

# ‘You are Okay’: Effects of a support and educational program for children with mild intellectual disability and their parents with mental health concerns

Journal of Intellectual Disabilities  
1–20

© The Author(s) 2020  
Article reuse guidelines:

[sagepub.com/journals-permissions](https://sagepub.com/journals-permissions)

DOI: 10.1177/1744629520953765

[journals.sagepub.com/home/jid](https://journals.sagepub.com/home/jid)



**Ivon Riemersma** 

Pluryn Research & Development,  
The Netherlands

**F Van Santvoort**

Pluryn Research & Development,  
The Netherlands

**KTM Van Doesum**

Radboud University Nijmegen, The Netherlands; Impluz Team Prevention, Dimence Groep, The Netherlands

**CMH Hosman**

Radboud University Nijmegen, The Netherlands

**JMAM Janssens**

Radboud University Nijmegen,  
The Netherlands

**RAP Van der**

**Zanden**

Trimbos-Institute, The Netherlands

**R Otten**

Pluryn Research & Development, The Netherlands; Radboud University Nijmegen, The Netherlands; Arizona State University, USA

## Abstract

**Background:** Children with mild intellectual disabilities and emotional and behavioural problems whose parents have mental health concerns are at an increased risk of developing problems themselves. This study analysed the effectiveness of the ‘You are Okay’-program aimed to support these children and parents and to reduce the risk of problem development in children. **Method:** A quasi-experimental design was used to compare the experimental group (‘care as usual’ and ‘You are Okay’) with the control group (‘care as usual’) on the main outcome of emotional and behavioural problems and proposed intermediate outcomes. **Results:** Children in the experimental group reported a significant medium to large decrease in emotional and behavioural problems compared to the control group. The effects on the intermediate outcomes were non-significant. **Conclusions:** This specific study population comprising a vulnerable group of children seems to benefit from this specially adapted ‘You are Okay’-program. More research is necessary to draw further conclusions.

## Keywords

children with mild intellectual disabilities, COPMI, interventions, parental mental illness

---

## Corresponding author:

Ivon Riemersma, Pluryn Research & Development, Industrieweg 50, P.O. Box 53, 6500AB, Nijmegen, The Netherlands.

Email: [iriemersma@pluryn.nl](mailto:iriemersma@pluryn.nl)

## Introduction

Some studies have shown that children with mild intellectual disabilities and co-occurring emotional and behavioural problems (IQ between 50 and 85) often have parents with mental health concerns (Taggart et al., 2010; Van Santvoort and Riemersma, 2019). Specifically, these studies reported that 55–66% of them have a parent with mental health concerns. Research on children with average intelligence having parents with mental illness and/or a substance use disorder (COPMI) has repeatedly shown an increased risk for these children to develop social-emotional problems, caused by an interplay of genetic predispositions, biological risk factors (e.g. caused by stress or medication use during pregnancy) and psychosocial risk factors. Psychosocial risk factors can be categorized as: 1) factors associated with the mental illness of the parent, such as illness severity and chronicity and parental competence and coping skills; 2) child factors, like age, gender, intelligence, temperament and self-esteem; 3) family factors, such as family functioning, relationship between parents and parent-child interaction; and 4) contextual factors, like social support, professional help and stigmatization. However, when positive, these factors can act to protect the child against risk factors or reduce the effect of risk factors by creating a buffering effect. Risk factors seem to have a cumulative effect; especially children who face many risk factors seem to be at risk of developing problems themselves (Beardslee et al., 2011; Havinga et al., 2017; Van Santvoort et al., 2014). To prevent social-emotional problems in this group, preventive interventions, such as support groups, have been developed (Reupert et al., 2012). For the particularly high-risk group of children with mild intellectual disabilities and their parents with mental health concerns, no (preventive) intervention was available up till now. The current study assessed the effectiveness of the program ‘You are Okay’ designed particularly for children with mild intellectual disabilities receiving treatment for emotional and behavioural problems and their parents with mental health concerns (Riemersma et al., 2015; Riemersma and Van Santvoort, 2014). Since many children with mild intellectual disabilities have emotional and/or behavioural problems themselves and already receive treatment (‘care as usual’), this program is considered as an additional competence training instead of an exclusively prevention-oriented intervention, such as in the case of support groups for children with average intelligence. Figure 1 presents detailed information about this program. Educational, social and health care settings could benefit from the present study, as it will inform people about the additional effect of the ‘You are Okay’ program on regular treatment and support for children with mild intellectual disabilities and emotional and/or behavioural problems. Evidence-based interventions are scarce for this risk group that often needs lifelong support. In order to reduce treatment and support intensity and improve its quality, settings are searching for ways to improve family involvement.

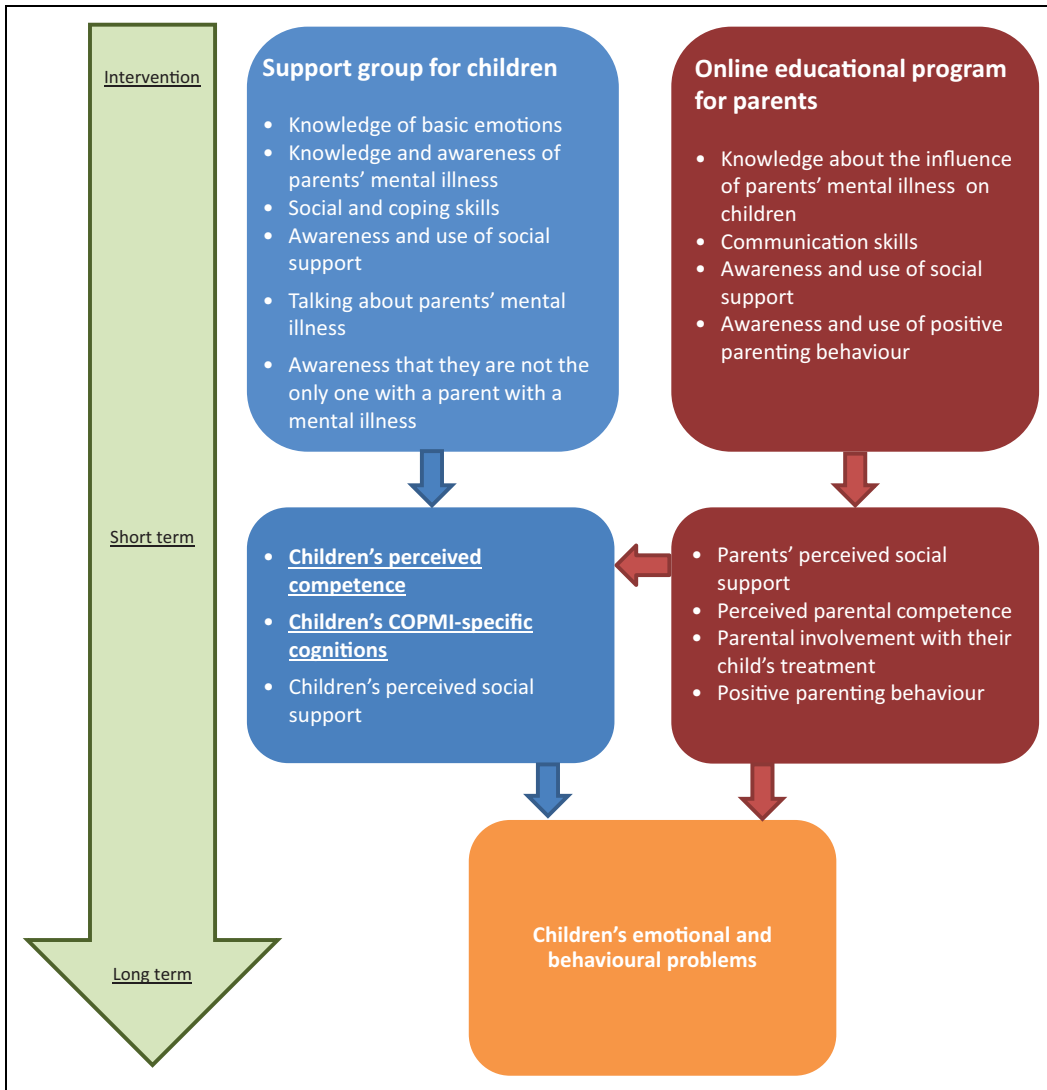
The theoretical model underlying the program, as shown in Figure 2, was based on empirical knowledge about changeable risk and protective factors, and working mechanisms of interventions for children of parents with mental health concerns (Riemersma et al., 2015). Psychosocial risk and protective factors that are often addressed in these child and parent interventions are: skills to search and ask for social support; self-esteem and negative cognitions (e.g. feelings of guilt, shame, loneliness); knowledge about the parental disorder; social competence skills (e.g. coping with negative reactions from others, showing and talking about and listening to their own feelings and needs); parent-child interaction; and parenting behaviour (Hosman et al., 2009).

