Bilaga 6

Program för att förebygga psykisk ohälsa hos barn, rapport 339 (2021)

Bilaga 6 Sammanställning av ingående studier

Innehåll

Föräldraskaps- och familjestödsprogram

Beardslee's Family Intervention (Family Talk Intervention, FTI)

Table Beardslee's Family Intervention (Family Talk Intervention, FTI).

Authors **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
Beardslee 2007 [1] USA	***Aim*** Efficacy ***Study design*** RCT, individual level ***Prevention level*** Selective ***Setting*** Research clinic ***Population*** Families from a large, prepaid HMO in the Northeast of USA (50% of sample). The remainder was recruited by other means (referral, advertisements etc.) ***Inclusion criteria*** At least one child 8–15 years At least one parent had experienced an episode of mood disorder in the 18 months before contact ***Exclusion criteria*** Parental schizophrenia Child had a current or past history of MDD	***Program deliverer*** 4 licensed social workers or clinical psychologists after extensive training ***Program extent*** Nb sessions: 6–8, including sessions for the parent, the child and the family ***Participants*** n=59 families ***Dropout rate at follow-up*** n=6/97 parents at T6 n=14/78 children at T6	***Control condition*** Lecture intervention (LI) ***Deliverer*** The author ***Description*** 2 meetings in a group format without children present. The lecture was based on the same construct as the FTI ***Participants*** n=48 families ***Dropout rate at follow-up*** n=8/76 parents at T6 n=4/50 children at T6	***Outcome*** Incidence of MDD Child internalizing symptoms ***Measures*** SADS YSR and YASR ***Results*** Both groups improved, ns between groups No difference in rate of MDD ***Attendance rate*** Mean 6.7 ***Program integrity*** FTI: 86% for family meeting and 92% for the child meeting rated on 37 sessions from 10 families LI: 95%

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	Length of follow-up (months) 6 assessments up to an average 53 months from baseline (T6)			
Giannakopoulos 2021 [2] Greece	***Aim*** Efficacy ***Study design*** RCT, individual level ***Prevention level*** Selective ***Setting*** The Child Psychiatry department at the University of Athens. Recruitment from outpatient mental health in the catchment area ***Inclusion criteria*** Parents with a single episode or recurrent MDD (ICD-10) and on treatment for at least 3 months Not bipolar disease or schizophrenia At least one child 8–16 years who was not on treatment for any mental disorder ***Length of follow-up*** 18 months after baseline	***Intervention*** FTI + a guidebook with information and advice on how to talk about depression with children ***Program deliverer*** Mental health professionals with extensive training om the intervention and supervised by trainers ***Program extent*** 6–8 weekly or fortnightly sessions, Time/session: 60 min Duration: 6–18 weeks ***Participants*** n=30 families (53% girls and 80% mothers) Child mean age: 11.7 (2.6) Parent's educational level: 73% middle-high SES: 80% middle-high ***Dropout rate*** 2/30 families	***Control condition*** LTC (Let's talk about the children) + the guidebook ***Program deliverer*** Mental health professionals with extensive training om the intervention and supervised by trainers ***Program extent*** Nb sessions: 2 Time/session: 45 min Duration: 2 weeks ***Participants*** n=32 families (41% girls, 81% mothers) Child mean age: 12.3 (2.7 Parent's educational level: 88% middle- high SES: 65% middle – high ***Dropout rate*** None	***Outcome*** Emotional/behavioral problems for the child Child symptoms of depression and anxiety Child QoL Parenting ***Measures*** SDQ total CDI SCARED KIDSCREEN-27 5 items from SAS-RS ***Results*** No significant differences between groups. Both groups improved over time ***Attendance rate*** NR ***Program integrity*** NR
Punamäki 2011 [3] Finland	***Aim*** Effectiveness ***Study design*** RCT, individual level	***Intervention*** FTI + a guidebook with information and advice on how to talk about depression with children	***Control condition*** LTC (Let's talk about the children) + the guidebook ***Deliverer***	***Outcome*** Child cognitive attributions Depressive symptoms Emotional symptoms

Authors **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
	Prevention level Selective ***Setting*** Psychiatric and mental health clinics in Finland ***Population*** Parents being treated for mood disorder. Recruited at 16 health care centers in 8 regions in Finland ***Inclusion and exclusion criteria*** At least one child not being treated for a psychiatric disorder and 8–16 year in the family Parents with schizophrenia were excluded ***Length of follow-up (months)*** Short-term: 10 months Longterm: 18 months	***Program deliverer*** NR ***Program extent*** Nb sessions: 6, separate sessions for the child and the parent + one family session Time/session: 30–45 min Duration (weeks): 8 ***Participants*** n=53 families ***Characteristics of parents (whole sample)*** University education: app 20% Employed: more than 50% Civil status: divorced 30% (FTI) vs 13.7% (LTC) Duration of parent depression: app 40% >2 years ***Dropout rate at follow-up*** 26.4% at 10 months and 24.5% at 18 months	The clinician ***Description*** Brief psychoeducational support for the patient, 1–2 child focused sessions, 15–45 min ***Participants*** n=56 families ***Dropout rate at follow-up*** 29.8% at 10 months and 22.8% at 18 months	***Measures*** CASQ-R CDI or BDI (teenagers) SDQ Emotional subscale ***Results*** Positive cognitive attributions increased in the LTC group but not the FTI Positive cognitive attributions mediated preventive effect on child symptoms ***Attendance rate*** NA ***Program integrity*** NR

NR = Not reported; **SAS-RS** = Social Adjustment Scale Self-Report; **SDQ** = Strengths and Difficulties Questionnaire; **YSR** = Youth Self Report (ungdomsversion av CBCL)

Coping and Promoting Strength Program (CAPS)

Table Coping and Promoting Strength Program (CAPS).

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
Ginsburg 2009 [4] USA	***Aim*** Pilot efficacy ***Study design*** RCT, individual level ***Prevention level*** Selective ***Setting*** One research clinic in Baltimore ***Population*** Self-selected families with a biological parent with an anxiety disorder according to DSM-IV and a child 6–13 years ***Inclusion and exclusion criteria*** Child did not fulfill criteria for an anxiety diagnosis ***Length of follow-up (months)*** Posttest Short-term: 6 and 12 months	***Program deliverer*** Two postdoctoral psychology fellows and the main author ***Program extent*** Nb sessions: 6–8 plus 3 optional boosters, 2 sessions for the anxious parent alone, the remaining sessions for all interested family members Time/session: 60 min Duration (weeks): 8 ***Participants*** n=20 children (50% girls) Mean age: 9.2 years Ethnicity: 20% minorities Parent education: 75% at least college Family annual income: 65% above 80 K$ Parent currently on treatment: 45% ***Dropout rate at follow-up*** n=4 at 12 months	***Control condition*** Wait list ***Participants*** n=20 (40% girls) Mean age: 8.7 years Ethnicity: all Caucasian Parent education: 85% at least college Family annual income: 70% above 80 K$ Parent currently on treatment: 70% ***Dropout rate at follow-up*** n=3 at 12 months	***Outcome*** Incidence of anxiety disorder; severity of child anxiety symptoms ***Measures*** ADIS-C/P, SCARED ***Results*** Onset of child anxiety disorder at 12 months FU: I: 0 C: 6 (30%) p<0.01 Severity of symptoms Significant difference for parent (d=0.82) and evaluator assessment (d=1.99) but not for self-report ***Attendance rate*** 7.47 (5–8) ***Program integrity*** Not formally evaluated

Ginsburg 2015/2020 [5] [6] USA	***Aim*** Efficacy ***Study design*** RCT, individual level ***Prevention level*** Selective ***Setting*** One research clinic in Baltimore ***Population*** Self-selected families with a biological parent with an anxiety disorder according to DSM-IV and a child 6–13 years ***Inclusion and exclusion criteria*** Child did not fulfill criteria for an anxiety diagnosis ***Length of follow-up (months)*** Posttest Short-term: 6 and 12 months Longterm: 72 months	***Program deliverer*** Trained therapist ***Program extent*** Nb sessions: 8 plus 3 optional boosters. 2 sessions for the anxious parent alone, the remaining sessions for all interested family members Time/session: 60 min Duration (weeks): 8 ***Participants*** n=70 children (63% girls) Mean age: 8.5 years Ethnicity: 42% minorities Parent education: 61% at least college Family annual income: 40% above 80 K$ Parent currently on treatment: 67% ***Dropout rate at follow-up*** 13/70 at 1 one year (18%) 11/70 at 72 months (16%)	***Control condition*** Attention-control mimicking usual care ***Description*** 36-page pamphlet containing information about anxiety disorders and treatment ***Participants*** n=66 children (48.5% girls) Mean age: 8.9 years Ethnicity: 43% minorities Parent education: 56% at least college Family annual income: 45% above 80 K$ Parent currently on treatment: 41% ***Dropout rate at follow-up*** 4/66 at 12 months (6%) 12/66 at 72 months (18%)	***Outcome*** Incidence of anxiety disorder Severity of child anxiety symptoms ***Measures*** ADIS SCARED ***Results*** <u>Onset of child anxiety disorder</u> 12 months FU: I: n=3 C: n=19 OR=8.54 (95% CI, 2.27 to 32.06) 72 months FU: I: 52% C: 58% NS <u>Symptom severity</u>: Posttest: Both groups had improved but the intervention group significantly more. 1 year FU: further improvement in the intervention group but not the control group (d=0.57) 72 months FU: NS ***Attendance rate*** Average 6.6 (0–8) and 1.2 (0–3) for the boosters ***Program integrity*** 97.5% according to independent evaluators of 25% of the recorded sessions

Connect

Stattin 2015 [7] Högström 2017 [8] Sweden See table for KOMET				

COPE

Table Community Parent Education Program (COPE).

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
Cunningham 1995 [9] Canada	***Aim*** Examine the efficacy of a large group community-based version of a clinic based individual family parent training program ***Study design*** RCT, individual level ***Prevention level*** Indicated ***Setting*** Junior Kindergarten in all public and private schools in Hamilton, Canada	***Program*** I1: Individual COPE I2: Group COPE ***Program deliverer*** I1 and I2 3 early childhood educators with 3 months-13 years of parent training experience and 1 behavior therapist with 6 years' experience that participated in a 15 week training program. ***Program extent*** I1 and I2 Nb sessions: 11–12 Time/session: NR	***Control condition*** Waiting list ***Participants*** n=56 (53.6% girls) Mean age: 54.1 months Ethnicity: 17.9% immigrants	***Outcome*** Behavior problems and parenting-child interactions ***Measures*** Home Situations Questionnaire, CBCL, Home observation of parent and child behavior ***Results*** I2 significantly greater improvement from baseline to 6 months FU compared to I1 for Home Situations Questionnaire.

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	Population Families with 5–6 year old children ***Inclusion and exclusion criteria*** Inclusion: >1.5 SD on Home Situations Questionnaire ***Length of follow-up (months)*** Posttest and 6 months postintervention	Duration (weeks): 12 weeks ***Participants (nb randomized)*** I1 n=46 (43.5% girls) Mean age: 52.3 months Ethnicity: 15.2% immigrants I2 n=48 (50% girls) Mean age: 54.2 months Ethnicity: 17% immigrants ***Dropout rate at follow-up (whole sample)*** 24% at 6 months follow up. No significant difference between groups		No significant differences between groups for CBCL and home observations. ***Attendance rate*** No significant difference in attendance between I1 and I2. ***Program integrity*** The execution of every session was monitored and were periodically observed by the investigators.
Stattin 2015 [7] Högström 2017 [8] Sweden See table for KOMET				

CBCL = Child Behavior Check List

Family Check Up

Table Family Check Up.

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
Berkel 2021 [10] USA	***Aim*** Effectiveness of Family Check-Up 4 Health ***Study design*** RCT ***Prevention level*** Selected ***Setting*** Phoenix, Arizona, US ***Population*** Children and caregivers were primarily Latino, of low SES, the majority of children received Medicaid. ***Inclusion and exclusion criteria*** Children 5–12 years of age with elevated BMI (≥85 percentile) ***Length of follow-up (months)*** 3, 6 and 12 months	***Program deliverer*** FCU4Health coordinators with various levels of training ***Program extent*** FCU adapted for delivery in primary care and targeting obesogenic health behaviors + information booklet about resources in the community to support physical health. Dose: target ≥25 contact hours Duration: 6 months ***Participants*** n=141 (48% girls) Mean age: 9.5 years Ethnicity: Latino 77% African-American 7% Caregiver age: mean 39 years ***Dropout rate at follow-up*** n=36 (26%)	***Control condition*** Usual care + information booklet ***Deliverer*** NR ***Participants*** n=99 (51% girls) Mean age:11 years Ethnicity: Latino 72%; African-American 7% Caregiver age: 38 years ***Dropout rate at follow-up*** n=15 (15%)	***Outcome*** Conduct and emotional problems, parenting ***Measures*** SDQ conduct problems and emotional problems, Proactive parenting, Limit setting, Parental warmth ***Results*** Significant difference between groups in conduct problems, (d=0.19) and emotional problems, (d=0.19) at 12 months follow up through parenting and self-regulation. Parenting only measured at 3 months follow up and improved. ***Attendance rate*** Parents on average participated in 1.7 feedback sessions and 1.7 parenting sessions ***Program integrity*** COACH composite score M=4.5. Satisfactory

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
Connell 2007 [11] Connell 2017 [12] Van Ryzin 2013 [13] Connell 2016 [14] USA	***Aim*** Efficacy of FCU. ***Study design*** Cluster RCT, classroom level ***Prevention level*** Universal with selective and indicated components according to needs ***Setting*** Family Resource Centre (FRC) in three middle schools in an ethnically diverse metropolitan are in the Northwest region of US ***Population*** 998 adolescents in 6th grade and their families Ethnicity: Caucasians 42.3%, African Americans 29.1% Biological fathers present in 58.6% of families SES: Annual median income was 30–40000$ ***Length of follow-up*** up to 18 years	***Program deliverer*** Parent consultant ***Program extent*** <u>Universal:</u> FRC in each school offering brief parent consultations, feedback to parents on their student's behavior at school, and access to videotapes and books - to support positive parenting. Nb sessions: six in-class-lessons for the children. <u>Selective and indicated intervention to families</u> Nb Sessions: 3, interview, assessment and feedback. Families of high-risk youths, determined by teacher-ratings, were offered the FCU in 7th and 8th grades. Time/session: 2½ Mean 8.9 hrs contact for parents Duration (weeks): Contact when needed during grade 7 and 8. ***Participants*** K=3 schools n=500 (47.3% girls) Mean age:11 years Received universal intervention n=500 Received indicated intervention in middle school, n=115	***Control condition*** Typical school-based services ***Deliverer*** Guidance counselor or school psychologist ***Description*** CAU ***Participants*** K=3 schools n=498 (y 47.3% girls) Mean age:11 years ***Dropout rate at follow-up*** n=99 (20%) at 18–19years n=120 (24%) at 28–30years n=99 (20%) at age 18–19 n=122 (24%) at age 28–30	***Outcome*** Depression Suicide risk Problem behavior Arrest records ***Measures*** Self-report on anti-social behavior and drug use Arrest records from age 11 to 17 years CIDI, BSI, CDI ***Results*** <u>All (ITT analysis)</u> NS difference in problem behavior, number of arrests and suicide risk at 5–8 years follow-up NS difference between groups in depression last year and life-time as well as in suicide risk at 18 years follow-up. <u>Engagers (CACE-analysis of intervention engagers compared to predicted control engagers)</u> Significantly less antisocial behavior, use of drugs, less risk for substance use diagnoses and police arrests at 5–8 years FU Lower levels of suicide

