that neither monitoring, physical punishment nor inconsistent parenting had an influence on the severity of ODD in children.

Table 2. *Values of the regression of the three parenting practices with the severity of ODD.*

| Variable | β | p |
|------------------------|---------|------|
| Inconsistent parenting | .27 | 0.21 |
| Monitoring | .02 | 0.94 |
| Physical punishment | -0.21 | 0.33 |

Discussion

The present study researched whether parents of children with ODD, ADHD or comorbid ODD and ADHD show different parent practices. The parenting practices studied were inconsistent parenting, physical punishment and monitoring.

For inconsistent parenting, it was expected that parents of the three groups showed no difference, because previous research has shown that both parents of children with ODD as parents of children with ADHD showed inconsistent parenting in giving commands (Ellis & Nigg, 2009; Frick et al., 1999; Stormshak et al., 2000). This hypothesis was confirmed in this study. However, when looking at the difference between only parents of children with ODD or ADHD, it was found that parents of children with ODD showed more inconsistent parenting than parents of children with ADHD. Previous research had shown that inconsistent parenting is a failure to follow through commands (Gardner, 1989) and this will reinforce the disobedience of the child. Disobedience is a symptom of ODD and to a lesser extent of ADHD (American Psychiatric Association, 2001). Therefore, it could be that inconsistent parenting is stronger related to the problem behavior of children with ODD than on children with ADHD.

Whether parents of children with ODD, ADHD or comorbid ODD and ADHD showed a difference on physical punishment was inconsistent in the literature. That was why there was no expectation for this link. The results showed that there was no difference in physical punishment between the parents of children with ODD, ADHD or comorbid ADHD and ODD. This finding is consistent with the study of Burke et al. (2008), but not with the study of Stormshak et al. (2000). It could be that, because of the young age of the children in this study, the coercive cycle of parenting and problem behavior influencing each other has just began and that parents of children with ODD are more likely to show an increase in physical punishment from year to year (Burke et al., 2008). Young children have a thousand opportunities to learn either social or aggressive ways to deal with conflicts (Reid & Patterson, 1989), therefore it takes years until physical punishment of the parents influence the child's behavior.

For monitoring, it was expected that parents of children with ODD showed less monitoring than parents of children with ADHD. This study showed no difference in monitoring between parents of children with ADHD, ODD or comorbid ADHD and ODD. Burke and colleagues (2008) did find a difference in monitoring on children with the age of seven. This study focused on children from three to five years old. It could be that when the child gets older, monitoring becomes more important. Then the parent is not always physically around the child and it becomes more important to know where the child is, with whom he is and what the child is doing.

The present study researched whether the three parenting practices individually influenced the severity of ODD. This study found for none of the parenting practices inconsistent parenting, physical punishment and monitoring a contribution to the severity of ODD. These results differ from previous studies in which all of them have been linked to the severity of ODD. It could be that there were not enough participants (25 parents) in this study to find an effect for the parenting practices.

Strengths, Limitations and Implications

Most of the research on parenting practices and problem behavior is conducted with older children (age six and older). A strength of this study was that it focused on younger children, already from the age of three. Without intervention at a young age of the child, the oppositional behaviors of the young child becomes a rigid pattern at the age of eight (Eron, 1990). That the participants were a diverse sample regarding their socioeconomic status is another strength. In this way the population is better represented than when only low or high socioeconomic status was taken in this sample. Therefore, the results of this study can be generalized to the population.

A limitation can be found in the second part of the study. This part had only 25 participants, who did not all have a diagnosis of ODD. To study whether parenting practices influence the severity of ODD, more participants are necessary. Second, this study was correlational. Therefore, it is unknown whether parenting practices influence the problem behavior or whether the problem behavior influences the parenting practices.

Parents of young children with ODD, ADHD or comorbid ADHD and ODD did not differ in physical punishment, monitoring and inconsistent parenting according to this study. Previous research showed that for older children the parenting practices did differ. More research should be conducted to see when parenting practices will get a visible effect in the development of ADHD and ODD. And whether parenting practices differ for older and younger children. More research with more participants is necessary to investigate whether physical punishment, monitoring and inconsistent parenting influence the severity of ODD. With more participants it will be more likely that if there is an effect, it will become visible.

There was no difference in parenting practices between parents of ODD, ADHD and ODD comorbid ADHD in this study, except when parents of children ODD and ADHD were directly compared. Then there was a difference in inconsistent parenting with parents of children with ODD showing more inconsistent parenting than parents of children with ADHD. For treatment, this may

have the implication that parents of children with ODD would benefit more than parents of ADHD when they learn how to be consistent in their parenting.