Intellectual disabilities are also related to an increased risk for the development of emotional and behavioural problems, such as ADHD, depression, oppositional defiant disorder and autism in children (Emerson and Hatton, 2007). Specific deficits or vulnerabilities associated with children’s

The 'You are Okay'-program					
<ul style="list-style-type: none"> <li>Based on the support group for children with average intelligence and their parents with mental health concerns (Van Santvoort, 2013) and on the online educational program for parents ('Kopopouders', Van der Zanden et al., 2010).</li> <li>Adaptations were made to meet the particular needs of children with mild intellectual disabilities and their parents (simplifying language and providing additional sessions on basic emotions) (Riemersma et al., 2015).</li> <li>The changes were discussed with professionals who worked in specialised treatment facilities for children with mild intellectual disabilities and their parents, and they were based on Dutch guidelines for developing interventions for children with mild intellectual disabilities (De Wit et al., 2011).</li> <li>A pilot study (N=4) showed that children with mild intellectual disabilities were able to understand their parents' mental health concerns and to reflect on it.</li> </ul>					
Support group for children			Online educational program for parents		
Session	Themes	Aims	Session	Themes	Aims
1	Get to know each other	Knowledge and awareness of parents' mental health concerns Create a safe environment	1	Negative cognitions	Confidence for being a good parent
2	Recognize problems at home	Awareness that they are not the only one with a parent with mental health concerns	2	Possible influence of problems on the children	Knowledge about the influence of parents' mental health concerns on children
3	Recognize basic emotions	Knowledge of basic emotions	3	Communication	Understanding children and discussing mental health concerns with children
4	Recognize emotions in difficult situations	Recognize basic and other emotions regarding their parent with mental health concerns	4	Positive behaviour of the children	Giving compliments and setting boundaries
5	Show emotions	Recognize, show and talk about basic and other emotions with each other	5	Social network	Awareness and use of social support in and outside the family
6	Understand mental health concerns	Knowledge and awareness about parents' mental health concerns			
7	Use social network	Awareness and use of social support			
8	Cope with difficult situations	Practising social and coping skills			
9	Develop social skills	Practising social skills			
10	Parting session	Evaluating and positive goodbye			
	Booster session	Extra evaluating and positive goodbye			

Figure 1. The 'You are Okay'-program.

mild intellectual disabilities explain the high prevalence of emotional and behavioural problems in these children. Firstly, child-characteristics related to children's mild intellectual disabilities concern, for example, problems in social information processing, aggressive problem-solving skills and difficulties in executive functioning (Hay et al., 2001; Van Nieuwenhuizen et al.,



**Figure 2.** Theoretical model of the 'You are Okay'-program.

2004). Second, negative family characteristics, such as low income and unemployment also affect the possible development of emotional and behavioural problems (Douma, 2018). As a consequence, many children with mild intellectual disabilities need specialized treatment to achieve positive developmental outcomes and to prevent (further) problem development. The treatment intensity for these children and their levels of already existing emotional and behavioural problems differ widely (Douma, 2018). If possible, children should receive treatment in the comfort of their homes on an outpatient basis. However, when problem intensity in both children and parents is high and healthy child development is jeopardized, residential care might be needed (Embregts,

2009). In an earlier study (submitted for publication), we showed that a clinical group of children with mild intellectual disabilities and emotional and behavioural problems whose parents have mental health concerns showed higher levels of social-emotional problems compared to both children with average intelligence whose parents have mental health concerns *and* children with mild intellectual disabilities and parents without mental health concerns. This finding highlights the necessity of a specialized intervention for this population of children and their parents.

In adult mental health centres, various types of preventive interventions have been developed for children of parents with mental health concerns to prevent them from developing social-emotional problems (Reupert et al., 2012; Van Doesum and Hosman, 2009). A support group for children of different age groups is the most common type of intervention. These support groups aim to increase protective factors and decrease risk factors by empowering social support, increasing perceived competence and decreasing 'COPMI-specific cognitions' (such as feelings of guilt, shame and loneliness). In these professional guided support groups, peers share experiences about coping with their parent with mental health concerns in the safe context of small groups. They provide each other with support through sharing stories and practicing coping skills with role-playing games. Moreover, they receive psychoeducation to better understand the illness and behaviour of their parents. In this way, children can learn that they are not the only ones with a parent suffering from mental health concerns and that they should not blame themselves for the problems of their parent. Research showed that it is possible to strengthen children of parents with mental health concerns with interventions aimed at decreasing the risk of developing social-emotional problems (Thanhauser et al., 2017). In the Netherlands, Van Santvoort and colleagues (2013) showed that support groups for children of parents with mental health concerns, aged 8 to 12 years, were effective. Compared to children in the control group, children in the intervention group sought more social support and showed less COPMI-specific cognitions of guilt, shame and loneliness and more perceived competence. A recommendation from this study was to further involve parents in the child support groups (Van Santvoort et al., 2013). Earlier studies showed that parental involvement was crucial in the effectiveness of child interventions (Blok et al., 2005; De Wit et al., 2011; Riosa et al., 2011; Thanhauser et al., 2017). Based on the above literature, we included the intermediate outcomes children's perceived competence, children perceived social support and the main outcome of children's emotional and behavioural problems in our theoretical model (Figure 2). We expected these intermediate outcomes to be changeable risk and protective factors which cumulatively affect the main outcome.

In addition to the interventions for children with parents with mental health concerns, interventions for parents with mental health concerns were developed to provide parents with psycho-education about the negative effect of parental mental health concerns on children, the importance of social support and having an emergency plan. These programs are often offered online due to difficulties that parents with mental health concerns encounter in joining 'live' support groups for parents, including shame, low levels of energy or transport difficulties. Van der Zanden et al. (2010) showed an increase in parenting competence and a decrease in emotional and behavioural problems in children after participation in an online educational program compared to the baseline level. As described in our theoretical model (Figure 2) we included children's emotional and behavioural problems as the main outcome. The included intermediate outcomes children's perceived competence and children perceived social support were considered to be changeable risk and protective factors linked to the intervention goals and were supposed to cumulatively affect the main outcome.