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
		Received indicated high school intervention, n=224 ***Dropout rate at follow-up*** n=106 (21%) after 8 years, at age 18–19 n=126 (25%) after 18 years (Connell, 2017 [54]) n=130 (26%) at age 28–30 (Connell, 2016 [64], suicide-risk)		risk at 7–8 years FU and (controlling for earlier suicide risk)18 years FU. ***Attendance rate*** Ca 23% of the families engaged in the selected/indicated levels. ***Program integrity*** Satisfactory
Dishion 2008 [15] (förra rapporten) Dishion 2014 [16] Shelleby 2018 [17] Reuben 2015 [18] Pelham 2017 [19] Shaw 2009 [20] Wang	***Aim*** Efficacy of FCU and tailored parent management training (Early Step Study) ***Study design*** RCT ***Prevention level*** Selective and indicated ***Setting*** Metropolitan areas in US ***Population*** Parent-child dyads receiving assistance from the Women, Infants, and Children (WIC) Nutritional Supplement recruited between 2002 and 2003. n=731 dyads (99% mothers) 49.5% girls Ethnicity: 50% European American, 28% African American.	***Program deliverer*** Parent consultant Blinded home visitors performed assessment with video-registration etc. before randomization (2.5 hrs), and at follow-ups. ***Program extent*** At start: 3 sessions Follow-up: 12 possible sessions; in average /family = 3.32 sessions Time/session: 2½ h FCU, and of those who did, a majority also engaged in some form of follow-up interventions. at each age and (a) engaged in an FCU feedback session, (b) engaged in follow-up sessions, and (c) in parentheses, the average number of follow-up sessions, respectively: age 2:	***Control condition*** WIC as usual ***Deliverer*** Blinded home visitors performed assessment with before randomization (2.5 hrs), and at follow-ups. ***Participants*** n=364 (y% girls) Mean age: 29 months ***Dropout rate at follow up*** n=40 (11%) at age 3 n=71 (19.5%) at age 10.5 n=75 (21%) at age 14.5 At 7 years 54% had teacher ratings but no significant differences between families with teacher ratings versus those without, with respect to demographic characteristics or other study variables.	***Outcome*** Children's problem behavior Suicide-related behaviors (ages 7–14) Parental practices ***Measures*** ECBI CBCL, internalizing and externalizing behavior, CBCL-TRF, oppositional behavior, depressed/withdrawn Direct observations of parental positive behavior support DISC-IV ***Results*** Significant differences in change from baseline in: Parental positive behavior support at age 3 (d=0.14), Externalizing problems at

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
2019 [21] Connell 2019 Smith 2014 [22] Chiapa 2015 [23] Gardner 2009 [24] Smith 2013 [25]	SES: >2/3 of families had an annual income of <$20,000 ***Inclusion criteria*** Child age: between 2 and 3 years Risk factors for future behavior problems: socioeconomic (low education, low family income), family (maternal depression), and/or child (child behavior problems) ***Length of follow-up (months)*** Up to 12.5 years	76%, 72% (3.4); age 3: 69%, 70% (3.1); age 4: 70%, 74% (3.5). Duration <1 year ***Participants*** n=367 Mean age: 29 months ***Dropout rate at follow up.*** n=32 (9%) at age 3 n=87 (24%) at age 10.5 n=75 (20%) at age 14.5		age 5 (d=0.30) but not age 14 reported by parents Oppositional behavior at age 7.5 (d=0.26) but not at age 14 reported by teachers Internalizing problems at age 4 (d=0.21) but not age 7.5 reported by parents: No significant effect on teacher reported depressed/withdrawn behavior at age 7.5 and 14 or self or parent/teacher reported suicide risk at age 7.5 to 14. ***Attendance rate*** 59 to 77.9% ***Program integrity***. Videotapes of feedback and follow-up were reviewed and evaluated to certify quality and program integrity.
Smith 2015 [26] USA	***Aim*** Effectiveness of FCU intervention in Community mental health (CMH) ***Study design*** RCT at therapist level ***Prevention level***	***Program deliverer*** Therapist ***Program extent*** FCU prior to additional services. Nb sessions: 3 (initial interview, homebased ecological assessment of family	***Control condition*** TAU prior to additional services. Assessment with questionnaires before randomization and after the study 6 months later ***Deliverer*** Therapist	***Outcome*** Parents and youths self-report on conduct problems Effective and positive parenting ***Measures*** SDQ conduct problems

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	Selective-indicated ***Setting*** Three CMH agencies serving children and families in Multnomah County, Oregon ***Population*** Ethnically, culturally, and economically diverse families and children ***Participants*** Mean age: 11.6 years, 49% were female Primary caregivers were biological mothers (78%) or fathers (12%). Ethnicity: European American (65%), African American (16%) SES: average annual income before taxes was $16,884 ***Inclusion criteria*** Children 5–17 years ***Exclusion criteria*** severe developmental disabilities ***Length of follow-up*** 7.5 months after post assessment	functioning and caregiving and follow-up feedback). Therapist selected interventions based on ecological assessment data and family's preferences on intervention options presented in the feedback session. Time/session: 50 minutes Duration: 6 months ***Participants*** n=43 of 51 families completed pre-treatment assessment, 33 completed FCU (engager). Analysed ITT=43 ***Dropout rate at follow up*** n=10 (23% at 7.5 months follow up	***Description*** Community treatment as usual with a family-based approach to youth mental health. Three 50 minutes sessions ***Participants*** n=28 out of 31 completed pre-treatment assessment and were included n=20 attended ≥3 sessions ***Dropout rate at follow up*** n=8 (18%) at 7.5 months after post-assessment	Positive behavior support, PBS Positive proactive parenting, PPP Negative parenting behaviors, NPB ***Results*** ITT Conduct problems, self-report, d=0.33 at posttest, NS at follow-up. Conduct problems, caregiver report: NS Parenting practices: No difference Engagers Conduct problems, self-report: d=0.50 posttest, NS at follow up Conduct problems, caregiver report: d=0.36 posttest, NS at follow up Parenting practices: no difference . ***Attendance rate*** 77% ***Program integrity*** COACH composite score

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
				was in the good range (ICC=0.73)
Stormshak 2011 [27] Van Ryzin 2012 [28]	***Aim*** Efficacy of the FCU EcoFIT model to children and families ***Study design*** Cluster RCT ***Prevention level*** Universal and selective ***Setting*** Public middle schools in urban area, US, where 35–89% of families were entitled to free lunch ***Population*** At-risk population with 593 adolescents in 6th grade and their families, 49% females, Mean-age 11.9 years Ethnicity: European American (36%) Latino/Hispanic (18%) African American (16%) ***Inclusion criteria*** 6th grade students. ***Length of follow-up*** 3 years	***Program deliverer*** Parent consultants who were experienced full-time university of Oregon employees ***Program extent*** <u>Universal intervention</u> One session in 6th grade and access to Family Resource Centre <u>Selective intervention</u> FCU, 3 sessions in 7th and 8th grade. Average intervention time: 2.5 hrs/family Duration: 1–2 school years ***Participants*** n=386 ***Dropout rate at follow up*** n=99 (26%) at 3 years	***Control condition*** Regular services offered by the schools ***Participants*** n=207 ***Dropout rate at follow up*** n=35 (17%) at 3 years	***Outcome*** Antisocial behavior, Substance use ***Measures*** Youth self-report surveys ***Results at follow up*** <u>Engagers (CACE analysis comparing intervention engagers with predicted control engagers)</u> Significant difference in antisocial behavior in grade 8 (d=1.42) and grade 9 (d=0.86) and substance use in grade 8 (d=0.75 to 1.69) and grade 9. ***Attendance rate*** 51% received consultation from parent consultant, and 42% full FCU, whereof 29% received additional services based on the feedback ***Program integrity*** NR
Stormshak 2010 [29] USA	***Aim*** Efficacy of the FCU (part of the study [59]	***Program deliverer*** Parent consultant ***Program extent***	***Control condition*** See [59] ***Participants***	***Outcome*** Self-regulation depression ***Measures***

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome measures
	Study design RCT ***Prevention level*** Universal and selected ***Setting*** Three public middle schools in urban area, US ***Population*** n=377 adolescents and their families during 6th grade 49% females. Ethnicity: White (36%), Latino/Hispanic (18%), African American (16%), SES: The average household was $30,000 to $40,000/year average education was a high school degree. ***Inclusion criteria*** 6th grade students ***Length of follow-up*** 3 years	See [59] Median time in the FCU was 168 min. 80% of contacts during grade 7 and 8. ***Participants*** n=277 families ***Dropout rate at follow up*** 77% at final follow up for the whole sample	n=100 families ***Dropout rate at follow up*** NR	Modified ATEMP CDI ***Results*** FCU increased self-regulation from 6th to 7th grade. This was associated with decreases in youths' depressive symptoms from 6th to 8th grade with a small to medium effect size. ***Attendance rate*** 46% of 277 families received consultation from a parent consultant 38% received the full FCU intervention, and of these 24% received additional follow-up work after the feedback. ***Program integrity*** Supervision weekly by a doctoral-level practitioner and included feedback to consultants.
Shaw 2006 [30] Gardner 2007 [31] (båda från förra rapporten)	***Aim*** Effectiveness of the FCU in reducing child conduct problems and in sustaining maternal involvement ***Study design*** RCT	***Program deliverer*** Therapist ***Program extent*** Nb sessions: 3+0-6 Time/session: 2½ h First, 2.5-hr home visit + 2 feedback sessions, and then up	***Control condition*** WIC as usual ***Description*** Same assessments as in intervention group (observation tasks and questionnaires)	***Outcome*** Child behavior and conduct problem Parenting skills ***Measures*** CBCL- subscales Destructive and

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
USA	***Prevention level*** Selective/indicated ***Setting*** WIC sites in metropolitan, Pittsburgh, PA, USA ***Population*** 120 mother–son dyads Families with low income, over half were single parents, and half were African American ***Inclusion*** Family with a son 17 to 27 months old, and additional criteria in two of the following three areas: sociodemographic, family, and child risk for conduct problems. ***Length of follow-up*** 12 and 24 months	to 6 follow-ups, Mean nb face-to-face sessions = 3.26 (range 2–8) Weekly face to face 1 hr; monthly telephone ½ hr Duration not stated, but less than one year. ***Participants*** n=60 (0% girls) Mean age: 23.7 months Mothers' mean age: 26.2 years Ethnicity: European American 33%, African American 54% ***Dropout rate at follow up*** 3/60 at 12 months 7/60 at 24 months	***Participants*** n=60 (0% girls) Mean age: 23.5 months Mothers age: 28.2 years Ethnicity: European American 49%, African American 40% ***Dropout rate at follow up*** 5/60 at 12 months 4/60 at 24 months	Aggression, Parent-child interactions through video observation ***Results*** CBCL Destructive Scale significantly different At 12 mo, d=0.64 At 24 mo, d=0.45 No difference for CBCL aggression Difference between groups in proactive and positive parenting from baseline to 12 months follow up. No difference in negative parenting. ***Attendance rate*** 90.8% ***Program integrity*** Consultants trained for 2.5–3 months. Certification by reviewing video of feedback.
Garbacz 2020 [32] USA	***Aim*** Efficacy of the Family Check-Up (FCU) initiated during kindergarten ***Study design*** RCT ***Prevention level***	***Program deliverer*** Teacher in Kindergarten Therapists- psychologists at doctoral level ***Program extent*** Total treatment time averaged 204.90 min The average family	***Control condition*** Business-as-usual ***Deliverer*** School, Mental health service ***Description*** Traditional support from schools (e.g., behaviour intervention plans)	***Outcome*** Child behavior and emotional problems ***Measures*** Strengths and Needs Survey (SANA) ***Results***

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	Universal ***Setting*** An urban city and surrounding suburban areas in the Pacific Northwest region of the United States ***Population*** Primary caregivers and teachers of 365 children in early elementary school Kindergarten teachers (n=16) primarily reported were: white (69%), female (100%), and completed a master's degree (87%). Age of children M=5.45, 59% of children white. 52–69% of children in preschool. High school highest level of education by 25% of primary caregivers; 13% completed less than a high school degree, 24% had college education. ***Length of follow-up*** 1–2 years	received 4.89 total contacts ***Participants*** n=190 (44.7% girls) Mean age: 5.52 In preschool 52.6% Ethnicity: White 59.1%, Latino 13.4% SES: < High school 10.5% ***Dropout rate at follow up*** Lacking data First grade n=41 (22%) Second Grade n=56 (29%) Missing data n=14 (7%)	and support outside of school (mental health support). ***Participants*** n=175 (45.7% girls) Mean age: 5.58 In preschool 68.6% Ethnicity: White 58%, Latino 13.4% SES: High school 16.5% ***Dropout rate at follow up*** Lacking data First grade n=35 (20%) Second Grade n=48 (27%) Missing data n=11 (6%)	Significant difference in teacher-reported emotional and behaviour problems at 1st grade: Hedges' g= −0.28 At 2nd grade Hedges' g= −0.22 ***Attendance rate*** 75% of families agreed to participate in the FCU and completed the feedback session. ***Program integrity*** COACH rating system was used to test teacher's program integrity, before they were authorized to use the program independently
Ghaderi 2018 [33] Sweden	***Aim*** Effectiveness ***Study design*** RCT comparing two intervention methods.	***Program deliverer*** Professionals working within the Swedish Social services ***Program extent*** Adapted for Sweden: time-out was excluded, more focus on	***Control condition*** iComet ***Deliverer*** Secure website individually to parents.	***Outcome*** Externalizing behaviors Parental practice ***Measures*** DBD SDQ

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome measures
	Prevention level Indicated ***Setting*** Socioeconomically diverse areas in Gothenburg, Sweden ***Population*** Families with children (10–13 years old) with conduct problems ***Inclusion and exclusion criteria*** SDQ conduct problems above a cutoff based on the ratings of parents or their teacher ***Length of follow-up (months)*** 1 and 2 years	antecedents of behavioral problems, clear expectations negotiated between the parent and the child, as well as efficient prompts and when needed both the parent and child taking a break from the acute situation. Nb sessions 3 + 2–22 Time/session – not reported Duration 10 weeks n=22 families (20.8%) received only the assessment part of the FCU (3 sessions). n=84 (79.2%) families received the FCU parent training (mean 5.45 attended sessions, range 2–22) ***Participants*** n=122 n=106 families engaged in the FCU intervention ***Dropout rate at follow up*** n=38 (31%) at 12 months n=43 (35%) at 24 months	***Program extent*** 7 sessions for 10 weeks ***Description*** Of the 109 families 67 families (61%) engaged in the intervention. The mean number of completed sessions and tasks (out of 15) was 7.7 (SD=5.0) ***Participants*** n=109 (y % girls) ***Dropout rate at follow up*** n=53 (49%) at 24 months n=47 (43%) at 24 months	PKMS ***Results*** Difference in parent reported SDQ conduct problems, d=0.30 at posttest but not at follow up Ns differences on the other SDQ scales and DBD. No difference in parental practices ***Attendance rate*** 67% completed FCU ***Program integrity*** COACH composite score (M=5.2, SD=0.79), all represent adequate program integrity ratings

ATEMP = Early Adolescent Temperament Questionnaire; **BSI** = Brief Symptom Inventory; **CBCL** = Child Behavior Check List; **CBCL-TRF** = Child Behavior Check List-Teacher's Report Form; **CIDI** = Composite International Diagnostic Interview; **DBD** = Disruptive Behavior Disorders Rating Scale; **ECBI** = Eyberg Child Behaviour Inventory; **PKMS** = Parental knowledge and monitoring scale; **SDQ** = Strengths and Difficulties Questionnaire

Komet

Table Komet.