References

- American Psychiatric Association (2001). *Beknopte handleiding bij de Diagnostische Criteria van de DSM-IV-TR bureau-editie*. Washington, DC & London, UK.
- Burke, J.D., Pardini, D.A., & Loeber, R. (2008). Reciprocal relationships between parenting behavior and disruptive psychopathology from childhood through adolescence. *Journal of Abnormal Child Psychology*, 36, 679-692.
- Coard, S.I., Foy-Watson, S., Zimmer, C., & Wallace, A. (2007). Considering culturally relevant parenting practices in intervention development and adaptation: A randomized controlled trial of the black parenting strengths and strategies (BPSS) program. *The Counseling Psychologist*, 35, 797-820.
- Connor, D.F., Steeber, J., & McBurnett, K. (2010). A review of Attention- Deficit/Hyperactivity Disorder complicated by symptoms of Oppositional Defiant Disorder or Conduct Disorder. *Journal of Developmental & Behavioral Pediatrics*, 31, 427-440.
- Deković, M., Janssens, J.M.A.M., & van As, N.M.C. (2003). Family predictors of antisocial behavior in adolescence. *Family Process*, 42, 223-235.
- Dishion, T.J., & McMahon, R.J. (1998). Parental monitoring and prevention of child and adolescent problem behavior: A conceptual and empirical formulation. *Clinical Child and Family Psychology Review*, 1, 61-75.
- Drugli, M.B., Larsson, B., Fossum, S., & Morch, W-T. (2010). Five- to six-year outcome and its prediction for children with ODD/CD treated with parent training. *Journal of Child Psychology and Psychiatry*, 51, 559-566.
- Ellis, B.M.A., & Nigg, J. (2009). Parenting practices and attention-deficit/hyperactivity disorder: new findings suggest partial specificity of effects. *Journal of the American Academy of Child and Adolescent Psychiatry*, 48, 146-154.

- Eron, L. D. (1990). Understanding aggression. *Bulletin of the International Society for Research on Aggression*, 12, 5–9.
- Gardner, F.E.M. (1989). Inconsistent parenting: Is there evidence for a link with children's conduct problems? *Journal of Abnormal Child Psychology*, 17, 223-233.
- Frick, P.J., Christian, R.E., & Wootton, J.M. (1999). Age trends in the association between parenting practices and conduct problems. *Behavior Modification*, 23, 106-128.
- Keenan, K., Wakschlag, L.S., Danis, B., Hill, C., Humphries, M., Duax, J., & Donald R (2007). Further evidence of the reliability and validity of DSM-IV ODD and CD in preschool children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 46 (4), 457-468.
- Patterson, G.R. (1986). Performance models for antisocial boys. *American Psychologist*, 41, 432–444.
- Prinz, P., Onghena, P., Hellinckx, W., Grietens, H., Ghesquie' Re, P., & Colpin, H. (2003). The additive and interactive effects of parenting and children's personality on externalizing behaviour. *European Journal of Personality*, 17, 95-117.
- Reid, J.B. & Patterson, G.R. (1989). The development of antisocial behaviour patterns in childhood and adolescence. *European Journal of Personality*, 3, 107-119.
- Shaffer, D, Fisher, P., Lucas, C., Dulcan, M.K., & Schwab-Stone, M.E. (2000). NIMH Diagnostic Interview Schedule for Children Version IV (NIMH DISC-IV): Description, Differences From Previous Versions, and Reliability of Some Common Diagnoses. *Journal of the American Academy of Child and Adolescent Psychiatry*, 39 (1), 28-38.
- Stormshak, E.A., Bierman, K.L., McMahon, R.J., & Lengua, L.J. (2000). Parenting practices and child disruptive behavior problems in early elementary school. *Journal of Clinical Child Psychology*, 29, 17-29.

- Thompson, A., Holis, C., & Richards, D. (2003) Authoritarian parenting attitudes as a risk for conduct problems: Results from a British national cohort study. *European Child & Adolescent Psychiatry, 12*, 84-91.
- Wasserman, G.A., Miller, L.S., Pinner, E.M.A., & Jaramillo, B.D.P.H. (1996). Parenting predictors of early conduct problems in urban, high-risk boys. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*, 1227-1236.
- Webster-Stratton, C. (1998). Preventing conduct problems in head start children: strengthening parenting competencies. *Journal of Consulting and Clinical Psychology, 66*, 715-730.
- Webster-Stratton, C., Reid, M., & Hammond, M. (2001). Preventing conduct problems, promoting social competence: A parent and teacher training partnership in Head Start. *Journal of Clinical Child Psychology, 30* (3), 283-302.