In this study, we compared children and parents who participated in the program ‘You are Okay’ and received ‘care as usual’ to children and parents who received ‘care as usual’ only. The content of the ‘care as usual’ in the current sample is described in the method section. We expected that children and parents who participated in the ‘You are Okay’ program would report lower levels of emotional and behavioural problems compared to children and their parents who received ‘care as usual’. Second, we assessed the intermediate outcomes of the intervention: children’s perceived competence; children’s COPMI-specific cognitions; children’s and parents’ perceived social support; perceived parental competence; parental involvement with their child’s treatment; and positive parenting behaviour. We expected that children and parents in the intervention group would report improvements on the intermediate outcomes compared to children and their parents in the control group (Riemersma et al., 2015). According to Van Santvoort et al. (2013), these intermediate outcomes are considered changeable risk and protective factors that are supposed to contribute to the emotional and behavioural development of children. Finally, we studied the additional effect of the online educational program for parents. Since not all parents in the experimental group participated in the program, we compared child and parent outcomes when they both took part in the program with outcomes when the child was the single participant. We expected that parents who participated in the online educational program would score lower on their child’s emotional and behavioural problems and higher on all intermediate outcomes of the program compared to parents who did not participate in the online educational program.

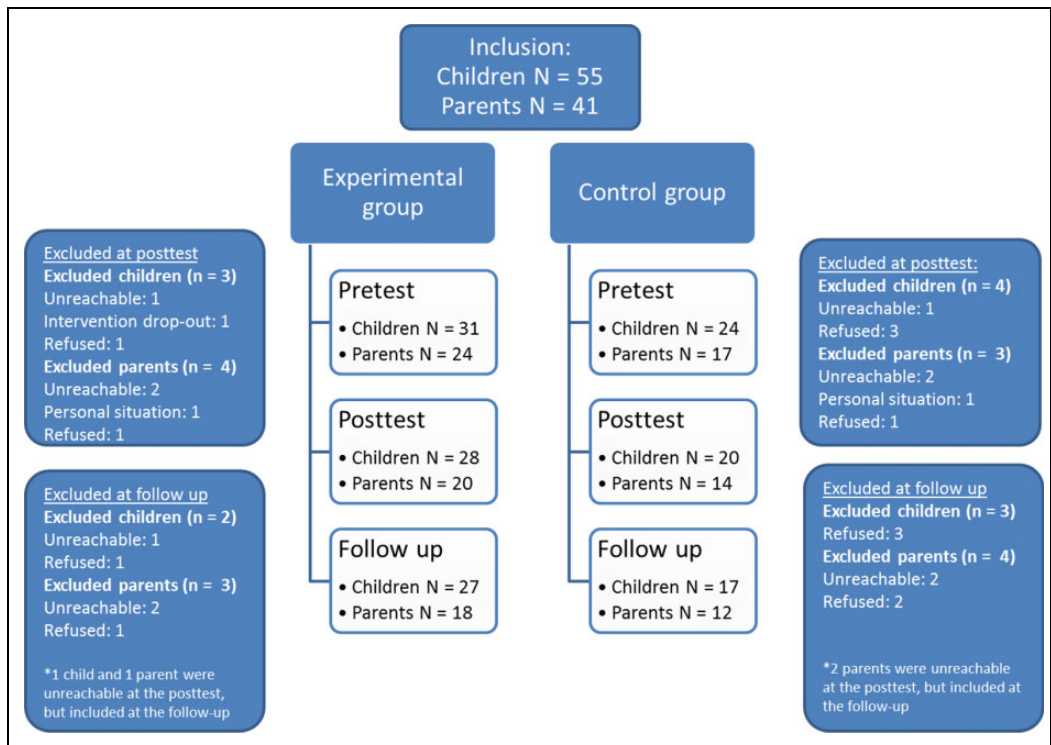
## **Method**

### *Participants*

Participants were children and adolescents with mild intellectual disabilities and emotional and behavioural problems who were between 10 and 20 years old and had at least one parent with mental health concerns. Recruitment occurred in four Dutch treatment facilities offering outpatient treatment or residential care for children with mild intellectual disabilities and emotional and behavioural problems. The facilities were located in different regions throughout the Netherlands.

Treatment coordinators indicated the presence of mental health concerns in parents based on their clinical judgement formed during the meetings with parents about the treatment of their children. Treatment coordinators were health professionals (e.g., psychologists) familiar working with defining and classifying mental disorders according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5, American Psychiatric Association, 2013). They were responsible for the child’s treatment and contacted parents on a regular basis to discuss treatment progress. To be included, at least one of the parents had to have mental health concerns according to the treatment coordinator. Moreover, children needed to have a certain level of stability in order to be able to reflect on the parental mental health concerns. Therefore, we included children who were for at least 3 months in treatment, who were currently not in a crisis situation and who were stable enough to adequately cope with their potential emotional responses to the program. Children who were not able to participate in a support group, for instance, because of severe emotional or behavioural problems, were excluded. Treatment coordinators screened the children on these inclusion criteria. Finally, parents needed to provide consent for their child to participate in the support group. The treatment coordinators screened all included children for eligibility.

Fifty-five children and 41 parents were included in the study. Figure 3 shows the flow chart of the participant inclusion and exclusion. Some parents were unable to participate because they were



**Figure 3.** Flow chart of inclusion and exclusion of participants.

in a crisis situation ( $n = 7$ ) or there was no contact between the child and one or both parents at all ( $n = 3$ ). In 26 cases, we included one parent and in 15 cases both parents participated, in which case we evaluated which parent was the most involved with the child by assessing the frequency of contact between the child and his or her parents. Not all participating parents had mental health concerns themselves; for some participants, the (ex) partner suffered from mental health concerns ( $n = 6$ ). Children of non-participating parents could join the study after the involved parent or family guardian gave consent. Data were collected between October 2014 and October 2017.

## Design

A quasi-experimental design was used to assign children and parents to the experimental or control group. Children from the same treatment facility were assigned to the same group. Furthermore, children within the same age group (for example 10–14 or 12–16 years) were assigned to the same group. The 10–20 years age range was chosen in accordance with the age range of the treatment facilities. To obtain two comparable groups, children were matched by age, gender and type of setting (residential or part-time). An independent researcher performed the allocation before the baseline assessment and assured that the experimental and control group matched optimally. Consequently, children and parents were asked to complete a pre-test assessment, a post-test assessment 10 weeks after the pre-test and a follow-up assessment 6 months after the pre-test.