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
Forster 2010 [34] Sweden	***Aim:*** Efficacy of Komet ***Study design*** Cluster RCT at school level ***Prevention level*** Indicated ***Setting*** Schools from socioeconomic diverse areas in the Stockholm region (index 46–144) ***Population*** 1–2nd grade students Gender: 14% girls Mean age: 8.4 years (SD 0.6 years) Special education needs: 25% ***Inclusion and exclusion criteria*** Classes in regular education settings with at least one student with externalizing behavior problems as reported by teachers. ***Length of follow-up (months)*** Posttest and 14 months post pre-test	***Program deliverer*** Teachers ***Program extent*** Nb sessions: M=15 lessons implemented Time/session: not reported Duration: not reported although "post-test" reported as 6 months ***Participants*** k=26 schools n=60 ***Dropout rate at follow-up*** n=8 (13%) at 14 months	***Control condition*** CHARLIE ***Deliverer*** Teachers ***Description:*** Groups of 15–25 students. Skills discussed, modeled and roleplayed during one lesson per week. Skills include for example giving complements, receiving criticism, listening, conflict resolution, decision-making. Program based on a manual containing 74 lesson plans focused on social emotional learning. ***Participants*** K=12 schools/classes n=40 ***Dropout rate at follow-up*** n=6 (15%) at 14 months	***Outcome*** Student externalizing behaviors (primary) Hyperactivity and peer problem constructs (secondary) ***Measures*** Continuous event recordings of externalizing behavior during a 4–5 hour observation session Time on task was recorded through time sampling during 40 minutes of deskwork every 30 seconds. ***Result at follow up*** Externalizing behavior d=0.62, p=0.05 Time on task: No interaction effect

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
Ghaderi 2018 [33] See table for FCU				
Kling 2010 [35] Sweden	***Aim*** Compare effectiveness of two versions of Komet for parents ***Study design*** RCT ***Prevention level*** Indicated ***Setting*** Social services ***Population*** Parents of children aged between 3 and 10 years ***Inclusion criteria*** Conduct problems at a clinical level (score >90th percentile on the Impact of burden scale of SDQ) No other ongoing psychosocial intervention ***Length of follow-up (months)*** 6 months	***Program deliverer*** Social services ***Program extent (PMT-P)*** Nb sessions: 11 Time/session 2.5 hours Duration (weeks): not reported ***Participants*** n=58 (43% girls) Mean age: 6 (2.4) Ethnicity: 22% immigrant parents SES: 35% of mothers with higher education; 29% of fathers with higher education Other characteristics: 24% single parent home ***Dropout rate at follow up*** n=6 (10%) at 6 months.	***Control condition*** PMT-S ***Deliverer*** Social services ***Description*** Same intervention with 1 7-hour session and a self-help schedule over 11 weeks. ***Participants*** n=61 (39% girls) Mean age: 6.1 (2.3) Ethnicity: 23% immigrant parents SES: 41% of mothers with higher education; 38% with fathers with higher education Other characteristics: 25% single parent home ***Dropout rate at follow up*** n=12 (19.6%) at 6 months.	***Outcome*** Child behavior Parenting style ***Measures*** Parent Daily Report (PDR) ECBI Social Competence Scale-Parent (P-Comp) Parent Practices Interview (PPI) ***Results:*** Significant between-group effects for PDR (d=0.38) and ECBI PS (d=0.62) both favoring PMT-P compared to PMT-S. No other significant between group differences.

Stattin 2015 [7] Högström 2017 [8] Sweden	***Aim*** Evaluate the 4 most common parenting programs (Komet, COPE, Incredible Years, Connect) in Sweden in regular practice. ***Study design*** RCT, individual level ***Prevention level*** Indicated ***Setting*** Human services units (schools, social welfare agencies and child and adolescent psychiatry clinics), that had implemented at least two of the programs, located in the regions of Stockholm, Gothenburg, Örebro or Lund in Sweden. ***Population*** Parents of 3–12 years old children that had contacted a unit on their own or were recruited by regular advertisements about parenting programs in their community. For Incredible Years only 3–8 years old children were included. For Connect only 9–12 years old children were included. ***Exclusion criteria*** Autism spectrum disorder diagnosis ***Length of follow-up (months)***	***Intervention*** I1: Komet I2: COPE I3: Incredible Years I4: Connect ***Program deliverer*** Regular personnel used to run the programs. ***Program extent*** <u>I1</u> Nb sessions: 11 Time/session: 2.5 hours Duration: 11 weeks <u>I2+I4</u> Nb sessions: 10 Time/session: 1 hour Duration: 10 weeks <u>I3</u> Nb sessions: 12 Time/session: 2.5 hours Duration: 12 weeks ***Participants (nb randomized)*** <u>I1</u> n=207 (35.1% girls) Mean age: 7.3 years Ethnicity: 13.1% immigrants Monthly income (on 6 point scale, 1=0–10 000 SEK and 6=>50 000 SEK): 4.3 Educational level (on 4 point scale, 1=compulsory school, 4=university degree): 3.2 <u>I2</u> n=202 (38.9% girls) Mean age: 7.1 years Ethnicity: 14% immigrants Monthly income: 4.0 Educational level: 3.1	***Control condition*** C1: Waitlist (were offered program posttest) C2: Self-help book with instructions (results not reported) ***Participants*** <u>C1</u> n=159 (39.6% girls) Mean age: 6.7 years Ethnicity: 20.5% immigrants Monthly income: 4.1 Educational level: 3.2 ***Dropout rate at follow-up*** <u>C1</u> 6.9% at posttest	***Outcome*** Child behavior Parental practice ***Measures*** ECBI, SNAP-IV for ODD Angry Outbursts scale, Attempted understanding subscale, PPI subscales Harsh treatment and Rewarding the Child ***Results*** <u>Posttest</u> Significant change in ECBI intensity for Comet (d=0.63), Cope (d=0.44), Connect (d=0.31) and Incredible Years (d=0.42) compared to waitlist. Significant change in ODD symptoms for Comet (d=0.26), Cope (d=0.23) and Incredible Years (d=0.25), but not Connect, compared to waitlist. Significant change in negative parenting for Comet compared to waitlist (d=0.3–0.58) and the other programs. Significant change in positive parenting regarding rewards for Comet (d=0.3), Incredible Years (d=0.3) and Connect (d=0.28) compared to waitlist. <u>2 years FU</u>

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	Posttest and 2 years posttreatment	I3 n=122 (32.9% girls) Mean age: 6.9 years Ethnicity: 16% immigrants Monthly income: 3.8 Educational level: 2.8 I4 n=218 (33.7% girls) Mean age: 9.8 Ethnicity: 12.6% immigrants Monthly income: 4.0 Educational level: 3.1 ***Dropout rate at follow-up (based on randomized nb)*** I1 21.7% at posttest, 27% at 2 years FU I2 11.9% at posttest, 23% at 2 years FU I3 30.4% at posttest, 29% at 2 years FU I4 20.6% at posttest, 32% at 2 years FU		No difference between the programs in child behavior and parenting practice. ***Attendance rate*** 84.8% of participants randomized to a parenting program started the program Of those who started 6.5% attended <25%, 4.9% attended 2550%, 18.6% attended 50–75% and 70% attended >75% of all sessions. Attendance was significantly higher for Comet and Connect than for the other programs. ***Program integrity*** 3 randomly selected sessions of each parenting group were videotaped and rated on a 10-point scale for program integrity by specialist in the program. For Cope (9.0) and Comet (7.9) the rating was significantly higher than for Connect (7.5) and Incredible Years (6.9).

ECBI = Eyberg Child Behaviour Inventory; **SDQ** = Strengths and Difficulties Questionnaire

PMTO

Table PMTO.

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
Forgatch 1999 [36] Forgatch 2009 [37] Martinez 2001 [38] Patterson 2002 [39] De Garmo 2004 [40] De Garmo 2005 [41] USA	***Aim*** Effectiveness ***Study design*** Individual RCT ***Prevention level*** Selective ***Setting*** Clinical ***Population*** Recently separated single mothers and their sons in the US, recruited via advertisement. ***Inclusion and exclusion criteria*** Separation 3–24 months prior to the study and biological son in Grades 1–3 ***Length of follow-up*** Short term: 6 and 12 months Long term: 108 months	***Name of program*** PMTO ***Program deliverer*** Trained interventionists ***Program extent*** Nb sessions: 14 Time/session: NR Duration (weeks): 14 ***Participants*** n=153 (0% girls) Mean age: 7.65 years Ethnicity: 86% White (whole sample) ***Dropout rate at follow-up*** n=28 (18%) at 12 months n=31 (20%) at 108 months	***Control condition*** No intervention ***Deliverer*** ***Description*** ***Participants*** n=85 (0% girls) Mean age: 7.93 ***Dropout rate at follow-up*** n=15 (18%) at 12 months n=13 (15%) at 108 months	***Outcome*** Externalizing behavior Depression Anxiety Arrest records Parental practices ***Measures*** TRF -externalizing -adapting functioning CDI CBCL -Externalizing -Anxiety -Depressed mood Coercive discipline (observation) Positive parenting (observation) ***Results*** <u>At 6 months:</u> Both groups improved over time, no differences between groups <u>At 108 months:</u> PMTO intervention showed decreasing teacher-rated delinquency, police arrests, and delaying age at first arrest Difference between groups

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
				in coercive (d=0.54) and positive parenting (d=0.32) over time until 24 months. ***Attendance rate*** 29 (19%) attended 0 sessions. 20 (13%) attended 1–4 sessions. 104 (68%) attended >4 sessions ***Program integrity***
Parra-Cardona 2017 [42] USA	***Aim*** Effectiveness of two different cultural adaptation of PMTO ***Study design*** Individual RCT comparing the original version, adapted enhanced version or waiting list ***Prevention level*** Selective ***Setting*** Community participatory research ***Population*** First-generation, Spanish speaking Latina/o immigrants ***Inclusion and exclusion criteria*** Child attending kindergarten or	***Program deliverer*** Trained therapist **I1: CA, a culturally adapted PMTO intervention** ***Program extent*** 11sessions + a celebration dinner Time/session 2h Duration (12 weeks) ***Participants*** n=36 (39% girls) Mean age: 9.44 years, SD=3.35 ***Dropout rate at follow-up*** n=0 (0%) at 6 months **I2: CE, culturally adapted and enhanced intervention** ***Program extent***	***Control condition*** Waiting list ***Participants*** n=32(53% girls) Mean age: 9.16 years SD=3.18 ***Dropout rate at follow-up*** n=3 (9%) at 6 months	***Outcome*** Internalizing, externalizing, positive parenting ***Measures*** CBCL Adaptation of parenting scale for Latina population (Skills encouragement, discipline-limit setting, supervision, family problem solving, positive involvement) ***Results*** <u>CE vs WL:</u> Internalizing behaviors: significantly lower Externalizing behaviors: ns differences <u>CA vs WL:</u> No differences

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	elementary school Parents reported symptoms in the mild-to-moderate categories Parent 18 years or older, first generation Latina/o Low income No documentation of active sexual abuse ***Length of follow-up*** 6 months	Same as CA ***Participants*** n=35 (51% girls) Mean age: 8.88 years, SD=2.85 ***Dropout rate at follow-up*** n=1 (3%) at 6 months		CE and CA vs WL: Significant differences in positive parenting (d=0.51 to 1.12). ***Attendance rate*** 86% >6 sessions. 11% completed 1–3 sessions.
Scavenius 2020 [43] Denmark	***Aim*** Effectiveness of PMTO in Denmark ***Study design*** Individual RCT ***Prevention level*** Indicated ***Setting*** Clinical ***Population*** Child age:3 to 13 years Referred to municipal treatment because of child behavioral problems ***Inclusion and exclusion criteria*** ***Length of follow-up*** 18–20 months	***Name of program*** PMTO ***Program deliverer*** Therapists trained in the method ***Program extent*** Nb sessions 23 Time/session 1 hour Duration: 7 months ***Participants*** n=68 (31% girls) Mean age: 7.9 years *(SD=2.3)* <u>Other characteristics:</u> Main caregiver's education: Less than 10 years 28% 10–12 years 56% 13–17 years 16% ***Dropout rate at follow-up*** n=7 (10%) at 18 months	***Control condition*** A family-based SAU model routinely utilized in Denmark ***Deliverer*** Therapists with several years of independent clinical experience ***Description*** Informal, evidence-informed practices delivered in a flexible, unstructured format. ***Participants*** n=62 (27% girls) Mean age: 8.1 years (SD2.3) Other characteristics: Main caregiver's education: Less than 10 years 26% 10–12 years 29%' 13–17years 36% ***Dropout rate at follow-up*** n=10 (16%) at 18 months	***Outcome*** Anxiety, depression, internalizing, externalizing, conduct problems, ***Measures*** SDQ ***Results at follow up*** Child behavior problems significantly decreased in both groups, ns differences between groups ***Attendance rate*** NR ***Program integrity*** NR

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
Hagen 2011 [44] Norway	***Aim*** Effectiveness of PMTO ***Study design*** Individual RCT ***Prevention level*** Indicated ***Setting*** Child welfare or child mental health agencies ***Population*** Self-referral for child behavior problems Child age: 4 to 12 years Mean age: 8.44 years (SD=2.13 years) Low to middle income level. ***Inclusion and exclusion criteria*** Clinical judgments of the therapists (no screening or diagnostic procedure). Children with autism, severe mental retardation, documented sexual abuse, or custodial parents with severe mental retardation or psychopathology were not eligible for the study, but no child was excluded based on these criteria ***Length of follow-up***	***Program deliverer*** PMTO therapists ***Program extent*** According to the manual ***Participants*** n=59 (19% girls) ***Dropout rate at follow-up*** n=18 (30%) at 12 months	***Control condition*** SAU ***Deliverer*** Therapists ***Description*** Family therapy (10) Marte-Meo (6) BT (2) KBT (1) Existential therapy (1) Other (27) ***Participants*** n=53 (19% girls) ***Dropout rate at follow-up*** n=19 (36%) at 12 months	***Outcome*** Delinquency, aggression, internalizing parental practice ***Measures*** CBCL TRF Total Aversive Behavior (TAB) Observed parenting skills ***Results at follow up*** No differences between groups in externalizing or internalizing behavior in the ITT analysis. Difference in observed family behavior (TAB) in favor of PMTO. ***Attendance rate*** NR ***Program integrity*** NR

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	12 months			
Kjöbli 2013 [45] Norway	***Aim*** Effectiveness of PMTO in real world settings ***Study design*** Individual RCT ***Prevention level*** Indicated ***Setting*** 11 agencies situated in different municipalities in Norway ***Population*** Parents seeking help for emerging or developed conduct problems in their 3–12 years old children. n=137 (36.5% girls) Mean age: 8.56, SD=2.35 Ethnicity: 92% Norwegian background SES: Predominantly middle to upper middle class ***Inclusion and exclusion criteria*** Children with conduct problems Exclusion: autism, mentally retarded, sexual assaults, parents with serious mental health problems (no child was	***Name of program*** PMTO ***Program deliverer*** Therapist trained in PMTO ***Program extent*** Nb sessions 12 Time/session 2.5 hours Duration 12 weeks ***Participants*** n=72 ***Dropout rate at follow-up*** n=8 (11%) at 6 months	***Control condition*** Regular services Waiting list, offered PMTO after the follow- up ***Description*** 33 (51%) no intervention 12 (%) school-based counseling 5 (%) public health nurses 4 (%) social welfare or other professionals ***Participants*** n=65 ***Dropout rate at follow-up*** n=6 (9.2%) at 6 months	***Outcome*** Anxiety, depression, internalizing, externalizing, disruptive, conduct problems, parenting ***Measures*** Parents: ECBI CBCL HCSBS Teachers: SSBS TRF Parenting Practices Interview (PPI) ***Results*** Significant differences in favor of PMTO for externalizing problems: Parent ECBI IS d=0.42 (posttest); d=0.47 (6 months) ECBI PS d=0.34 (posttest); d=0.31 (6 months) Teachers SBSS externalizing d=0.15 (posttest); d=0.26 (6 months) Anxiety and depression Parents rated improvement,

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	excluded) ***Length of follow-up*** Short-term: 6 months			no difference between groups Teachers rated that anxiety/depression was sign. higher in PMTO at pre and post intervention. Difference in harsh discipline (d=0.77) and positive parenting (d=0.95) in favor of PMTO ***Attendance rate*** PMTO: Mean 25.65 hours SD=7.98 5 families received none, 8 received <50% Comparison 51% received none **Program integrity** High adherence
Bullard 2010 [46] De Garmo 2007 [47] USA	***Aim*** Efficacy of PMTO ***Study design*** Individual RCT ***Prevention level*** Selective ***Setting*** A metropolitan area in the Pacific Northwest, recruitment	***Program deliverer*** Trained PMTO therapist ***Program extent*** Nb sessions: 13 Time/session: NR Duration: 27 weeks ***Participants*** n=67 ***Dropout rate at follow-up***	***Control condition*** No intervention ***Participants*** n=43 ***Dropout rate at follow-up*** n=4 (9.3%) at 6 months n=3 (7.0%) at 12 months n=6 (14.0%) at 24 months	***Outcome*** Externalizing Depression Parenting practices ***Measures*** CBCL TRF CDI Coercive parenting, Positive parenting

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome measures
	via advertisement in media ***Population*** Married biological mothers and stepfathers where the focal child (5–10 years old) had five or more mother-reported conduct problems Mean age: 7.47 (SD=1.15) 30% girls ***Length of follow-up*** 6, 12 and 24 months	n=6 (8.9%) at 6 months n=7 (10.4%) at 12 months n=14 (20.1%) at 24 months		***Results*** No effect on mother-reported child behavior problems in either group. Significant decline in stepfathers' reports in PMTO but no change in control. No change in teachers-report of externalizing problems in the PMTO group but increase in control group. Significant difference between groups, Z=2.79. No effect on depression. Difference in coercive parenting (Z=2.32), but not in positive parenting. ***Attendance rate*** 11 of the 67 (16.4%) attended no sessions 22 attended 11–15 sessions, 17 attended >15sessions ***Program integrity*** High program integrity
Kjöbli 2013 [48] Norway	***Aim*** Effectiveness of brief parent training ***Study design*** Individual RCT	***Name of program*** Brief version of PMTO, BPT ***Program deliverer*** 75 interventionists from primary care settings after 9 days training	***Control condition*** SAU 68.5% received some interventions ***Deliverer*** NR	***Outcome*** Anxiety, depression, conduct problems, parenting practices ***Measures*** ECBI

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	Prevention level Indicated ***Setting*** Primary health care agencies in Norway ***Population*** Self-referral Child age: 3–12 years. SES: upper middle class ***Inclusion and exclusion criteria*** Children with conduct problems Exclusion: autism, mentally retarded, sexual assaults, parents with serious mental health problems ***Length of follow-up*** 6 months	***Program extent*** Nb sessions: 5 Time/session: 1 hour Duration: 5 weeks ***Participants*** n=108 (32.4% girls) Mean age: 7.36 (2.61) years Ethnicity: 93.5% had Ethnic Norwegian background ***Dropout rate at follow-up*** n=18 (16%) at 6 months	***Description*** NR ***Participants*** n=108 (31.5% girls) Mean age: 7.19 (2.61) years Ethnicity: 93.5% had ethnic Norwegian background ***Dropout rate at follow-up*** n=25 (23%) at 6 months	CBCL TRF SSBS HCSBS PPI ***Results at follow up*** Parents reported less externalizing problems in intervention group ECBI IS: d=0.33 ECBI PS: d=0.32 Teachers reported no difference between groups Difference in harsh discipline (d=0.34) and positive parenting (d=0.53) in favor of PMTO ***Program integrity*** Not reported but ensured by certification and supervision

CBCL = Child Behavior Check List; **ECBI** = Eyberg Child Behaviour Inventory; **SDQ** = Strengths and Difficulties Questionnaire; **SSBS** = School Social Behavior Scales; **TRF** = Teacher's Report Form

Incredible Years

Table Incredible Years.