### *Experimental group*

The experimental group received the ‘You are Okay’ program in addition to ‘care as usual’. The program included a support group for children and an online educational program for parents. The support group included 10 weekly sessions lasting 1.5 hours and a booster session 6 weeks after the last session. Each session had different themes but there was a standard structure. A warm-up exercise was used to start each session. After the introduction, homework assignments and the children’s previous week’s experiences were discussed. The program continued with theme-related exercises, role-playing games, psychoeducation, videos and practising coping and social skills. The trainers summarized each session at the end of the session, and they explained the homework assessment. The themes and aims of the support group for children are explained in Figure 1 and are linked to the theoretical model of the program in Figure 2. Content and detailed instructions of the sessions are described in a manual (Riemersma and Van Santvoort, 2014). Children received a workbook for homework assessments and for re-reading the *resumés* of the sessions. Trainers who were familiar working with children with mild intellectual disabilities led the support group. Researchers trained the trainers with a train-the-trainer model to explain the program materials and the theoretical model underlying the support group. Trainers evaluated the program and each session individually, including details about following and/or diverging from the program instructions to check inter-trainer fidelity. We analysed whether they completed all subparts of the program and the duration of these subparts. Trainers also attended structural meetings with colleagues in which experiences were shared.

Parallel to the support group for children, parents participated in an online educational program. They received information on five themes, reflecting on their role as a parent and on the possible influence of their problems on their child. The themes and aims of the online educational program for parents are explained in Figure 1. Parents completed the online educational program in the same period as the children participated in the support group. A social worker involved in the family system visited the parent and assisted him/her in completing the five themes in three sessions. The educational program consisted of a closed website where parents needed to login. The sessions included written information, filmed personal stories of other parents, animation videos and assignments. The researchers used a train-the-trainer model with a trainer manual to train the social workers to support parents in the online educational program.

### *‘Care as usual’*

Children in the experimental and control group received ‘care as usual’ from the specialized institutes for children with mild intellectual disabilities and emotional and behavioural problems. This implies that all participating children in this study not only had mild intellectual disabilities but also received treatment for emotional and behavioural problems. The institutes indicate personal treatment goals for children in an ‘individual treatment program’. For instance, a personal treatment goal could be to improve social skills in relation to peers or to learn to regulate their feelings without physical or verbal aggression. Treatment from the specialized institutes could pertain to individual therapy, group therapy, cognitive behavioural therapy, Eye Movement Desensitization and Reprocessing therapy or coaching. In the treatment program of each child a multidisciplinary team is always involved and includes treatment coordinators, social workers, psychologists and group workers. Social workers visit parents at home to assess parental needs and provide them with treatment as well (e.g., psychoeducation and communication training). Parents of the children in the control group did not complete the online educational program.



## Procedure

Treatment coordinators and social workers screened children and parents for in- and exclusion criteria. All selected children met the inclusion criteria. The aims of the study were explained to parents by phone or during a face-to-face appointment. Children and parents (or family guardians when involved) who agreed to participate and signed the informed consent form were included. Children and parents were assessed orally according to a standardized protocol by trained master's psychology students. Plain language was used in information letters and in assessments because both children and parents might show difficulties understanding written information. Children and parents received a reward of 5 euros each after completing all assessments.

The Medical Research Ethics Committee (Independent Review Board Nijmegen) approved the study protocol (NL49448.072.14). The study protocol was registered at the Dutch Trial Register (NTR4845, Riemersma et al., 2015).

## Measures

### *Main outcome*

*Children's emotional and behavioural problems.* The 25-item Strengths and Difficulties Questionnaire (SDQ) was used to assess children's emotional and behavioural problems (Goedhart et al., 2003; Goodman, 1997). Children and parents were asked to respond to the survey items measured on a three-point Likert scale (0 = not true, 1 = somewhat true, and 2 = certainly true). The questionnaire for children included colour-coded response options. It assessed children's strengths and difficulties in five domains: emotional symptoms; conduct problems; hyperactivity-inattention; peer problems; and prosocial behaviour. The sum of the first four subscales represents the total difficulties scale. Moreover, the first two subscales (emotional symptoms and peer problems) together form an internalizing scale and the other two subscales (conduct problems and hyperactivity-inattention) form an externalizing scale. Reliability and validity of the SDQ assessed by children with mild intellectual disabilities are well established, with Cronbach's alpha of the subscales ranging from 0.58 to 0.80 (Kaptein et al., 2008). In the current study, we analysed the effects on the internalizing, externalizing, and total difficulties scale. To account for the skewness of the data and the ordered categorical nature of the SDQ items, we used omega as a coefficient of internal reliability (Stone et al., 2013). The McDonald's omegas of the subscales in the current study ranged from 0.62 to 0.88 for the child report and from 0.50 to 0.88 for the parent report.

### *Intermediate outcomes*

*Children's perceived competence.* Subscales social acceptance and global self-worth of the Dutch version of the Self Perception Profile for Adolescents (SPPA) were used to measure children's perceived competence (Harter, 1988; Treffers et al., 2002). Both subscales contain five items measured on four-point Likert scales. Colour-coded response options were used to help the children answer the items. The reliability of this instrument is sufficient (Treffers et al., 2002). This questionnaire has been widely used by researchers in the field of intellectual disabilities (Jones, 2012). The Cronbach's alpha in the current study ranged from 0.67 to 0.76 for the social acceptance scale and from 0.69 to 0.82 for the global self-worth scale.

*Children's COPMI specific cognitions.* Children's COPMI specific cognitions were measured by a short questionnaire on COPMI-specific cognitions developed by Van Santvoort et al. (2013). The scale containing three items measures whether a child experienced guilt, shame, and loneliness

from having a parent with mental health concerns on a five-point Likert scale. This questionnaire has not yet been investigated in children with mild intellectual disabilities. To make sure this measure could be used by children with intellectual disabilities, we included colour coded response options accompanied by emoticons to make it easier for them to select an answer, and we tested this in a pilot study. The Cronbach's alpha in the current study ranged from 0.61 to 0.68.

*Children's perceived social support.* The Dutch version of the Network of Relationships Inventory – Behavioural System Version (NRI-BSV) was used to assess children's perceived social support (Furman and Buhrmester, 2009). Children completed three out of the eight subscales: 'seeks safe haven', 'seeks secure base' and 'companionship'. Original subscales contain three five-point Likert scale items. This questionnaire has not yet been investigated in children with mild intellectual disabilities. To make sure this measure could be used by children with intellectual disabilities, we adapted it to a colour-coded three-point Likert scale, to make it easier for them to select an answer, and we tested this in a pilot study. Children answered all questions pertaining to their mother, father, sibling, girlfriend/boyfriend, best friend and involved professional. The sum of all items for all relationships indicated children's perceived social support. The reliability of this instrument was proven to be sufficient (Furman and Buhrmester, 2009). The Cronbach's alpha in the current study ranged from 0.93 to 0.96.

*Parents' perceived social support.* A short version of the Dutch Social support list-interactions (SSL-12-I) questionnaire was used to measure parents' perceived social support (Van Eijk et al., 1994). It contains 12 items measuring three types of social support, everyday support, support in problem situations and esteem support, on a four-point Likert scale. These subscales together formed the total social support as perceived by parents. The NRI-BSV is a validated instrument (Van Eijk et al., 1994). The Cronbach's alpha in the current study ranged from 0.91 to 0.92.

*Perceived parental competence.* A competence scale and an incompetence scale, taken from different questionnaires, were used to measure perceived parental competence. The Parenting Self-Agency Measures (Dumka et al., 1996) was used for the competence scale. It contains five items measured on a six-point Likert scale and assesses the perceived efficiency as a parent. Incompetence was measured with a short Dutch version of the Parenting Stress Index (Abidin, 1983), the 'Nijmeegse ouderlijke stress index (Nijmegen parental stress index)' (De Brock et al., 1992). It contains six items with six-point Likert scale and assesses feelings of inadequacy as a parent. Both subscales have sufficient reliabilities (Langemeijer et al., 1997). The Cronbach's alpha in the current study ranged from 0.27 to 0.57 for the competence scale and 0.69–0.80 for the incompetence scale. Due to low reliability, perceived parental competence was not further assessed.

*Parental involvement with their child's treatment.* Parents rated their parental involvement with their child's treatment on a scale from 0 to 10.

*Positive parenting behaviour.* Positive parenting behaviour was measured using the Parenting Scale (Arnold et al., 1993) which has good psychometric properties also in parents with mental health concerns (Van der Zanden et al., 2013). Parents completed 21 items on a seven-point Likert scale with subscales laxness and over-reactivity. The Cronbach's alpha in the current study ranged from 0.80 to 0.85 for laxness and from 0.69 to 0.78 for over-reactivity.

*Background information.* Treatment coordinators collected background information about the participating children. They were asked to report the most recent IQ-scores, diagnoses and whether the children showed (mainly) internalizing and/or (mainly) externalizing problem behaviours.

## Analyses

T-tests and Chi-square tests were used to examine pre-test differences between the experimental and control group. Descriptive statistics for all study variables were also conducted. To test the effectiveness of the intervention, we used Structural Equation Modelling with Mplus software (Version 7; Muthén and Muthén, 1998–2017), as this statistical package deals with missing data. Specifically, we tested whether the intervention affected the different outcome measures at post-test and follow-up measurement while controlling for the baseline measurement.

Gender, age, and the online educational program for parents were included as baseline covariates in the model. Attrition analyses were conducted but no systematic relationships were found between baseline covariates and missingness. Skewness (cutoff < 2) and kurtosis (cutoff < 7) of the outcome variables fell within the acceptable range (West et al., 1995) assuming normal distribution. The default ML estimator for continuous variables was used. ML directly computes the parameter estimates using all available information, taking the missingness into account under the assumption of ‘MAR’ (FIML: Full Information Maximum Likelihood: FIML) (Muthén et al., 2017).

## Results

### *Pre-test characteristics*

Table 1 shows the pre-test characteristics of the participating children, parents and families. Pre-test differences between the experimental and control group were analysed with t-tests and Chi-square tests. No significant differences were found.

### *Intervention effects*

*Main outcome.* The SDQ was completed by 55 children and 41 parents. Table 2 presents the means (SD) of the main outcome variable, emotional and behavioural problems in children. Because the models were saturated, the chi-square test of model fit, as well as the other fit measures, all show perfect fit. This means that model fit cannot be evaluated. However, we can evaluate whether the suggested effects in the models are significant. What stands out are a few significant effects. Children in the experimental group reported lower levels of externalizing problems in comparison to the control group at the follow-up assessment ( $B = 0.342, p = 0.011$ ) with an effect size of Cohen’s  $d 0.76$ , which is a medium to large effect. Hence, the reported level of children’s externalizing problems in the experimental group decreased from a clinical score to a healthy/clinical borderline score.

Parents in the experimental group reported lower levels of total difficulties in comparison to the control group on the post-test assessment ( $B = 0.392, p = 0.030$ ) with an effect size of Cohen’s  $d 0.18$ , which is a small effect. At the follow-up assessment, parents in the experimental group reported lower levels of the total of child difficulties ( $B = 0.427, p = 0.016$ ) and lower levels of externalizing problems ( $B = 0.623, p = 0.000$ ), although these scores were still in a clinical range. The corresponding Cohen’s  $d$  effect sizes were 0.51 (medium to large effect) and 1.08 (large effect).

*Intermediate outcomes.* No significant effects were found on the intermediate outcomes, i.e. children’s perceived competence, children’s COPMI specific cognitions, children’s perceived social support, parents’ perceived social support, perceived parental competence, parental involvement with their child’s treatment, and positive parenting behaviour for both post-test and follow-up assessments.

**Table 1.** Pre-test characteristics of the participating children, parents and families.

	Experimental group	Control group	t	$\chi^2$	p
Child characteristics					
Mean age	13.79 (2.11)	14.43 (2.95)	-0.89		0.38
Female (%)	38.7	37.5		.008	0.93
Type of health care (%)				.007	0.93
Residential care	67.7	66.7			
Part-time treatment	32.3	33.3			
Intelligence quotient (IQ)					
Total intelligence quotient (TIQ)	70.50 (9.03)	73.50 (6.77)	-1.28		0.21
Verbal intelligence quotient (VIQ)	74.40 (9.37)	76.95 (5.89)	-1.11		0.27
Performance intelligence quotient (PIQ)	70.64 (9.87)	76.44 (10.98)	-1.78		0.08
Problem behaviour according treatment coordinators (%)					
Internalizing problems	71.0	70.8		.012	0.91
Externalizing problems	77.4	58.3		3.537	0.60
Parent characteristics					
Mean age	43.52 (7.31)	44.44 (7.11)	-0.42		0.68
Female (%)	85.2	77.8		0.405	0.52
Born in the Netherlands (%)	88.5	88.9		4.966	0.42
Net household income (month) (%)				4.190	0.12
Low ( $\leq$ 1400 Euros)	70.8	50.0			
Medium (1400–2300 Euros)	20.8	16.7			
High ( $\geq$ 2300 Euros)	8.3	33.3			
Working status (%)				0.060	0.81
Not employed	51.9	55.6			
Education (%)				2.818	0.24
Low ( $\leq$ lower secondary)	18.5	38.9			
Medium (higher secondary–lower tertiary)	74.1	50.0			
High ( $\geq$ higher tertiary)	7.4	11.1			
Parents with mental health concerns themselves (%)	89.7	86.4		0.131	0.72
Illness severity	0.58 (0.41)	0.80 (0.79)	-1.08		0.29
Family characteristics					
One-parent family (%)	38.5	66.7		3.385	0.07
Two ill parents (%)	31.0	27.3		0.657	0.72

Means (SD) are shown unless otherwise specified

\* $p < 0.05$  (two-tailed)

*Online educational program for parents.* In 52% ( $n = 16$ ) of the children in the experimental group ( $n = 31$ ), parents also participated by completing the online educational program. In all other cases only the children participated in the ‘You are Okay-program. In two families, the parent who participated did not have mental health concerns him/herself. Within the experimental group, no significant differences in the main and intermediate outcomes were found between parents who participated in the online educational program and parents who did not participate for both post-test and follow-up assessments.

**Table 2.** Emotional and behavioural problems in children: Child and parent reported means (SD) and beta's (p-values) for SDQ.