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome and results**
Brotman 2008 [49] Report on effect on preschool children (från förra rapporten) Brotman 2005 [50] USA	***Aim*** Effectiveness of IY modified to address multiple risk factors ***Study design*** RCT individual level ***Prevention level*** Selective ***Setting*** Research Two boroughs in New York City ***Population*** Preschool age children with delinquent siblings <16 years, according to Family Court records. ***Inclusion and exclusion criteria*** Child age: 33–63 months Exclusion if parents had substance abuse or psychotic disorder, or if child had PDD. ***Length of follow-up*** Up to 24 months after baseline	***Program deliverer*** Group leaders ***Program extent*** Two new elements: guided parent-child interaction and home visits. Structured activities offered to older siblings. Nb sessions 22 each for parents and children 5 booster sessions Time/session 90 min followed by 30 min activities afterwards for practice of parenting strategies <u>Duration</u> 6–8 months plus 3 months of booster sessions 4–6 months later ***Participants*** n=47 (46.8% girls) Mean age: 3.9 years Ethnicity: 64% African American, 30% Latino, 1% Caucasian SES: Family poverty 59% ***Dropout rate at follow-up*** Reported for the whole sample 8 months follow-up 71 (77%);	***Control condition*** No intervention ***Participants*** n=45 (60% girls) Mean age: 3.9 years Ethnicity: 64% African American, 27% Latino, 1% Caucasian SES: Family poverty 60% ***Dropout rate at follow-up*** See intervention group	***Outcome*** Child physical aggression Parenting practices ***Measures*** Blinded observation and DPICS-R NYPRS-P ***Results at follow up*** Observed aggression: Significantly lower levels (I vs C). Persistence or new onset of aggression: 10% (I) vs 20% (C) Parent rated aggression: No effect (low at all time points). Observed parenting practices: Significant and sustained effects in Responsive Parenting and Harsh Parenting . ***Attendance rate*** 55% to 60% ***Program integrity***

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome and results**
		16 months follow-up 71 (77%)		Standardized manuals comprehensive, training, weekly monitoring and supervision of implementation.
Drugli 2010 [51] Drugli 2006 [52] Norway	***Aim*** Evaluate IY PT alone and PT + CT ***Study design*** RCT ***Prevention level*** Indicated ***Setting*** Two child psychiatric outpatient clinics in Trondheim and Tromsø, Norway ***Population*** Children, 4–8 years, referred for treatment of oppositional or conduct problems as experienced by parents. ***Inclusion and exclusion criteria*** ECBI>90th percentile Exclusion: children with gross physical impairment, sensory deprivation, intellectual deficit or autism. ***Length of follow-up*** 12 months for IY, posttest only	***Program deliverer*** Therapists with bachelor or master's degree in mental health and experienced clinicians ***Program extent*** I1: PT: 10–12 parents in groups with 2 therapists. Nb sessions: 12–14 Sessions/week: 1 Time/session: 2 h Duration 12–14 weeks CT: 6 children and 2 therapists per group Nb sessions: 18 Sessions/week: 1 Time/session: 2 hrs Duration 18 weeks. ***Participants*** PT, n=47 PT+CT, n=52 Characteristics for full sample: Gender: 20% girls Mean age: 6.6 years Ethnicity: 99% native Norwegians Parent education mainly high school	***Control condition*** Waiting-list (WL) ***Deliverer*** ***Description*** No intervention, no contact with the clinic during the study. Were offered IY post-test. ***Participants*** n=28 Mean age: 6.6 years ***Dropout rate at follow up*** n=0 (0%) at 6 months	***Outcome*** Child conduct problems ***Measures*** ECBI CBCL PBQ or TRF ***Results*** <u>Post-test:</u> PT+CT significantly reduced aggression levels in daycare/school as compared to PT and WL <u>12 months:</u> No difference between PT + CT and PT ***Attendance*** Not reported ***Program integrity*** Not reported but therapists were trained according to certification procedures and supervised

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome and results**
	for control group	***Dropout rate at follow up*** n=3 (2.4%) dropped out during treatment, and removed from analysis at 12 months		

Ford
2019
[53]
UK
	Aim
	Effectiveness of IY TCM- a Teacher Classroom Management program
	
	Study design
	Cluster RCT, school level
	
	Prevention level
	Universal
	
	Setting
	3 cohorts of schools in South West of England
	
	Population
	Children aged 4 to 9 years
	Allocation was balanced on urban v. rural/semi-rural area, and deprivation.
	
	Inclusion and exclusion criteria
	Single-year class with ≥15 children, a teacher with classroom responsibility ≥4 days/w.
	
	Exclusion: pupils with special educational needs, or lacked a substantive headteacher
		Program deliverer
		Facilitating group leaders and teachers
		
		Program extent
		TCM was delivered in groups of up to 12 teachers in 6 whole-day sessions
		Duration: 6 months
		
		Participants
		40 schools
		n=1037 (46.6% girls)
		Mean age: 6.2 years
		Ethnicity: 95.6 White
		SES: university degree 46.4%,
		No education: 3.8%
		
		Dropout rate at follow up
		At 9 months,
		n=78 (7.5%); drop in reports from Teacher 5%, Child 4%, Parent 41%.
		At 21 months,
		n=139 (13%); drop in reports from Teacher 17%, Child 17%, Parent 46%
		One school lost at follow-up.
			Control condition
			CAU
			
			Participants
			40 schools
			n=1038 (47.3% girls)
			Mean age: 6.4 years
			Ethnicity: 94.6 white
			SES: university degree 42.2%
			No education 6.3%
			
			Dropout rate at follow up
			At 18 months,
			n=79 (7.6%);
			drop in reports from Teacher 8%, Child 9%, Parent 41%.
			At 30 months,
			n=132 (13%);
			drop in reports from Teacher 13%, Child 14%, Parent 45%
			No loss of school
				Outcome
				Behavior
				
				Measures
				SDQ by teachers and parents
				PBQ by teachers
				
				Results
				A small significant effect in SDQ total (teachers) at post-test that was not maintained.
				PBQ showed reduced disruptive behavior across all 30 months FU.
				No other significant differences between groups
				
				Attendance rate
				97%
				
				Program integrity
				monthly supervision by the programme developer

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome and results**
	Length of follow-up 9- and 21-months post-test			
Gross 2003 [54] (gamla rapporten) USA	***Aim*** Efficacy of IY Basic for parents and teachers ***Study design*** Cluster RCT ***Prevention level*** Selective ***Setting*** 11 day-care centers in Chicago, serving low-income parents ***Population*** Parents of 2- and 3-year-old children Ethnicity: 97% minorities 90% of the participating parents were mothers ***Length of follow-up*** 12 months post-test	***Program deliverer*** Nurses, 64% with graduate degree ***Program extent*** Parent training (PT), Teachers training (TT) or combined (PT+TT) Parents met weekly in groups of 8–12 parents for twelve 2-hr sessions in the evenings. Teachers met in weekly groups of 4–12 teachers for twelve 2-hr sessions. Duration 12 weeks ***Participants*** PT: 4 centers; n=75 parents TT: 4 centers; n=52 parents PT + TT: 4 centers; n=78 parents ***Dropout rate at follow up*** 21.2% (n=56) of parents and 31.2% (n=35) of teachers dropped out.	***Control condition*** Waiting list ***Deliverer*** NA ***Description*** Received no intervention for at least 1 year ***Participants*** K=3 day-care centres Eligible children, n=59 (22%) ***Dropout rate at follow up*** 9%	***Outcome*** Parenting Child behavior problems ***Measures*** PQ ECBI Kohn's Problem Checklist (teacher) Observations with DPICS-R ***Results at follow up*** ECBI: no difference between groups. DPICS-R (blinded observer, free play situation): no significant effects on negative child behavior. Coercive discipline: reductions in PT and PT+ TT-groups post-test that were not maintained at follow up. Positive parent behavior: significant improvement in PT and PT + TT posttest that were maintained at follow up. ***Attendance rate*** 80%

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome and results**
				Program integrity Group leaders received ongoing supervision and feedback.
Gross 2009 [55] USA	***Aim*** Efficacy of the Chicago Parent Program (CPP), developed in collaboration with African American and Latino parents ***Study design*** Cluster RCT at day care level ***Prevention level*** Selective ***Setting*** Seven day-care centers in Chicago with >60 children >90% of families eligible for childcare subsidies ***Population*** 34% of eligible parents accepted to participate. ***Inclusion and exclusion criteria*** Child age: 2–4 year English speaking, One child per parent ***Length of follow-up*** 12 months post-intervention	***Program deliverer*** 10 group leaders with graduate degree and of various ethnicities, trained and supervised by the developer ***Program extent*** Goup size: 8–12 Nb sessions: 11 weekly Time/sessions: 2-hr Duration 5 months 1 booster session 2 months later ***Participants*** n=156 (51.1% girls) Ethnicity: Latino 37% African American 52% SES: Grade 3.7%, Some High School: 14.1%, High School: 28.1% ***Dropout rate at follow up*** n=21 (13%)	***Control condition*** Waiting list (WL) ***Deliverer*** NA ***Participants*** n=136 (36.4% girls) Ethnicity: Latino 28%, African American 67% SES: Grade 5.1%, Some high school: 11.9% High School: 24.6% ***Dropout rate at follow up*** n=18 (13%)	***Outcome*** Parent strategies Child behavior ***Measures*** Observation with DPICS-R (child and parent) ECBI, IS and PS ***Results at 1 year FU*** <u>Parents</u> Negative strategies: Significant improvement for CPP with small effect sizes Positive strategies: Significant improvement for WL during play; no differences during clean-up <u>Children</u> Significantly fewer aversive behaviors in the CPP group with medium effect size. Parents reported no differences between groups A dose-effect response was seen for ECBI I, use of

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome and results**
				corporal punishment and aversive behaviors. Effects were significant if parents attended > 5 sessions. ***Attendance rate*** Low, average 4.3 of 11 CPP sessions ***Program integrity*** Weekly protocol check lists and random observations of parent groups by the investigators.
Perrin 2014 [56] USA	***Aim*** Feasibility and effectiveness of IY ***Study design*** RCT ***Prevention level*** Indicated ***Setting*** Seven private practice-groups and 4 federally qualified health centers in Eastern Massachusetts. ***Population*** Parents with children 22 to 42 months. ***Inclusion and exclusion criteria***	***Program deliverer*** A research clinician and a pediatric staff member ***Program extent*** A short IY parent-training group program, each group with 6–12 parents Nb sessions: 10 Time/session: 2h Duration: 10 weeks ***Participants*** n=89 (37% girls) Mean age: 2.7 years Ethnicity: 91% white SES: Other characteristics: ***Dropout rate at follow up*** n=9 (10%) at 12 months	***Control condition*** Waiting-list group ***Deliverer*** ***Description*** No intervention ***Participants*** n=61 (38% girls) Mean age: 2.8 years ethnicity: 93% White SES: Other characteristics: ***Dropout rate at follow up*** n=11 (18%) at 12 months	***Outcome*** Parenting negative practices Child disruptive behaviors ***Measures*** PS ECBI Structured observations DPICS–R and CII) ***Results at 12 months follow up*** <u>Parent report</u> IY>WL, ECBI IS SMD= –0.43 and ECBI PS SMD= –0.59) and negative parenting (SMD= –0.51). <u>Observation</u> IY > WL at post-test. on

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome and results**
	Child scored ≥ the 80th percentile on the ITSEAS at screening. English or Spanish speaking Children with a diagnosis of pervasive developmental disorder or global developmental delay were excluded ***Length of follow-up (months)*** 6 and 12 months after intervention			all CII components and at 12-mo follow-up on negative parent-child interaction d= –0.38 ***Attendance rate*** 71 completed at least 3 sessions (80%), 65 completed at least 7 sessions (73%) ***Program integrity*** High program integrity to the IY protocol maintained throughout the study
Reedtz 2011 [57] Reedtz 2016 [58] Norway	***Aim*** Effectiveness in a non-clinical sample ***Study design*** RCT ***Prevention level*** Universal ***Setting*** Research conducted in the city of Tromsø ***Population*** Volunteers from the community Children aged 2 to 8 years 59% boys Mean ECBI IS >Norwegian mean scores 78% of parents had a bachelor's	***Program deliverer*** Experienced group leaders ***Program extent*** Groups of 6–8 parents met once weekly Nb sessions: 6 Time/session: 2h Duration: 6–8 weeks ***Participants*** n=89 Mean age: ~4 years ***Dropout rate at follow up*** n=23 (25%) at posttest n=23 (25%) at 12 months n=27 (29%) at 4 years	***Control condition*** No intervention ***Participants*** n=97 Mean age: ~4 years ***Dropout rate at follow up*** n=45 (46%) at post-test n=51 (53%) at 1 year n=48 (49%) at 4 years	***Outcome*** Parenting practices Behavior problems ***Measures*** ECBI PPI ***Results*** <u>Children</u> Small effect from pre to post but no effect at 1- and 4-years follow up <u>Parenting</u> Difference in positive parenting and harsh discipline were seen at 1 years FU (η^2=0.12 and η^2=0.05) and maintained at 4 years (g=0.63 and g=0.37).