	Child report			Parent report		
	Pre-test (N = 55)	Post-test (N = 48)	Follow-up (N = 44)	Pre-test (N = 41)	Post-test (N = 34)	Follow-up (N = 30)
Total difficulties:		.122 (.295)	.221 (.130)		.392 (.030)*	.427 (.016)*
Beta(p)						
Exp.	15.42 (5.01)	14.00 (5.35)	12.78 (5.09)	20.67 (7.09)	18.45 (6.76)	16.61 (6.89)
Con.	14.04 (6.36)	14.40 (6.07)	15.53 (6.32)	19.82 (4.95)	19.57 (5.32)	20.25 (7.50)
Internalizing scale:		.031 (.817)	.026 (.853)		.091 (.655)	.009 (.970)
Beta (p)						
Exp.	7.32 (3.55)	6.68 (3.03)	5.96 (3.51)	9.83 (4.57)	8.95 (3.44)	8.50 (4.11)
Con.	6.00 (3.60)	5.85 (3.60)	6.00 (3.84)	8.06 (3.21)	7.79 (2.86)	8.17 (3.83)
Externalizing scale:		.131 (.277)	.342 (.011)*		.306 (.193)	.623 (.000)***
Beta (p)						
Exp.	8.10 (3.03)	7.32 (3.64)	6.81 (3.00)	10.83 (3.81)	9.50 (4.22)	7.79 (4.16)
Con.	8.04 (3.70)	8.55 (3.61)	9.53 (4.06)	11.76 (2.77)	11.79 (3.68)	12.15 (3.89)

\*p < .05; \*\*p < .01; \*\*\*p < .001

**Table 3.** Intermediate outcomes reported means (SD) on children's perceived competence, children and parents' perceived social support, perceived parental competence, parental involvement with their child's treatment and positive parenting behaviour.

		Pre-test	Post-test	Follow-up
Children's perceived competence: social acceptance	Exp.	14.87 (3.11)	14.79 (2.33)	15.77 (2.55)
	Con.	15.54 (4.02)	16.65 (3.73)	15.41 (4.14)
Children's perceived competence: global self-worth	Exp.	15.35 (3.64)	15.57 (3.33)	15.73 (2.69)
	Con.	15.63 (3.54)	16.05 (3.25)	15.12 (3.52)
Children's perceived competence: COPMI specific cognitions	Exp.	6.06 (2.45)	5.71 (2.23)	5.26 (2.36)
	Con.	6.54 (3.24)	5.25 (3.18)	5.82 (2.53)
Children's perceived social support	Exp.	107.35 (18.93)	109.39 (15.81)	110.59 (23.43)
	Con.	105.54 (21.53)	106.30 (17.66)	107.76 (19.34)
Parents' perceived social support	Exp.	17.62 (7.98)	19.04 (7.31)	18.30 (7.09)
	Con.	20.69 (6.52)	23.93 (8.34)	21.08 (8.72)
Parental involvement with the child's treatment	Exp.	8.35 (2.12)	8.59 (1.37)	8.22 (1.35)
	Con.	8.94 (1.89)	8.92 (1.66)	8.33 (1.61)
Positive parenting behaviour	Exp.	53.04 (15.59)	46.45 (14.48)	43.70 (12.74)
	Con.	55.94 (16.08)	52.86 (20.08)	51.38 (20.68)

No significant differences were found.

## Discussion

The aim of the present study was to test the effectiveness of 'You are Okay', a support and educational program for children with mild intellectual disabilities and their parents with mental

health concerns. The results showed a positive effect of the program on emotional and behavioural problems in children based on child-self and parental reports. Specifically, children in the experimental group reported lower levels of externalizing problems on the follow-up assessment compared to children in the control group. Parents in the experimental group reported lower levels of child's total problems on both the post-test and follow-up assessment compared to parents in the control group. Moreover, parents in the experimental group reported fewer externalizing problems on the follow-up assessment compared to control group parents. These medium to large effects on the follow-up assessments, for both children and parents, indicated that 'You are Okay' is effective in decreasing children's emotional and behavioural problems based on child-self and parental reports.

This finding corresponds to the outcomes of a recent meta-analysis regarding preventive interventions for children and adolescent of parents with mental illnesses showing small effects on internalizing and overall problems at post and follow-up assessments and small effects on externalizing problems only at follow-up tests. Larger effects were found when both children and parents were addressed (Thanhauser et al., 2017). This might explain our medium to large effect sizes, and stressing the relevance of offering a simultaneous intervention to children and parents. The absence of significant results on the internalizing problem subscale might be due to the often high prevalence of behaviour problems in these children, maybe hindering to reveal effects on internalizing problems (Granic, 2014). However, the lack of significant results on internalizing problems may also be caused by the relatively small sample size: both children and parents in the experimental group did report a non-significant reduction in internalizing problems, whereas scores of children and parents in the control group remained stable over time.

Based on our theoretical model (Riemersma et al., 2015), we expected the program to affect children's perceived competence, children's COPMI-specific cognitions, children and parents' perceived social support, perceived parental competence, parental involvement with their child's treatment and positive parenting behaviour. Our study did not support this for the following possible reasons. First, the Hawthorne effect might have affected the findings due to the extra attention given to the experimental group (McCambridge et al., 2014). Possibly, joining the 'You are Okay' program was effective because both children and parents received extra attention from professionals. The increased attention could have made the children and parents feel empowered and accepted without actually influencing children's emotional and behavioural problems. On the other hand, perceived social support from both professionals and other important people did not change after participating in the experimental group in both children and parents, which seems to be in conflict with the Hawthorne effect. A second explanation for not finding an effect on the proposed intermediate outcomes could be the weak reliability of the used instruments. Several instruments showed suboptimal results with respect to reliability (children's COPMI specific cognitions and perceived parental competence).

However, not finding effects on these intermediate outcomes also raises questions about the theoretical model underlying the 'You are Okay' program. Possibly the intervention goals are not closely enough linked to the intermediate outcomes in this model or the way we assessed the outcomes in our study. Some intermediate outcomes, such as the perceived competence in children, are broad reflections of how people see themselves. Outcomes that developed over a long time-span would probably require more intensive therapy than a relatively short intervention (Bos et al., 2006). Similarly in the study on Dutch support groups for children with average intelligence of parents with mental illnesses, no significant effect was found on children's self-esteem (Van Santvoort et al., 2013). However, Van Santvoort et al. (2013) did

find significant effects on social support and COPMI cognitions in children. Possibly, the questions about COPMI specific cognitions were too abstract for children with mild intellectual disabilities, as they often experience difficulties with recognizing complex emotions (Van Nieuwenhuijzen et al., 2011). The two sessions that were added to the original program about emotions may still be insufficient, or did not address the complexity of emotions sufficiently. An explanation for not finding effects on social support might be the different measurement that we used: Van Santvoort et al. (2013); formulated questions about talking to others about their mentally ill parent and asking for help in relation to that whereas in the present study we used a validated social support instrument. This instrument might have been too general to assess social support in the specific situation of a mentally ill parent. This could have been the case as well for how we measured social support in parents and their involvement in their child's treatment, which was just one question about their involvement in treatment in general. Finally, not finding significant effects on parenting behaviour could be caused by how parenting skills were addressed in the intervention parents completed five themes in three sessions. The main goal of the sessions was to provide insight in the consequences of the parental mental health concerns for children, and to offer parents suggestions for how to interact with their child in a sensitive way. Perhaps we cannot expect that parents immediately change their behaviour after a few assignments.

Nevertheless, significant effects were found on reported emotional and behavioural problems of the participating children. Possibly, it is easier for children with mild intellectual disabilities to answer questions regarding more concrete behaviour using the SDQ, compared to the more abstract concepts as perceived competence. It may have been helpful when we included more direct measures for intermediate outcomes also in terms of concrete behaviour or knowledge, for example a test about the knowledge about parental mental illnesses.