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome and results
	degree or higher ***Inclusion and exclusion criteria*** Exclusion: ECBI Intensity scores above the 90th percentile ***Length of follow-up*** 12 months 4 years			***Attendance rate*** Not reported ***Program integrity*** Not reported but therapists completed check-lists and parent meetings were videotaped for evaluation weekly
Rimestad 2017 [59] Denmark	***Aim*** Evaluate effects of adding teacher training to IY PT in a community sample of children with early ADHD problems. ***Study design*** RCT ***Prevention level*** Indicated ***Setting*** Centre for ADHD, a non-profit private clinic, in Aarhus, Denmark ***Population*** Parents of children self-referred to the Centre for ADHD. 41% had an ADHD diagnosis prior to the study 21% received medical treatment ***Inclusion and exclusion criteria*** Child between 3 and 8 years	***Program deliverer*** Clinical psychologists accredited or under education in IY. TT was delivered by the program developers ***Program extent*** PT + TT condition <u>PT, Parent training:</u> See control group <u>TT, Teacher training:</u> Developed at the Centre for ADHD, based on IY Basic 4×3-h group sessions and a 2-h individual supervision ***Participants*** n=34 (35.3% girls) Mean age: 75.5 months Ethnicity: not reported ***Dropout rate at follow up*** n=7 (21%) at 12 months for parents' reports; n=9 (27%) for	***Control condition*** PT (Parent training) only ***Deliverer*** See Intervention group ***Description*** 12 sessions Incredible Years Basic, 3 sessions ADVANCE Program (Webster-Stratton 2011), three additional sessions. Parents of 6–7 children + 2 group leaders/group ***Participants*** n=30 (10% girls) Mean age: 72.5 months Ethnicity: not reported ***Dropout rate at follow up*** n=3 (10%) at 12 months for parents' report; n=14 (53%) for teachers' report	***Outcome*** Child behavior problems ***Measures*** ECBI IS SESBI-R (teachers) SDQ ***Results*** Improvements in both groups over time but no significant differences between groups. ***Attendance rate*** NR ***Program integrity*** Treatment program integrity checklist filled in after every session and checked by certified Peer Coaches.

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome and results**
	with ADHD symptoms ***Length of follow-up*** 6 months after end of the program	teachers' report Four of the teachers discontinued the TT program; three gave as reason a too busy schedule, and one illness.		
Scott 2010 [60] UK	***Aim*** Effectiveness and costs of IY and a literacy program, for children with elevated risk of antisocial behavior ***Study design*** RCT-individual level ***Prevention level*** Indicated ***Setting*** Eight schools in London among the 5% most deprived English boroughs ***Population*** Screening of all children 5–6 years for conduct symptoms, n=936 ***Inclusion and exclusion criteria*** SDQ conduct scale ≥5 or DSM ODD items ≥10 Child free of clinically apparent developmental delay. ***Length of follow-up*** 9 months	***Program deliverer*** For IY: mainly psychology degree plus IY certification ***Program extent*** Group size: 4–8 parents for 2½ hr/week. IY: 12 sessions SPOKES literacy program: 10 sessions Revision: 6 sessions ***Participants*** n=61 (32% girls) Mean age: 5.18 years Ethnicity: not reported ***Dropout rate at follow up*** n=3 (5%)	***Control condition*** Telephone helpline if needed ***Deliverer*** Same staff as for interventions ***Description*** Advising on how best to access regular services ***Participants*** n=51 (27% girls) Mean age: 5.24 years Ethnicity: not reported ***Dropout rate at follow up*** n=0 (0%)	***Outcome*** Child antisocial behavior Parenting ***Measures*** PACS interview ECBI Observation (parenting) PP Semi-structured interview (parenting) ***Results at follow up*** Parenting Significant improvement in positive and negative strategies with d between 0.31 and 0.59 (interview) and positive strategies (observation). No significant differences in questionnaires. Child behavior Significant improvement in ASB (parent interview) and problems (ECBI) No difference (teachers) ***Attendance rate*** 41/61 attended ≥5 sessions

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome and results**
				Program integrity Training, self-completed treatment adherence schedules, responding to weekly written feedback from participants and weekly supervision
Scott 2010 [61] UK	***Aim*** Investigate generalizability of SPOKES, IY and a literacy program. ***Study design*** RCT ***Prevention level*** Selective ***Setting*** Four primary schools in Southwark, an inner-city London borough, a high-risk, ethnically diverse and deprived area, ranking in the highest 2% of deprivation of levels in England. ***Population*** All children in reception and year one, n=672. Children were screened (SDQ CD ≥5 or DSM ODD ≥10). High-risk children were randomized in a ratio of 2:1 och low risk in a ratio of 1:2 to be approached for the study.	***Program deliverer*** IY: 2 leaders per group, one with psychology degree ***Program extent*** IY Basic: 12 weekly sessions SPOKES: shortened to 6 weekly sessions Time/session: 2h ***Participants*** n=88 (51% girls) Mean age: 66.4 months Ethnicity: minorities 76% ***Dropout rate at follow up*** n=14 (16%)	***Control condition*** CAU ***Deliverer*** NA ***Description*** Access to a general practitioner, school-based drop-in service, and specialist mental health service ***Participants*** n=86 (46% girls) Mean age: 65.7 months Ethnicity: minorities 76% ***Dropout rate at follow up*** n=8 (9%)	***Outcome*** Parenting Child behavior ***Measures*** Observation of parent-child interaction at home Semi-structured interview (parenting) PACS Interview SDQ CD (teacher, mother) ***Results*** <u>Parenting</u> Observation: Significant improvement on child-centered parenting (ES 0.42) and global negative affect (ES 0.33). Otherwise, ns effects Interview: significant increase in use of calm discipline (ES 0.38) only. <u>Child behavior</u> No significant differences ***Attendance rate*** Mean attendance: 4/12

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome and results**
	Inclusion and exclusion criteria Child free of clinically apparent global developmental delay. ***Length of follow-up*** 9 months			sessions; 1/3 of parents did not attend at all ***Program integrity*** As for [99]
Stewart Brown 2004 [62] UK	***Aim*** Effectiveness of IY "Parents and Children" in a non-clinical population ***Study design*** RCT- after matching on ECBI ***Prevention level*** Indicated ***Setting*** Three general practices in a socio-demographically mixed area of Oxford ***Population*** Respondents in a postal survey (response rate 70%) Child age: 2–8 years, mean: 4.6 ***Inclusion and exclusion criteria*** ECBI score >100 Excluded: Children already receiving treatment for behavior problems and children with learning difficulties ***Length of follow-up*** 6 and 12 months	***Program deliverer*** Health visitor ***Program extent*** Nb sessions: 10 Time/session: 2.5 hours Duration (weeks): 10 ***Participants*** n=60 ***Dropout rate at follow up*** n=12 (20%) at 6 months n=16 (28%) at 12 months	***Control condition*** No intervention ***Deliverer*** NA ***Description*** NA ***Participants*** n=56 ***Dropout rate at follow up*** n=10 (18%) at 6 months n=13 (23%) at 12 months	***Outcome*** Child behavior problems ***Measures*** ECBI SDQ ***Results*** Significant improvement on ECBI IS and SDQ CD at 6months, but not at 12 months No significant difference between groups at 12 months on any other SDQ or ECBI score Both groups improved significantly. ***Attendance rate*** 34 of 60 attended at least 50% of meetings ***Program integrity*** Weekly supervision meetings

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome and results**
Webster Stratton 1998 [63] (gamla rapporten) USA	***Aim*** Effectiveness of PARTNERS, IY for parents and teacher training ***Study design*** RCT-cluster at center level ***Prevention level*** Selective ***Setting*** Nine Head Start centers chosen for their similarities with 64 schools, within one large urban area in Northwest region of US. ***Population*** English-speaking families enrolled in Head Start. 85% indicated interest Families socially disadvantaged (>80% on social Welfare) ***Inclusion and exclusion criteria*** Child age: 3 to 7 years ***Length of follow-up*** 12–18 months	***Intervention*** PARTNERS in addition to Head Start ***Program deliverer*** Family service workers (FSW) with MSc or BSc degree, trained for 3 days ***Program extent*** Parents: 8–16 Nb sessions: 8–9 once weekly Time/session: 2h Duration: 8–9 weeks Teachers: 2 days workshop ***Participants*** n=345 Mean age: 56.4 months Ethnicity: 36% children from minorities ***Dropout rate at follow up*** n=155 (45%)	***Control condition*** WL with Head Start as usual. ***Deliverer*** ***Description*** Head Start curriculum included parent education on topics as stress management, nutrition, self-care, and dental care. ***Participants*** n=167 Mean age: 56.8 months Ethnicity: 51% children from minorities ***Dropout rate at follow up*** n=60 (36%)	***Outcome*** Child conduct problems Parenting ***Measures*** Self-report, parenting competencies CBCL externalizing/TRF ECBI Structured observation, DPICS-R and CII ***Results at follow-up*** Significant improvements in parenting style (self-report and observation) Child behavior: ns according to mothers Significant improvement according to observers ***Attendance rate*** Average 5.9 sessions (mothers) ***Program integrity*** High, monitored by random videotapes of group sessions
Webster Stratton 2001 [64] USA	***Aim*** Effectiveness of two years IY Basic PT and TT as an early prevention program in Head Start classrooms	***Program deliverer*** FSW with a MSc or BSc degree, trained for 3 days ***Program extent PT*** <u>Year 1:</u>	***Control condition*** Regular Head Start curriculum as usual ***Participants*** 13 classrooms from 5 centers.	***Outcome*** Parenting Child behavior ***Measures*** PPI

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome and results**
	Study design Cluster-RCT randomly assigned via lottery 2:1 ***Prevention level*** Offered universally to a selected group ***Setting*** Two large urban Head Start districts in Seattle, US. Five school districts, 14 Head Start centers and 36 classes in Seattle area, US . ***Population*** 540 families, 60% consented ***Inclusion and exclusion criteria*** Child age: 3–7 years Speaking English, Vietnamese or Spanish ***Length of follow-up*** 12 months	Group size: 6–10 Nb sessions: 12, once weekly Time/session: 2½ hours <u>Year 2:</u> Group size: 6–8 Nb sessions: 4 boosters, once a week Time/session: 2 hours ***Program extent TT*** Nb sessions: 6, once monthly Time/session: 6 hours ***Participants PT*** 23 classrooms from 9 centers n=225 children (50% girls) Ethnicity: 69% minorities Financial aid: 86% ***Dropout rate at follow up*** n=50 (25%)	n=103 children (36% girls) Ethnicity: 49% minorities Financial aid: 80% ***Dropout rate at follow up*** n=59 (43%)	Observation with CII and DPICS-R Construct based on CBCL and ECBI ***Results at follow-up*** Trend for improvement of positive parenting and child conduct problem but no effect for negative parenting. 80% of children in the IY-group were below the at-risk cut-off vs 48% of the C children ($p<0.008$) ***Attendance rate*** Mothers: mean 5.73 sessions in year 1 37% attended no sessions ***Program integrity*** One session for each group leader was monitored by project leader
Weeland 2017 [65] Van Aar 2019 [66] Overbeek 2021	***Aim*** Effectiveness of IY ***Study design*** RCT ***Prevention level*** Indicated ***Setting***	***Program deliverer*** Group leaders with a background in clinical child psychology, certified by IY. ***Program extent*** Group size: 8–15 Nb sessions: 14, once weekly + 1 booster four weeks later Time/session: 2 hours	***Control condition*** No intervention ***Participants*** n=190 (47% girls) Mean age: 6.30 years Ethnicity: 87% Dutch ***Dropout rate at follow up*** n=44 (23%)	***Outcome*** Child behavior Parenting practices ***Measures*** PPI ECBI Observation and DPICS-R ***Results***

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome and results**
[67] The Netherlands	Two Dutch regional health care organizations in two large and two small municipalities ***Population*** Screening of all families with children 4–8 years (n=20 048) ***Inclusion and exclusion criteria*** ECBI IS ≥75th percentile ***Length of follow-up*** Up to 2½ years	***Participants*** n=197 allocated (42% girls) Mean age: 6.3 years Ethnicity: 85% Dutch ***Dropout rate at follow up*** n=16 (8%) at post-test n=17 (9%) 4 months FU n=48 (24%)		<u>Post-test, 4 months FU</u> ECBI: d=0.35 Observation: ns differences Parenting: significantly better reported parent practices and observed positive practices. Ns negative practices <u>At 2.5 years follow-up</u> ECBI: d=0.33; Teacher and self-report: ns differences ***Attendance rate*** Not reported as ITT 11/15 sessions for active participants ***Program integrity*** Following IY standard procedures, 70% of the standards were executed by trainers
Stattin 2015 [7] Högström 2017 [8] Sweden See table for KOMET				

CBCL = Child Behavior Check List; **ECBI** = Eyberg Child Behaviour Inventory; **SDQ** = Strengths and Difficulties Questionnaire; **TRF** = Teacher Report Form

New Beginnings

Table New Beginnings.

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
Sandler 2020 [68] Sandler 2018 [69] USA	***Aim*** Effectiveness and generalizability of New Beginning Program (NBG) ***Study design*** RCT ***Prevention level*** Selective ***Setting*** Four family courts in two urban and two small-town, rural counties in Arizona. ***Population*** Divorcing or separating families Ethnicity: 40% minorities Mother 57.1%, or father 42.9%, Girls 47%. Education: 30% BSc or higher Parents ages: 18 to 63 years Mean age: 37.46 years Children mean age: 8.43 years ***Inclusion and exclusion criteria*** Families with children ages 3–18. ***Length of follow-up*** Short-term: 10 months	***Program deliverer*** Providers in community agencies by a single leader ***Program extent*** Group size: 4–15, average 9 Nb sessions: 10 group sessions and two individual phone sessions, once weekly. Parents who did not attend a session were offered a 20-min self-administered make-up DVD with skill taught in the missed session ***Participants*** n=45 parents ***Dropout rate at follow-up*** n=141 (32%)	***Control condition*** Active 2-session ***Deliverer*** Trained group-leader ***Description*** In two-group session parents learned about the same parenting skills but did not complete home practice of these skills. The program was delivered to 22 mother groups and 22 father groups (average group size = 9.30, range = 4–14). ***Participants*** n=385 parents ***Dropout rate at follow-up*** n=86 (22%)	***Outcome*** Parenting skills and child behavior problem ***Measures*** Child Report of Parental Behavior Inventory Child Monitoring Scale CBCL (parents) Brief Problem Monitor (child, teacher) ***Results*** <u>At 10-month FU:</u> Ns differences between groups in child mental health reported by child, parent or teacher. No main effects on child report of parenting skills Father report of monitoring significantly different between groups. ***Attendance rate*** 24.0% never attended; 12.1% all 10 sessions. Mean nb 5.59 sessions. ***Program integrity*** Assessed by objective rater coding of leader behavior per session. A high level of

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
				program integrity to the manual was reported
Wolchik 2013 [70] Wolchik 2000 [71] Wolchik 2002 [72] (båda från förra rapporten) USA	***Aim*** Efficacy ***Study design*** RCT ***Prevention level*** Selective ***Setting*** Maricopa County, Phoenix metropolitan area, Arizona ***Population*** Divorced mothers with a 9- to 12-year-old child. Mean age of interviewed children: 10.4 years Mean maternal age: 37.3 49% females. Custody: 63% sole maternal Ethnicity: 12% minorities Median yearly income: $20,001–$25,000 ***Inclusion and exclusion criteria*** Mother divorced within the previous 2 years, primary parent, at least one child 9 to 12 years living most time with mother, neither the mother nor child in treatment for psychological problems, no boyfriend or plan to remarry during trial. Stable	***Program deliverer*** Two group leaders - clinicians with master's degree in clinical psychology, social work, or another mental health-related field ***Program extent*** Nb sessions: 11 group sessions (mothers and children), and +2 (only mothers) Time/session: 1.75 hours Duration: 11 weeks ***Participants*** n=164 n=81 mother intervention n=83 mother and child intervention. ***Dropout rate at follow up*** n=6 (2%) at 6 months n=30 (18%) at 15 years	***Control condition*** Literature control group ***Deliverer*** Mailed to families at one-month intervals ***Description*** Self-study program, mothers and children each received three books, along with syllabi to guide their reading ***Participants*** n=76 ***Dropout rate at follow up*** n=2 (3%) at 6 months n=16 (21%) at 15 years	***Outcome*** Mother-child relationship quality Child behavior Mental health ***Measures*** CRPBI CBCL and ABCL DIS YSR aggression and delinquency, Adult Self Report CDI, RCMAS, ***Results*** <u>At 6-month follow-up</u> Significant difference vs control for mother and child reported externalizing problems. No difference for internalizing problems. <u>At 6 years</u> Sustained effects on externalizing problems. <u>At 15 years follow-up</u> Significantly fewer with an internalizing disorder OR=0.34, or either an internalizing or an externalizing disorder. OR=0.50

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome measures
	custody. ***Length of follow-up*** 6 months, and 15 years			***Attendance*** Mothers attended in average 10 of 13 sessions and children 8.55 of 11 group sessions. ***Program integrity*** High level of program integrity was secured

CBCL = Child Behavior Check List; **RCMAS** = Revised Children's Manifest Anxiety Scale

Parent – Child Interaction Therapy, PCIT

Table Parent – Child Interaction Therapy, PCIT.

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome measures
Berkovits 2010 [73] USA	***Aim*** Compare two abbreviated versions of PCIT ***Study design*** RCT, blocked by clinic ***Prevention level*** Indicated ***Setting*** 3 pediatric primary care clinics in Florida ***Population*** Maternal caregivers of 3-to 6-year children	***Program*** PCIT in group format (PC-PCIT) ***Facilitator*** Two graduate students in clinical psychology per group. They were supervised in groups once a week by two licensed psychologists, familiar with PCIT. ***Program extent*** Intensity: once a week Time/session: 1.5 hours Duration: 4 weeks Group size: 2–4 mother-child dyads Homework assignments	***Program*** Self-guided PCIT (PCIT-AG) ***Description*** Educational handouts, same written material as for PC-PCIT ***Participants*** n=13 dyads (31% of children were girls) Mean age: 55.23 years (15.91) Ethnicity: 62% Caucasian Annual income: 31% below $30K ***Dropout rate at follow up*** 8% at 6 months follow up	***Outcome*** Externalizing symptoms ***Measures*** ECBI IS ***Results*** Both groups improved significantly from pre- to post treatment, no significant change between posttreatment and follow up. No significant difference between groups, either at posttreatment or follow up

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	Inclusion and exclusion criteria ECBI IS score between 68 and 132 (subclinical problems) ***Follow-up time*** 6 months	***Participants*** n=17 dyads (29% of children were girls) Mean age of child: 48 months (9.77) Ethnicity: 65% Caucasian Annual income: 50% below $30K ***Dropout rate at follow up*** 41% at 6 months follow up		***Program integrity*** All sessions were audiotaped. 50% of them were randomly selected for coding. Mean integrity 98% ***Attendance rate*** 5/7 dropouts from PC-PCIT never came to a session, 2 discontinued
Björseth 2016 [74] Norway	***Aim*** Longterm effectiveness of PCIT ***Study design*** RCT ***Prevention level*** Indicated ***Setting*** Two outpatient child and adolescent mental health clinics in Norway ***Population*** Consecutively referred children with behavior problems, n=137 ***Inclusion and exclusion criteria*** Score at least 120 on ECBI (90th percentile in Norway) 2–7 years old Children with ASD or mental	***Facilitator*** Clinical practitioners, who had used PCIT as part of their routine service. Experienced licensed child therapists. They were trained in group format for 40 hours and had monthly supervision. ***Program extent*** Until parents had reached mastery ***Participants*** n=40 (49% girls) Mean age: 5.7 years Ethnicity: mostly Norwegian 50% had skilled worker as parent ***Dropout rate at follow up*** 6/40 at 6 months 6/40 at 18 months	***Control condition*** TAU except Incredible Years or PMTO. Individual therapy for the child and parent counselling most common. ***Facilitator*** Clinical practitioners who had not used PCIT. Experienced licensed psychologists or social workers ***Description*** ***Participants*** n=41 (51% girls) Mean age: 5.9 years Ethnicity: mostly Norwegian 69% had skilled worker as parent ***Dropout rate at follow up*** 17/41 at 6 months 10/41 at 18 months	***Outcome*** Externalizing symptoms ***Measures*** ECBI CBCL DPICS ***Results*** At 6 months: ECBI IS for the father improved significantly vs TAU (d=0.56) At 18 months: ECBI and CBCL externalizing rated by mothers improved significantly vs TAU (d=0.64 and 0.61). Positive parenting (d=2.58) and Negative parenting (d=1.46) improved significantly vs

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	retardation were excluded			TAU. ***Program Integrity*** A co-therapist monitored the procedural program integrity in 45% of the PCIT sessions and provided feedback. ***Attendance rate*** PCIT: 21 sessions TAU: 18.9 sessions
Comer 2017 [75] USA	***Aim*** To evaluate PCIT in video conference format (I-PCIT) ***Study design*** RCT, individual level ***Prevention level*** Indicated/early treatment ***Setting*** Two university-affiliated clinics, one in Florida and one in Boston ***Population*** Families seeking treatment for child-behavior problems ***Inclusion criteria*** Child age: 3–5 years DSM-IV ODD, CD and/or DBD-NOS according to DSM-IV ECBI >132	***Program*** I-PCIT ***Facilitator*** Clinical psychologist trainees who completed yearly intensive didactic training with a PCIT master ***Program extent*** As standard PCIT but with a webcam. Mean number sessions to achieve PCIT mastery: 21.7 (7.4) (both groups) ***Participants*** n=20 (20% girls) Mean age: 3.8 years (0.8) Ethnic/racial minority: 43.8% Annual household income <$50 000: 22% >$150 000: 27.7%	***Program*** PCIT ***Facilitator*** The same facilitators as I I-PCIT ***Program extent*** Standard PCIT ***Participants*** n=20 (15% girls) Mean age: 4.1 years (0.9) Ethnic/racial minority: 41.2% Annual household income <$50 000: 26.7% >$150 000: 26.7% ***Dropout rate at follow up*** 40% at 6 months	***Outcome*** Disruptive behavior symptoms, diagnoses ***Measures*** Parents: ECBI, CBCL, Masked evaluators: K-DBDS (conducted at the clinic for both conditions) ***Results*** Large to very large effect sizes within subjects Non-significant and relatively negligible differences between groups ***Program integrity*** Self-reported session-integrity checklists. 5% of the sessions were checked by the lead

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	Exclusion criteria More impairing problems than DSM-IV DBD Child on medication or psychotherapy to manage the problems Caregiver or child history of severe physical or mental impairments	***Dropout rate at follow up*** 25% at 6 months		supervisor, integrity was 88% ***Attendance rate*** 70% completed the program in both groups
McCabe 2012 [76] McCabe 2009 [77] USA	***Aim*** Evaluate two versions of PCIT in a Mexican American sample vs TAU ***Study design*** RCT, individual level ***Prevention level*** Indicated/early treatment ***Setting*** One community mental health clinic in San Diego ***Population*** n=103 families were screened by telephone; n=58 families were eligible and consented ***Inclusion and exclusion criteria*** Age: 3–7 years EBCI IS score > clinical cutpoint	***Programs*** GANA (PCIT culturally adapted) Standard PCIT ***Facilitator*** Bilingual practicum students from psychology doctoral program. They had 40 hours training by the principal investigator, who was also responsible for supervision, 1 hour weekly. ***Program extent*** According to the standard version of PCIT ***Participants GANA*** n=21 (23.8% girls) Mean age: 54.3 months 1st generation American: 71,4% Annual income: $ 26 000 ***Participants PCIT*** n=19 (26.3% girls) Mean age: 48.9 months 1st generation American: 78.9%	***Control condition*** TAU, according to the choice of the therapist ***Facilitator*** Therapists without training in PCIT at the same clinic. Supervision by the principal investigator 1 hour weekly. ***Description*** Unlimited number of therapies and sessions. ***Participants*** n=18 (39% girls) Mean age: 55.1 months 1st generation American: 77.8% Annual income: $20 300 ***Dropout rate at follow up*** 5/18 at average 15.90 (4.25) months post treatment (range 6.58 to 24.47 months)	***Outcome*** Disruptive behavior ***Measures*** ECBI, DPICS, CBCL ***Results*** All groups improved but problems were still significant at follow up. GANA: significantly better than TAU for ECBI IS (d=0.81), CBCL int (d=0.56) and ext, (d=0.65) CBCL TP (d=0.63) No difference for ECBI P. Significantly better than PCIT on CBCL int PCIT: no significant differences vs TAU. ***Program integrity*** Coded from session videotapes. 82% of items

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
		Annual income: $ 22 700 ***Dropout rate at follow up*** GANA: 1/21 at average 15.9 months post treatment PCIT: 4/19		were present. ***Attendance rate*** GANA: mean 13.9 sessions PCIT: mean 13.4 sessions TAU: 10.94 sessions
Graziano 2020 [78] USA	***Aim*** Efficacy of an intensive version of PCIT (PCIT-I) compared with a time limited PCIT (PCIT-T) ***Study design*** RCT, individual level ***Prevention level*** Indicated/selective ***Setting*** One outpatient clinic in a large urban southeastern city in the US, with a large Latino population ***Population*** n=142 families were screened. 60 families were eligible and consented to participate ***Inclusion criteria*** Child age: 2–7 years ECBI score above clinical cutoff (T score ≥60) ***Exclusion criteria*** Intellectual disability, full scale	***Program*** PCIT-I ***Facilitator*** Clinical psychology or mental health counseling graduate students. At least 40 hours training and weekly supervision by a licensed clinical psychologist, certified in PCIT ***Program extent*** 5 days/week for 2 weeks, 60–90 min each No requirements of mastery to progress ***Participants*** n=30 (30% girls) Mean age: 4.40 years (1.47) Proportion Hispanics: 93% Annual household income <$35 000: 18% ***Dropout rate at follow up*** 10% at 6–9 months posttest	***Program*** PCIT-T ***Facilitator*** Clinical psychology or mental health counseling graduate students. At least 40 hours training and weekly supervision by a licensed clinical psychologist, certified in PCIT ***Program extent*** Once weekly for 10 weeks, 60–90 min each No requirement of mastery to progress ***Participants*** n=30 (40% girls) Mean age: 4.25 years (1.10) Proportion Hispanics: 77% Annual household income <$35 000: 24% ***Dropout rate at follow up*** 7/30 at 6–9 months posttest	***Outcome*** External behavior problems, parenting skills and child compliance ***Measures*** ECBI, DPICS-IV ***Results*** PCIT-I not inferior to PCIT-T in parenting and child behavior outcomes at posttest and follow up Both groups made comparable improvements in 6 out of 7 outcomes, ECBI-P, favored PCIT-T ***Program integrity*** Not systematically measured ***Attendance rate*** PCIT-I: more likely to drop out before beginning the treatment PCIT-T: more likely to drop out from treatment.

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome measures
	IQ <70 ASD			

CBCL = Child Behavior Check List; **DBD** = Disruptive Behavior Disorders Rating Scale; **ECBI** = Eyberg Child Behaviour Inventory

Triple P and Stepping Stones Triple P

Table Triple P and Stepping Stones Triple P.

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome measures
Baker 2017 [79] Australia	***Aim*** Efficacy of Triple P Online Brief ***Study design*** RCT, individual level ***Prevention level*** Indicated ***Setting*** Research ***Population*** Self-referral from schools and childcare centers in South East Queensland, Australia ***Inclusion and exclusion criteria*** Inclusion: Child age: 2–9 years SDQ score ≥15 Parents identified at least one of four topics covered in the	***Name of program*** Triple P Level 3 ***Facilitator*** Self-directed online interactive format ***Program extent*** Sessions at user discretion. Average usage 228 mins Average logins: 6 8 weeks ***Participants*** n=100 (48% girls) Mean age: 4.57 Ethnicity: 75% native SES: Average. Educational attainment above average, perceptions of financial adversity common ***Dropout rate at follow-up***	***Control condition*** Waitlist ***Participants*** n=100 (42% girls) Mean age: 4.26 Ethnicity: 75% native SES: Average. Educational attainment above average, perceptions of financial adversity common ***Dropout rate at follow-up*** 13% at 9 months	***Outcome*** Child behavior, adjustment and parental efficacy ***Measures*** ECBI CAPES PS ***Results*** Child measures Both groups improved at post-test. No significant differences between groups. Significant improvement for I vs C on ECBI intensity, d=0.41 at follow up. Marginal time and group differences on CAPES.

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome measures
	program (i.e., disobedience, fighting and aggression, going shopping, self-esteem) as an area of concern Exclusion Child disability including language and speech impairment The parents were currently seeing a professional for the child's behavior difficulties The parents were receiving psychological help The parents were intellectually disabled. ***Length of follow up*** 9 months; unclear whether post baseline or posttest	13% at 9 months		Parental measures PS Moderate short term effects favoring intervention maintained at follow-up, d=0.31 to 0.51. ***Program integrity*** NR ***Attendance rate*** 40% completed all 5 modules. 25% did not complete any modules
Bodenmann 2008 [80] (förra rapporten) Switzerland	***Aim*** Efficacy of Triple P in couples ***Study design*** Individual RCT ***Prevention level*** Universal ***Setting*** Recruitment via advertisements in newspapers in Switzerland. ***Population*** Couples with children aged 2–12 years interested in getting help with better management of	***Name of program*** Triple P level 4 ***Facilitator*** Accredited Triple P provider ***Program extent*** Nb sessions: 4 group sessions and 4 individual telephone consultations Time/session: 2.5 hours (group sessions) and 15–30 min (telephone consultations) Duration (weeks): 8 ***Participants*** n=50 (46.9% girls)	***Control condition*** C1: No intervention C2: Marital distress prevention program (not included here) ***Participants*** n=50 (49% girls) Mean age: 6.7 years Ethnicity: 89.6% swiss citizenship Education of mother: 30.6% college/university Family annual income: Not reported ***Dropout rate at follow-up*** C1: 20% women and 26% men dropped out from at least one	***Outcome*** Externalizing behavior Parental behavior ***Measures*** ECBI PS (laxness+over-reactivity) ***Results*** ECBI: I significantly better than no intervention(C1) at 1 year follow-up for ECBI. Parental measures: I significantly better than

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	everyday family life. ***Inclusion and exclusion criteria*** ***Length of follow up*** 6 months and 12 months follow up	Mean age: 6.4 years Ethnicity: 94% swiss citizenship Education of mother: 30.6% college/university Family annual income: 92%>$40 000 ***Dropout rate at follow-up*** 4% women and 6% men dropped out from at least one timepoint	timepoint	C1 at 1 year follow up for mothers d=0.41, but not for fathers on PS. ***Program integrity*** Regular supervision and session checklists ***Attendance rate*** Not reported
Chu 2015 [81] New Zealand	***Aim*** Efficacy of GTTP as a universal intervention to reduce family risk factors associated with the development of adolescent problem behaviors. ***Study design*** Individual RCT ***Prevention level*** Universal ***Setting*** Community locations across Auckland ***Population*** Adolescents 12–15 years ***Inclusion and exclusion criteria*** Inclusion Child did not have a developmental or intellectual disability	***Name of program*** GTTP ***Facilitator*** Accredited Triple P facilitators ***Program extent*** Nb sessions: 4 Time/session 2h Duration 8 ***Participants*** n=35 (40.6% (total sample) girls) Mean age: 12.9 years (total sample) Ethnicity: Composition comparable to NZ nationwide SES: Above average ***Dropout rate at follow up*** n=27 (22.9%)	***Control condition*** CAU ***Participants*** n=37 Ethnicity: Composition comparable to NZ nationwide SES: Above average ***Dropout rate at follow up*** n=31 (16.2%)	***Outcome*** Problem behavior Parental behavior ***Measures*** SDQ PBC PSA ***Results*** SDQ (mother): Intervention group had significantly lower score posttest. Results maintained at follow-up (d=0.50). At follow-up, adolescent rated SDQ significantly lower in the intervention group, d=0.92. <u>PBC self-report:</u> No difference between groups at posttest but significantly lower scores

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	The child or parent did not currently see a professional for psychological or emotional problems. ***Length of follow up*** 6 months			for intervention group at follow-up, d=0.82 <u>Parental measures:</u> Significant differences at post and 6 months follow-up. PS laxness post: d=0.82, 6 months: d=0.84 PS over reactivity post: d=0.90, 6 months d=0.57 ***Program integrity*** Checklists employed. No analysis reported. ***Attendance rate*** Not reported
Frank 2015 [82] New Zealand	***Aim*** Efficacy of an adaption to enhance father engagement and teamwork. ***Study design*** Individual RCT ***Prevention level*** Indicated ***Setting*** Research, Auckland urban area ***Population*** Advertisement recruited ***Inclusion and exclusion criteria*** <u>Inclusion:</u>	***Name of program*** Triple P, level 4 ***Facilitator*** Accredited Triple P facilitators ***Program extent*** Nb sessions: Five face to face sessions Three telephone sessions Time/session: Face to face: 2 h Telephone: 30 min Duration (weeks): 8 weeks ***Participants***	***Control condition*** Wait-list ***Participants*** n=19 ***Dropout rate at follow up*** n=1 mother, 2 fathers (5.3%)	***Outcome*** Disruptive behavior Parent behavior ***Measures*** ECBI I and P PS ***Results*** Child Maternal reports: ECBI I: No significant post differences I vs C. Significant decrease for intervention group vs control at follow up, d=0.95. ECBI P: Significantly