'You are Okay' included also an online educational program for parents to strengthen the program's effectiveness. However, the expected effects of the educational program were not supported in this study. The explanations provided in the previous paragraph may also account for this finding. Moreover, the study sample regarding the online educational program included only the parents who participated in the experimental group causing a reduction in sample size and statistical power. A third explanation could be that both parts of the current program were not sufficiently integrated with each other. The support group and the educational program ran in parallel but were not integrated with joined children and parents' sessions. Possibly, the current program did not include the most important risk and protective factors regarding children's risk for developing problem themselves. Moreover, the parent-child interaction seems to be an important factor which is insufficiently covered in the current program. Including sessions with children and parents together, might increase the program's effectiveness as stated in other studies regarding interventions about parents with mental health concerns (Beardslee et al., 2011).

### *Strengths and limitations*

This study had two key strengths. The first strength pertains to the innovative character of the study caused by the specific population. Although previous research has been conducted separately with children with average intelligence with parents with mental health concerns and children with mild intellectual disabilities and healthy parents, little is known about the specific group of children who experience both risk factors. This is the first study to focus particularly on this high-risk group. The

second methodological strength pertains to the involvement of multiple informants (i.e., children, parents and professionals) that allowed us to examine the results in different ways and with different comparison groups. As opposed to focusing only on one informant or one study population, this broader perspective provides more detailed information.

One of the limitations of this study is the selective study sample. The included children were already in treatment facilities. Many children with mild intellectual disabilities and parents with mental health concerns who are not in treatment facilities were not included in the study. Thus, caution is warranted when generalizing conclusions to the general population of children with mild intellectual disabilities and parents with mental health concerns. Moreover, the relatively small sample size in this study may have decreased the power, as 54 participants were needed to show small to medium effects (Riemersma et al., 2015). And for studying effects of moderating variables, such as gender, age and IQ level, even more participants are required. The present study sample consisted of children with a wide IQ and age range. Further research with larger samples of children with mild non-clinical intellectual disabilities is necessary to draw firmer conclusions about the effects of the 'You are Okay'-program for children with mild intellectual disabilities. Besides, due to a relatively small sample size and small groups of children that could participate in each participating treatment facility, we were not able to match the experimental group and control group on varying levels of severity of the parental mental health concerns or different types of illnesses, nor address these aspects in our statistical analyses. As research has shown that high illness severity of parents is an important risk factor for children (Beardslee et al., 2011; Havinga et al., 2017; Van Santvoort et al., 2014), we recommend to address this factor in future studies regarding the present study population. Another limitation of our study concerns the reliability of the measurement of the level of intellectual (dis)abilities and the presence of mental health concerns in parents. They were not assessed by validated measures in the current study, instead information was given by involved professionals, which may be less accurate than a formal diagnosis or measurement.

### *Implications for practice*

One of the implications for practice is to consider integrating the support group for children and the online educational program for parents more thoroughly in order to possibly improve the current program. For example, a joined session with both children and parents could be added to the program, which may influence the program's effectiveness. Furthermore, as the lack of significant results on the intermediate outcomes yielded discussion about the appropriateness of the theoretical model underlying the intervention, the current program may need extra adaptations to better fit the needs of this population. For example, simply talking about social support and sharing stories within the support group may be insufficient for children with mild intellectual disabilities as they need more assistance in generalizing the use of their social skills and improving their perceived social support in their daily lives (Douma, 2018). More research is necessary to improve the current program for example with more attention for the generalization to children's daily lives.

Furthermore, parental involvement with their child's treatment did not increase, which may be due to the lack of integration of both the children's and parental parts of the program. Actively involving parents in the child support group and/or involving children in the online educational program and/or organize shared sessions, may lead to further improvement of the current program. Implementation of a more systemic approach for children and their parents in treatment facilities



addresses the possible negative effects of parental mental health concerns on their children in their treatment programs. Although treatment facilities increasingly implement a more systemic and family-focused approach in their treatment programs, it seems to be insufficient for this at-risk group of children and their families as a whole. Implementing this systemic approach seems valuable for all social and health settings for children with mild intellectual disabilities in helping children and families with parental mental health concerns. An effective intervention for this specific population could be of potential relevance for health care facilities to improve their current treatment. It could even help to shorten these often expensive forms of treatment. In the long run it helps professionals in health care facilities to include a more systemic and family focused treatment, which will also lead to better involvement of parents within the treatment of their child.

Although more evidence for the effectiveness of the ‘You are Okay’ program is needed, the positive outcomes of the present study on children’s emotional and behavioural problems reported by children and parents shows that the program has the potential to contribute to the ‘care as usual’ offered by specialized institutes. In the long term, this may also help social and health settings improving their treatment and therefore shorten expensive forms of treatment. Future research should include a larger study sample and focus on the working mechanisms to support the current findings. In conclusion, the present study revealed first promising results of the ‘You are Okay’ program for children with mild intellectual disabilities and their parents with mental health concerns.

### **Data availability statement**

Data is on request available by contacting first author.


### **Declaration of conflicting interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### **Funding**

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by ZonMw; under Grant number 729111011; and Antonia Wilhelmina Fonds; under Grant number 131031).

### **ORCID iD**

Ivon Riemersma  <https://orcid.org/0000-0001-6267-5466>

### **References**

- Abidin RR (1983) *Parenting Stress Index (PSI)*. Charlottesville, VA: Pediatric Psychology Press.
- Arnold DS, O’Leary SG, Wolff LS, et al. (1993) The parenting scale: a measure of dysfunctional parenting in discipline situations. *Psychological Assessment* 5(2): 137–144.
- Beardelee WR, Gladstone TR and O’Connor EE (2011) Transmission and prevention of mood disorders among children of affectively ill parents: a review. *Journal of the American Academy of Child and Adolescent Psychiatry* 50: 1098–1109.
- Blok H, Fukkink RG, Gebhardt EC, et al. (2005) The relevance of delivery mode and other programme characteristics for the effectiveness of early childhood intervention. *International Journal of Behavioral Development* 29: 35–47.