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	Children: 3–8 years ECBI >55 by one parent and >45 by the other Both parents involved in raising their child Exclusion: Child had a developmental disability parents were currently seeing a professional for the child's behavior difficulties or their own psychological needs ***Length of follow-up*** 6 months	n=23 (31% girls total) Mean age: 5.55 years Ethnicity: 81% of New Zealand and European decent SES: above average ***Dropout rate at follow up*** n=2 mothers, 3 fathers (8.7%)		lower post-score in intervention group vs control. Not maintained at follow up. Paternal: Significantly lower post-scores in intervention group vs control for ECBI intensity and ECBI problem which were maintained at follow-up, d=0.91 and d=1.19 respectively. Parental measures: moderate to high effects posttest favoring intervention. Results maintained at follow up, d=0.62 for fathers and d=1.07 for mothers. ***Program integrity*** 97% ***Attendance rate*** NR
Heinrichs 2006 [83] Heinrichs 2014 [84]	***Aim*** Effectiveness ***Study design*** Cluster RCT, stratified by social structure ***Prevention level***	***Name of program*** Triple P ***Facilitator*** Licensed trainers ***Program extent*** Nb sessions: 4	***Control condition*** No parenting intervention ***Participants*** n=94 (49% girls total) ***Dropout rate at follow up*** n=10 (10.6%) at 48 months	***Outcome*** Child behavior and emotional disturbances Parental behavior ***Measures*** CBCL C-TRF

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
Heinrichs 2017 [85] Germany	Universal ***Setting*** Preschools in Braunschweig, Germany ***Population*** Children 2–6 years ***Inclusion and exclusion criteria*** Child age: 2.6 to 6 years Exclusion: Siblings of children already enrolled in the study and families with problems in communicating in German. ***Length of follow-up*** Annually, up to 4 years	Time/session: 2h Duration (weeks) ***Participants*** n=186 (49% girls total) Mean age: 4.5 years (total sample) Ethnicity: Large majority Germans (total sample) SES: Schools with low degree of social problems overrepresented (total sample) ***Dropout rate at follow up*** n=18 (9.7%) at 48 months		PS ***Results*** <u>Child measures</u> Small effect on maternal rating in favor of intervention group at 1 and 2 years follow up, d=0.25 and d=0.32 for CBCL externalizing and at 4 years follow-up, d=0.19 for CBCL Total. No effect on paternal or teacher rating. <u>Parental measures</u> Significant reduction in parental dysfunction favoring intervention group at 1, 2 and 4 years follow up. d=0.18 and 0.24 at 4 years for fathers and mothers respectively ***Program integrity*** >90% ***Attendance rate*** 114 mothers attended at least ¾ sessions 144 mothers attended at least one session
Kirby 2014 [86]	***Aim*** Efficacy of Triple-P adapted for grandparents	***Name of program*** Adapted group Triple P for grandparents. Level 4	***Control condition*** CAU	***Outcome*** Child behavior problem Parental behavior

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
Australia	***Study design*** RCT individual level ***Prevention level*** Indicated ***Setting*** Research, Queensland, Australia ***Population*** Grandparents with concern about the functioning of their grandparents or in clinical range of stress, depression or anxiety, self-referral ***Inclusion and exclusion criteria*** <u>Inclusion</u> Grandparents providing at least 12 h care per week Child age: 2–9 years <u>Exclusion</u> Disability (child and grandparent) Currently professional help (parents) ***Length of follow-up*** 6 months	***Facilitator*** NR ***Program extent*** Nb sessions: 6 Time/session: 2 h Nb telephone sessions: 3 Time/session: 20/30 min Duration (weeks): 8 ***Participants*** n=28 (39.3% girls) Mean age: 4.88 Ethnicity: Predominantly Caucasian/Australian SES: NR ***Dropout rate at follow up*** n=4 (14.3%)	***Participants*** n=26 (38.5% girls) Mean age: 3.92 Ethnicity: Predominantly Caucasian/Australian SES: NR ***Dropout rate at follow up*** n=1 (3.8%)	***Measures*** ECBI IS and PS PS ***Results*** <u>Child measures</u> Significantly lower ECBI IS and PS scores favoring the intervention group posttest. Results maintained at follow up. <u>Parental measures</u> No significant group differences reported by grandparents. ***Program integrity*** NR ***Attendance rate*** Grandparents attended m=8.65 of 9 sessions.
Kleefman 2014 [87] The Netherlands	***Aim*** Effectiveness of SSTP in reducing psychosocial problems in children with BMID	***Name of program*** SSTP ***Facilitator*** Accredited SSTP health care	***Control condition*** CAU ***Participants*** n=98 (41.8% girls)	***Outcome*** Child behavior Parenting ***Measures***

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	Study design RCT, individual ***Prevention level*** Indicated ***Setting*** Health care center ***Population*** Children 5–12 years with BMID and psychosocial problems ***Inclusion and exclusion criteria*** <u>Inclusion</u> IQ between 50 and 85 <u>Exclusion</u> The child lived in residential care (except foster care) ***Length of follow-up*** 6 months	professionals ***Program extent*** Nb sessions: 8–10 Time/session: 40–90 min Duration (weeks): 10–12 ***Participants*** n=111 (42.3% girls) Mean age: 9.91 years Ethnicity: 94.6% Dutch SES: Medium/high ***Dropout rate at 6 months*** n=56 (50.4%)	Mean age: 9.65 years Ethnicity: 99% Dutch SES: Medium/high ***Dropout rate at 6 months*** n=7 (7.1%)	SDQ ECBI APQ ***Results*** No significant differences between groups on parent rated ECBI or SDQ total Significant improvement on teacher rated SDQ total favoring intervention group posttest. Results were not maintained at follow up. No significant differences between groups on parenting ***Program integrity*** NR ***Attendance rate*** Participation varied between 5–10 sessions among completers.
Malti 2011 [88] Eisner 2012 [89] Averdijk	***Aim*** Effectiveness of Triple-P, PATHS and PATHS + Triple-P ***Study design*** Cluster RCT (four groups) ***Prevention level*** Universal	***Name of program*** Triple P level 4 ***Facilitator*** Licensed Triple P providers ***Program extent*** Nb sessions: 4 Time/session: 2–2.5h	***Control condition*** No intervention (C) PATHS PATHS + Triple P ***Participants C*** n=360 ***Participants PATHS***	***Outcome*** Aggressive behavior Non-aggressive conduct disorder Parenting ***Measures*** SBQ rated by self, parents and teachers

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
2016 [90] Malti 2012 [91] Switzerland	 ***Setting*** 56 elementary schools in Zürich, Switzerland ***Population*** Children entering the 1st year of elementary school in the city of Zurich, Switzerland. ***Length of follow-up*** 2-, 14- and 38-months post intervention	Duration (weeks): 8 ***Participants*** n=339 (48% girls, total sample) Mean age: 7.45 years (total sample) Ethnicity: 45% of non-Swiss nationality total SES: ISEI 44.6 (total) ***Dropout rate at follow up*** n=18 (5%) at 14 months n=68 (20%) at 38 months	n=339 ***Participants Triple P + PATHS*** n=309 ***Dropout rate at follow up no intervention*** n=16 (4%) at 14 months n=57 (16%) at 38 months ***Dropout rate at follow up PATHS*** n=7 (2%) at 14 months n=46 (14%) at 38 months ***Dropout rate at follow up PATHS + Triple P*** n=10 (3%) at 14 months n=52 (17%) at 38 months	APQ ***Results*** Triple P vs C No significant differences in child behavior reported by parent, teacher or child at any time No significant group differences in any of the parental outcomes at any time of observation in those that completed the intervention. ***Program integrity*** NR ***Attendance rate*** N=235 enrolled in one of the Triple P courses n=144, parents completed all four Triple P sessions.
Palmer 2019 [92] New Zealand	***Aim*** Efficacy of TPDG/SET for children with ***Study design*** RCT individual ***Prevention level*** Indicated ***Setting*** Research, Auckland area	***Name of program*** TPDG/SET (sufficient exemplar training) ***Facilitator*** Accredited Triple P discussion group trainer ***Program extent*** Nb sessions: 6 Time/session: 2 Duration (weeks): 8	***Control condition*** DDDG Triple P ***Facilitator*** Accredited Triple P discussion group trainer ***Participants*** n=35 (34.3% girls) Mean age: Ethnicity: Predominantly New Zealander/European	***Outcome*** Child and parental behavior ***Measures*** ECBI IS and PSSDQ total PS ***Results*** <u>Child outcomes</u> Significant reduction in ECBI IS and PS favoring

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	Population Recruitment method not mentioned ***Inclusion and criteria*** Inclusion: Child 5–8 years ECBI ≥45 <u>Exclusion:</u> Child: developmental or intellectual disability or other health impairment, regular contact with a health professional for behavioral problems Parent: currently seeing a mental health professional for emotional or psychological problems. ***Length of follow-up*** 6 months	***Participants*** n=43 (37.2% girls) Mean age: Ethnicity: Predominantly New Zealander/European SES: Average/Above average ***Dropout rate at 6 months*** n=9 (20.9%)	SES: Average/Above average ***Dropout rate at 6 months*** n=12 (34.3%)	SET at posttest. Results maintained at follow up, d=0.42 and 0.61. No significant differences in SDQ. <u>Parental outcomes</u> Significant improvement in parenting style at posttest which were maintained at follow up, d=0.53 ***Program integrity*** 92.5% ***Attendance rate*** NR
Plant 2007 [93] Australia	***Aim*** Effectiveness of two versions of SSTP ***Study design*** Individual RCT ***Prevention level*** Indicated ***Setting*** Research, Queensland, Australia	***Name of program*** Enhanced SSTP ***Facilitator*** Psychologist and post graduate training psychologists. ***Program extent*** Nb sessions: 16 Time/session: 60–90 min Duration (weeks): 16	***Control condition*** C1: Standard SSTP C2: Waitlist ***Facilitator*** ***Participants C1*** n=26 (30.8% girls) Mean age: 54.62 Ethnicity: NR SES: average/above average	***Outcome*** Child and parental behavior ***Measures*** FOS-NCB and FOS-NPB DBC-D CPC-B PS ***Results*** <u>Intervention vs. waitlist</u>

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	Population Recruitment via advertisement at government early intervention services ***Inclusion criteria*** Child age: <6 years Development disability ECBI IS ≥131 or PS ≥15 ***Length of follow-up*** 12 months	***Participants*** n=24 (29.2% girls) Mean age: 56.63 months Ethnicity: NR SES: average/above average ***Dropout rate 12 months*** n=2 (5%)	***Dropout rate 12 months*** n=4 (16%) ***Participants C2*** n=24 (16.7% girls) Mean age: 54.04 Ethnicity: NR SES: average/above average ***Dropout rate 12 months*** n=4 (16%)	Significantly lower scores on FOS-NCB and CBC-B in comparison to control Intervention vs. standard SSTP: Significantly lower scores on CPC-B for intervention at post measurement. At follow up DBC-D significantly lower in comparison to control. ***Integrity*** 100% ***Attendance rate*** NR
Sampaio 2015 [94] Sweden	***Aim*** Costs and effectiveness of levels 2 and 3 of the Triple P ***Study design*** Cluster RCT ***Prevention level*** Universal ***Setting*** All preschools in Uppsala municipality; 22 were interested ***Population*** Self-selected parents to children 2–5 years ***Length of follow-up***	***Name of program*** Triple P level 2 and 3 ***Facilitator*** NR ***Program extent*** Level 2: 3x90 min group seminars Level 3: up to 4 15–20 min individual sessions ***Participants*** n=234 (% girls NR) Mean age: Ethnicity: 89% had parent born in Sweden SES: mixed	***Control condition*** Waitlist ***Participants*** n=121 (% girls NR) Mean age: Ethnicity: 87% had parent born in Sweden SES: mixed ***Dropout rate at follow up*** 17% at 6 months 31–34% at 12 and 18 months	***Outcome*** Child behavior, based on children at least 3 years old ***Measures*** ECBI-22 ***Results*** No significant group differences at any of the follow ups. ***Program integrity*** NR ***Attendance rate*** 29% of the parents attended at least one session

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	6, 12, 18 months	***Dropout rate at follow up*** 20% at 6 months 36–37% at 12 and 18 months		
Sanders 2014 [95] New Zealand	***Aim*** Effectiveness of Triple P Online Program (TPOL) vs Self-help Triple P (SHTP) ***Study design*** Individual stratified RCT noninferiority trial ***Prevention level*** Indicated ***Setting*** Research ***Population*** Children 3–8 with elevated levels of disruptive behavior ***Length of follow-up*** 6 months	***Name of program*** TPOL ***Program extent*** Online access 8 modules with the same content as SHTP ***Participants*** n=97 (33% girls total) Mean age: 5.63 total sample Ethnicity: Predominantly New Zealand European SES: Average, above average ***Dropout rate at follow up*** n=9 (9.3%) 6 months	***Control condition*** Every Parent's Self-Help workbook (SHTP) ***Description*** 10 weekly sessions including suggested homework ***Participants*** n=96 (33% total) Mean age: 5.63 total sample Ethnicity: Predominantly New Zealand European SES: Average, above average ***Dropout rate at follow up*** n=7 (7.3%) at 6 months	***Outcome*** Child behavior Parenting style ***Measures*** ECBI PS ***Results*** ***Child outcomes*** Both groups improved. TPOL was noninferior to SHTP. **Parental outcomes** No significant group differences at post and follow up. ***Program integrity*** NR ***Attendance rate*** NR
Sanders 2000 [96] Australia	***Aim*** Compare three versions of Triple P ***Study design*** Individual RCT ***Prevention level***	***Name of program*** Enhanced Triple P Level 5 ***Facilitator*** 12 practitioners (psychologists or psychiatrists) ***Program extent***	***Control condition*** Standard Triple P Level 4 Self-directed Triple P Level 4 Waitlist for posttest (not reported here) ***Facilitator*** See Intervention group	***Outcome*** Child and parent behavior ***Measures*** ECBI SESBI DISC PS

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	Indicated ***Setting*** Community health and neighborhood centers ***Population*** Advertisement recruitment, children 3–4 years ***Inclusion and exclusion criteria*** ECBI IS>127 or PS>11 At least one of the following: (a) maternal depression; BDI≥20 (b) relationship conflict; PPC≥5 (c) single parent (d) low SES Exclusion (a) developmental disorder or significant health impairment (b) child getting help for behavioral problems (c) the parents currently receiving therapy for psychological problems or intellectually disabled ***Length of follow-up*** 12 and 36 months	Nb sessions: 17 Time/session: 60–90 min Duration (weeks): 17 ***Participants*** n=79 Mean age: 84.94 months Ethnicity: Caucasian ***Dropout rate at follow up*** n=25 (32%) at 12 months n=31 (39%) at 36 months	***Description*** ***Participants*** Standard Triple P n=77 Mean age: 82.63 months Ethnicity: Caucasian Self-directed Triple P n=78 Mean age: 83.72 months Ethnicity: Caucasian ***Dropout rate at follow up*** Standard Triple P 25% at 12 months and 35% at 36 months Self-directed Triple P 36% at 12 months and 48% at 36 months	***Results*** All groups improved without significant differences between groups ***Program integrity*** 100% ***Attendance rate***
Sanders 2012 [97] Australia	***Aim*** Efficacy of TPOL. ***Study design*** RCT individual	***Name of program*** Triple P online level 4 ***Facilitator*** Self directed online access	***Control condition*** Internet as usual ***Participants*** n=56 (35.7% girls) Mean age: 4.41 years	***Outcome*** Child and parent behavior ***Measures*** ECBI SDQ

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	Prevention level Indicated ***Setting*** Research ***Population*** Advertising. Parents to children 2–9 years ***Inclusion and exclusion criteria*** <u>Inclusion</u> (a) elevated ECBI (b) access to a computer and broadband internet connection (c) parent ability to read English at Year 5 level. <u>Exclusion</u> See Sanders 2000 problems. ***Length of follow-up*** 6 months	***Program extent*** Nb sessions: 8 modules ***Participants*** n=60 (30% girls) Mean age: 4.92 years Ethnicity: 91% Australian total SES: Above average ***Dropout rate at follow up*** n=13% at 6 months	Ethnicity: 91% Australian total SES: Above average ***Dropout rate at follow up*** n=14% at 6 months	PS ***Results*** <u>Child outcomes</u> Significantly lower scores for intervention vs control in ECBI problem and intensity at post measurement and follow up, d=0.74 and 0.60. Significantly lower scores for intervention vs control for SDQ conduct and emotion at posttest but not at follow up. <u>Parental outcomes</u> Significant improvement in parenting style at post assessment and follow up, d=0.69 till 0.84. ***Program integrity*** NR ***Attendance rate*** 43% had completed all modules posttest
Spijkers 2013 [98] The Netherlands	***Aim*** Effectiveness of Triple P in primary care ***Study design*** Individual RCT	***Name of program*** Primary care Triple P level 3 ***Facilitator*** Triple P practitioners ***Program extent***	***Control condition*** CAU ***Facilitator*** ***Description***	***Outcome*** Child and parent behavior ***Measures*** SDQ ECBI