- Bos AER, Muris P, Mulkens S, et al. (2006) Changing self-esteem in children and adolescents: a roadmap for future interventions. *Netherlands Journal of Psychology* 62: 26–33.
- De Brock AJLL, Vermulst AA, Gerris JRM, et al. (1992) *Nijmeegse ouderlijke stress index (NOSI): Handleiding [Dutch Version of Parenting Stress Index]*. Amsterdam: Pearson.
- De Wit M, Moonen X and Douma J (2011) *Richtlijn Effectieve Interventies LVB [Guideline Effective Interventions Mild Intellectual Disabilities]*. Utrecht: Landelijk Kenniscentrum LVB.
- Douma J (2018) *Jeugdigen en (jong)volwassenen met een licht verstandelijke beperking: Kenmerken en de gevolgen voor diagnostisch onderzoek en (gedrags)interventies [Youth and Adolescents with Mild Intellectual Disabilities: Characteristics and Consequences for Diagnostics and (Behavioural) Interventions]*. Utrecht: Landelijk Kenniscentrum LVB.
- Dumka LE, Stoerzinger HD, Jackson KM, et al. (1996) Examination of the cross-cultural and cross-language equivalence of the parenting self-agency measure. *Family Relations* 45(2): 216–222.
- Embregts P (2009) Residential treatment following outpatient treatment for children with mild to borderline intellectual disabilities: a study of child and family characteristics. *Research in Developmental Disabilities* 30: 1062–1067.
- Emerson E and Hatton C (2007) Mental health of children and adolescents with intellectual disabilities in Britain. *The British Journal of Psychiatry* 191: 493–499.
- Furman W and Buhrmester D (2009) Methods and measures: the network of relationships inventory: behavioral systems version. *International Journal of Behavioral Development* 33: 470–478.
- Goedhart AW, Treffers F and Van Widenfelt BM (2003) Vragen naar psychische problemen bij kinderen en adolescenten. De Strengths and Difficulties Questionnaire (SDQ) [Asking about psychological problems of children and adolescents. The Strengths and Difficulties Questionnaire (SDQ)]. *Maandblad Geestelijke Volksgezondheid* 58: 1018–1035.
- Goodman R (1997) The strengths and difficulties questionnaire: a research note. *Journal of Child Psychology and Psychiatry* 38: 581–586.
- Granic I (2014) The role of anxiety in the development, maintenance, and treatment of childhood aggression. *Development & Psychopathology* 26: 1515–1530.
- Harter S (1988) *Manual for the Self-Perception Profile for Adolescents*. Denver: University of Denver.
- Havinga PJ, Boschloo L, Bloemen AJP, et al. (2017) Doomed for disorder? High incidence of mood and anxiety disorders in offspring of depressed and anxious patients: a prospective cohort study. *Journal of Clinical Psychiatry* 78(1): e8–e17.
- Hay DF, Pawlby S, Sharp D, et al. (2001) Intellectual problems shown by 11-year-old children whose mothers had postnatal depression. *Journal of Child Psychology and Psychiatry* 42: 871–889.
- Hosman CMH, Van Doesum KTM and Van Santvoort F (2009) Prevention of emotional problems and psychiatric risks in children of parents with a mental illness in the Netherlands: I. The scientific basis to a comprehensive approach. *Australian e-Journal for the Advancement of Mental Health* 8. Available at: [www.auseinet.com/journal/vol8iss3/hosman.pdf](http://www.auseinet.com/journal/vol8iss3/hosman.pdf).
- Jones JL (2012) Factors associated with self-concept: adolescents with intellectual and development disabilities share their perspectives. *American Journal on Intellectual and Developmental Disabilities* 50: 31–40.
- Kaptein S, Jansen DEMC, Vogels AGC, et al. (2008) Mental health problems in children with intellectual disability: use of the Strengths and Difficulties Questionnaire. *Journal of Intellectual Disability Research* 52: 125–131.
- Langemeijer L, Peijnenburg H and Veerman JW (1997) *Het gebruik van vragenlijsten in de gezinsdiagnostiek [Using Questionnaires in Family Diagnostics]*. Pedagogisch Jaarboek [Pedagogical Yearbook]. Delft: Eburon.
- McCambridge J, Witton J and Elbourne DR (2014) Systematic review of the Hawthorne effect: new concepts are needed to study research participation effects. *Journal of Clinical Epidemiology* 67: 267–277.

- Muthén LK and Muthén BO (1998-2017) *Mplus User's Guide. Eighth Edition*. Los Angeles, CA: Muthén & Muthén.
- Muthén BO, Muthén LK and Asparouhov T (2017) *Regression and Mediation Analysis using Mplus. Third Printing*. Los Angeles: Muthén & Muthén.
- Reupert AE, Cuff R, Drost L, et al. (2012) Intervention programs for children whose parents have a mental illness: a review. *The Medical Journal of Australia* 1(1): 18–22.
- Riemersma I and Van Santvoort F (2014) 'Jij bent okay': *Competentietraining voor jongeren met een licht verstandelijke beperking van ouders met psychische en/of verslavingsproblemen. Handboek ['You Are Okay': Competence Training for Children with Mild Intellectual Disabilities of Parents with a Mental Illness. Manual]*. Nijmegen: Pluryn Research & Development.
- Riemersma I, Van Santvoort F, Janssens JMAM, et al. (2015) 'You are Okay': a support and educational program for children with mild intellectual disability and their parents with a mental illness: study protocol of a quasi-experimental design. *BMC Psychiatry* 15: 318.
- Riosa PB, McArthur BA and Preyde M (2011) Effectiveness of psychosocial intervention for children and adolescents with comorbid problems: a systematic review. *Child and Adolescent Mental Health* 16: 177–185.
- Stone LL, Otten R, Ringlever L, et al. (2013) The Parent Version of the Strengths and Difficulties Questionnaire: Omega as an alternative to Alpha and a test for measurement invariance. *European Journal of Psychological Assessment* 29: 44–50.
- Taggart L, Taylor D and McCrum-Gardner E (2010) Individual, life events, family and socio-economic factors associated with young people with intellectual disability and with and without behavioural/emotional problems. *Journal of Intellectual Disability* 14: 267–288.
- Thanhauser M, Lemmer G, De Girolamo G, et al. (2017) Do preventive interventions for children of mentally ill parents work? Results of a systematic review and meta-analysis. *Current Opinion in Psychiatry* 30: 283–299.
- Treffers PhD, Goedhardt AW, Veerman JW, et al. (2002) *Handleiding Competentie Belevingsschaal Voor Adolescenten [Manual Perceived Competence Scale for Adolescents]*. Lisse: Swets Test Publishers.
- Van der Zanden R, Speetjens P, Arntz K, et al. (2010) Online group course for parents with mental illness: development and pilot study. *Journal of Medical Internet Research* 12: e50.
- Van der Zanden R, Speetjens P and Havinga P (2013) *KopOpOuders Zelfhulp. ['KopOpOuders' Parents Self-Help]*. Utrecht: Trimbos-instituut.
- Van Doesum KTM and Hosman CMH (2009) Prevention of emotional problems and psychiatric risks in children of parents with a mental illness in the Netherlands: II. Interventions. *Advances in Mental Health* 8: 264–276.
- Van Eijk LM, Kempen GLJM and Van Sonderen LR (1994) Een korte schaal voor het meten van sociale steun bij ouderen: de SSL12-I [A short scale for measuring social support in the elderly: the SSL 12-I]. *Gerontologie en Geriatrie [Gerontology and Geriatrics]* 25: 192–196.
- Van Nieuwenhuijzen M, Orobio de Castro B, Wijnroks L, et al. (2004) The relations between intellectual disabilities, social information processing, and behavior problems. *European Journal of Developmental Psychology* 1: 215–229.
- Van Nieuwenhuijzen M, Vriens A, Scheepmaker M, et al. (2011) The development of a diagnostic instrument to measure social information processing in children with mild to borderline intelligence. *Research in Developmental Disabilities* 32: 358–370.
- Van Santvoort F and Riemersma I (2019) Children with mild intellectual disabilities and parents with a mental illness or substance use disorder: a literature review and file study in a clinical sample. *Onderzoek & Praktijk [Research and Practice]* 17: 6–13.
- Van Santvoort F, Hosman CMH, Van Doesum KTM, et al. (2014) Effectiveness of preventive support groups for children of mentally ill or addicted parents: a randomized controlled trial. *European Child & Adolescent Psychiatry* 23: 473–484.

- Van Santvoort F, Hosman CMH, Van Doesum KTM, et al. (2013) Children of mentally ill or addicted parents participating in preventive support groups. *International Journal of Mental Health Promotion* 15: 198–213.
- West SG, Finch JF and Curran PJ (1995) Structural equation models with non-normal variables: Problems and remedies. In: Hoyle E (ed) *Structural Equation Modeling: Concepts, Issues, and Applications*. Thousand Oaks, CA: Sage, pp. 56–75.