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome measures
	Prevention level Indicated ***Setting*** Routine community pediatric care ***Population*** Normal risk population of primary school children, 9–11 years ***Inclusion and exclusion criteria*** Inclusion SDQ total ≥11 <u>Exclusion</u> 1) developmental delay or disorder 2) child currently receiving treatment for behavioral problems; 3) chronic disease involving three or more medical consultations in the previous 2 months; 4) parental divorce, death, or severe illness of someone to whom the child is attached in the previous 6 months; 5) parents in therapy for psychological or relationship problems; 6) parents unable to read or speak Dutch; 7) behavioral or emotional problems in the child beyond the scope of PCTP; 8) situations involving child safety such as child maltreatment, parental	Nb sessions: 4 Time/session: 20–30 min Duration (weeks) ***Participants*** n=47 (55.6% girls) Mean age: 10.57 Ethnicity: SES: Other characteristics: ***Dropout rate post*** n=32 (32%) ***Dropout rate 6 months*** n=27 (42.5%) ***Dropout rate 12 months*** n=30 (36.2%)	***Participants*** n=46 (32.4% girls) Mean age: 10.6 Ethnicity: SES: Other characteristics: ***Dropout rate post*** n=33 (28.3%) ***Dropout rate 6 months*** n=27 (41.3%) ***Dropout rate 12 months*** n=30 (34.8%)	***Results*** <u>Child and parent outcomes</u> No significant differences intervention vs control at any point of measurement. ***Program integrity*** NR ***Attendance rate*** The number of PCTP sessions varied from one to four

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
	psychiatric disorder, or alcohol or drug abuse. ***Length of follow-up (months)*** Post 6 months 12 months			
Tellegen 2014 [99] Australia	***Aim*** Efficacy ***Study design*** RCT, individual ***Prevention level*** Indicated ***Setting*** Unclear, but took place in one large city ***Population*** Self- selected, advertisements and information through health care and support organizations ***Inclusion criteria*** Child 2–9 years with an ASD diagnosis from a pediatrician or child psychiatrist Parental concern about social, emotional, behavioral or developmental problems ***Length of follow-up*** Posttest and 6 months later	***Name of program*** Stepping Stones Triple P ***Facilitator*** Practitioners with degrees in psychology and accredited in the program ***Program extent*** Nb sessions: 4 Time/session: according to need, 15 to 105 min Duration: app 8 weeks ***Participants*** n=35 (6 girls) Mean age: 5.66 (2.18) Ethnicity: 88% White Employment of father: 90% Higher education: 54% ***Dropout rate*** 7/35	***Control condition*** CAU and wait list ***Participants*** n=29 (3 girls) Mean age: 5.69 (2.12) Ethnicity: 89% White Employment of father: 95% Higher education: 59% ***Dropout rate*** 3/29	***Outcome*** Child behavior problems Parenting ***Measures*** ECBI IS and PS Parental Scale Observation of child and parent interaction ***Results*** Significant difference between groups in child behavior and dysfunctional parenting at posttest and follow up. No difference between groups on observed child and parent behaviors posttest and at follow up. ***Program integrity*** 97% of content was completed ***Attendance*** 24/35 attended all

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome measures**
Tully 2017 [100] Australia	***Aim*** Effectiveness of two versions of Triple P for toddler parents ***Study design*** Individual RCT ***Prevention level*** Indicated ***Setting*** Self-referral from a community media campaign and flyers sent to child care centers ***Population*** Children 2–3 years ***Inclusion criteria*** (a) child aged 24–47 months; (b) parent concerned about child PA; (c) 1 SD above the mean on PA-SEC; (d) parent/s able to complete questionnaires in English; (e) no child developmental delay or disability; (f) not on treatment for child behavior ***Length of follow-up*** 6 months	***Name of program*** Standard Triple P ***Facilitator*** First author, a registered psychiatrist, accredited in Triple P. ***Program extent*** Nb sessions: 4 face-to-face 4 telephone calls Time/session face-to-face: 2h, telephone: 20 min Duration: 8 weeks ***Participants*** n=23 (30.4% girls (total)) Mean age: 31 months (total) Ethnicity: Predominantly Australian (total) SES: 51% of parents had university degree (total) ***Dropout rate at 6 months*** 26%	***Control condition*** Brief parenting intervention (BPI), level 3 Triple P discussion group Waitlist (posttest only) ***Facilitator*** As for the Intervention ***Description*** One group session: 2 hours Two telephone sessions: 20 min each ***Participants BPI*** n=24 ***Participant's waitlist*** n=22 ***Dropout rate at follow up*** <u>BPI</u> 25%	***Outcome*** Child and parent behavior ***Measures*** Observations PA-SEC CBCL PS ***Results*** <u>Child outcomes</u> Significant reduction favoring standard Triple P vs BPI or waitlist in observed aggression, maternal PA-SEC and CBCL aggression posttest. No significant differences at follow up. <u>Parental outcomes</u> At posttest significant improvement (intervention vs WL and intervention vs BPI) in parenting style on most PS scales. Moderate effect size. No significant group differences at follow up ***Program integrity*** 99.5% ***Attendance rate*** SPI families received an average of 6.9/8 group/

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome measures
				telephone sessions and average participation time was 8 hr 23 min. Mothers and partners attended 89% and 49% of all group sessions, respectively. BPI families received an average of 2.9/3 sessions and average participation time was 2 hr 36 min. Overall 92% of mothers and 79% of partners attended the single group session

APQ = Alabama Parenting Questionnaire; **BPI** = Behavior Problems Index; **CBCL** = Child Behavior Check List; **CPC-B** = Care-giving Problem Checklist-Difficult Child Behavior; **C-TRF** = Caregiver-Teacher Report Form; **DBC-D** = Developmental Behavior Checklist-Disruptive Subscale; **ECBI** = Eyberg Child Behaviour Inventory; **FOS-NCB** = Family Observation Schedule - Observed Negative Child Behavior; **FOS-NPB** = Family Observation Schedule - Observed Negative Parent Behavior; **SDQ** = Strengths and Difficulties Questionnaire; **PBC** = Problem Behaviour Checklist

Skolprogram

Coping Power

Tabell Coping Power.

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
Muratori 2015 [101] Muratori 2016 [102] Italy	***Aim*** Effectiveness of Coping Power at universal level ***Study design*** Cluster RCT (classrooms) ***Prevention level*** Universal ***Setting*** Two schools in Italy ***Population*** Students in 1st and 2end grades ***Inclusion and exclusion criteria*** None reported ***Length of follow-up*** Short-term: 1 year	***Program deliverer*** CPP-certified trained psychologists and class teachers. ***Program extent*** ***Coping Power Program classroom-based version*** Nb sessions: 24 Time/session: 60–75 min Duration (weeks): 24 weeks ***Participants*** [3] K=5 classes in 2 schools n=113 (49% girls) Mean age: 92 months Ethnicity: 84% Italians SES: NR ***Dropout rate at follow-up*** n=13 (12%)	***Control condition*** No intervention ***Participants*** K=4 classes in 2 schools n=71 (55% girls) Mean age: 89 months Ethnicity: 80% Italians SES: NR ***Dropout rate at follow-up*** n=9 (13%)	***Outcome*** Total emotional and behavioral difficulties, conduct problems, emotional problems ***Measures*** SDQ teacher version ***Results*** <u>Post test</u> Significant positive results for SDQ total for intervention group compared to the control. NS differences on conduct or emotional problems. <u>At follow up</u> Still sig positive results for total difficulties for intervention group compared to the control, η^2=0.42. No sig results on conduct or emotional problems. ***Attendance rate*** ***Program integrity*** A certified CPP supervisor

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
				completed a checklist about variations from the manual, mean score 2.90 (SD=0.40) (note: mean score 3.60, reported in the follow up study.
Lochman 2002 [103] Lochman 2002 [104] Lochman 2013 [105] USA	***Aim*** Add-on effect of interventions directed at teachers and parents ***Study design*** Cluster RCT (for classroom intervention), individual (for Coping Power) ***Prevention level*** Indicated ***Setting*** 60 classes in 17 schools in the USA ***Population*** Students in 4nd grade at risk for aggression ***Inclusion and exclusion criteria*** Teachers rated all children (verbally aggressive, physically aggressive, and disruptive). 31% of most aggressive children across all classes were selected ***Length of follow-up*** 1 year and 3,5 years	Three intervention groups: I1: Coping Power only I2: Classroom Intervention only I3: I1 + I2 ***Program deliverer*** I1 Most group sessions were co-led by a grant-funded school-family program specialist and by a school guidance counsellor I2 Teacher meetings: a Coping Power staff member Parent sessions: NR ***Program extent*** I1 Nb sessions: 34 group sessions (40–50 min each) and bimonthly individual sessions (30 min each) for children; 16 session for parents Duration: 16 months I2 Nb sessions: 5 sessions for teachers and 4 for parents Time/session: 2 hour per session for teachers, NR for parents	***Control condition*** Service as usual (SAU) ***Participants*** n=63 (32% girls) Mean age: NR Ethnicity: 81% African Americans ***Dropout rate at follow-up***	***Outcome*** Delinquency Aggressive behavior Parenting ***Measures*** Delinquency score drawn from NYS TOCA-R aggression subscale ***Results*** Significant reduction in delinquency compared to SAU for I1 (d=0.35) and I3 (d=0.21), but not I2. No significant difference for aggressive behavior in the school setting for Coping Power compared to control at 1 and 3.5 years follow up. Decline from baseline to 3.5 years significantly greater in I1 + I3 compared to SAU + I2 No significant differences between I1 and I3 in delinquency or aggressive behavior at 1 year follow

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
		Duration: during 5th academic year (teachers), 3 sessions in 5th grade and one in 6th grade (parents) ***Participants*** <u>I1</u> n=59 (34% girls) Mean age: NR Ethnicity: 78% African Americans <u>I2</u> n=62 (37% girls) Mean age: NR Ethnicity: 78% African Americans <u>I3</u> n=61 (32% girls) Mean age: NR Ethnicity: 75% African Americans ***Dropout rate at 1 years follow up*** Reported for the full sample only Child report: 17% Teacher report: 34% <u>Parent outcomes</u> Parent report: 14% Teacher reports: 32%		up. ***Attendance rate*** Classroom Intervention Teacher meetings: 63% overall Parent meetings: 21% attended at least one meeting Coping Power Child group sessions: 85% Parent group sessions: 26% overall, 62% attended at least one session ***Program integrity*** Checklists of planned session objectives Completed by group leaders, over 90% of session objectives were delivered.
Lochman 2004 [106] USA	***Aim*** Efficacy of CP ***Study design***	***Program deliverer*** <u>I1 Coping Power child intervention</u> Co-led by a grant-funded staff	***Control condition*** Service as usual ***Deliverer***	***Outcome*** Delinquency (covert and overt)

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome Measures Results Attendance rate
	Individual RCT ***Prevention level*** Indicated ***Setting*** 11 schools in the USA ***Population*** 4th and 5th grade male students (10–11-year-olds) with elevated level of aggression ***Inclusion and exclusion criteria*** Only boys were eligible. Boys who scored as at risk by BOTH teachers and parents. Boys participating in other prevention research studies were excluded. ***Length of follow-up*** 1 year	family-school program specialist (FSPS) with a master's or doctoral degree in psychology or social work and by a school guidance counselor <u>I2 Coping Power child intervention + parent intervention</u> Led by two grant staff persons (typically one FSPS and one graduate student). ***Program extent*** <u>I1</u> Nb sessions: 33 (child component) Time/session: 40–60 min Duration: 65 weeks <u>I2</u> Child sessions as described above + parent sessions: Nb sessions: 16 Time/session: NR Duration: 65 weeks ***Participants*** n=60 in each intervention condition (0% girls) Ethnicity (full sample): 38% Caucasian, 61% African American ***Dropout rate at 1 year follow-up***	***Description*** ***Participants*** n=63 (0% girls) ***Dropout rate at follow-up***	***Measures*** NYS delinquency section (self-report) Mean of two items indicating children's improvement in behavioral problems and in their problem solving and anger management (teacher rated) ***Results*** <u>At follow up</u> Compared to control group: sig. greater reductions in covert delinquency for boys in I2 (d=0.42, but not I1. No significant intervention effects for child reported overt delinquency Compared to control group: sig. greater teacher rated behavioral improvement in I1 (d=0.42) and in I2 (d=0.34). ***Attendance rate*** Child: 83% Parents: 49% ***Program integrity***

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
		Reported for the full sample: Child self-report 30%, parent report 31% and teacher report 27%		NR
Lochman 2015 [107] USA	***Aim*** Comparison of two delivery versions of CP ***Study design*** Cluster RCT (schools) ***Prevention level*** Indicated ***Setting*** 20 schools in the USA ***Population*** 4th grade students with elevated level of aggression (six students from each school for each annual cohort) ***Inclusion and exclusion criteria*** Children who scored at or above the cut-off score set at the 25th percentile on Teacher Report of Reactive and Proactive Aggression AND were rated by their parents within or above the average range on BASC Aggression scale. ***Length of follow-up*** 1 year	***Group CP (child component in the standard version)*** ***Program deliverer*** Two Coping Power leaders ***Program extent*** Nb sessions 32 group sessions + brief monthly individual sessions Time/session: 50–16 min Duration: during the end of 4th grade and throughout 5th grade (about 40 weeks?) ***Participants[3]*** K=10 schools n=177 for teachers reported outcome and 180 for parent reported outcome Provided for the total sample only: n=NR (35% girls) Mean age: 10.17 (range 9.17–11.79) Ethnicity: 78% African American SES: (only family income reported with no interpretation offered)	***Individual CP*** ***Deliverer*** A Coping Power leader ***Program extent*** Nb sessions: 32 Time/session: 30 min Duration: as for intervention ***Participants*** K=10 schools n=178 for teachers reported outcome and 180 for parent reported outcome ***Dropout rate at follow-up*** Teacher report: 23% Parent report: 21%	***Outcome*** Internalizing and externalizing behavior ***Measures*** BASC Externalizing and Internalizing scores ***Results at follow-up*** ICP produced greater reductions in growth rates of teacher-rated internalizing and externalizing behavior across time than did GCP (ex: effect size: δ=0.30 and 0.35 respectively), but the two conditions did not significantly differ in parent-rated internalizing and externalizing behavior. ***Attendance rate*** GCP: average 28.54 sessions (range = 0 to 34) ICP: average 28.96 (range =3 to 34) ***Program integrity*** GCP leaders and ICP leaders rated that they completely or partially

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome Measures Results Attendance rate
		Dropout rate at follow-up Teacher report: 16% Parent report: 13%		completed 91.07% and 86.43% of objectives, respectively.

SDQ = Strengths and Difficulties Questionnaire

Good Behavior Game/PAX

Tabell Good Behavior Game/PAX.

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome Measures Results Attendance rate
Ashworth 2019 [108] UK	***Aim*** Effectiveness ***Study design*** Cluster RCT (schools) ***Prevention level*** Universal ***Setting*** 77 primary schools in England ***Population*** Children in 3rd grade (6–7 years) ***Inclusion and exclusion criteria*** Eligible schools: mainstream, state-maintained primary schools (serving children aged 4–11 years)	***Program deliverer*** Teachers ***Program extent*** Nb sessions: 1.5–2 sessions per week Time/session: 15 min Duration (weeks): 2 years ***Participants*** K=38 schools n=1560 (50% girls) Ethnicity: 33% minorities SES: 27% children eligible for free school meals ***Dropout rate at follow-up*** 10%	***Control condition*** CAU ***Participants*** K=39 schools n=1524 (45% girls) Ethnicity: 34% minorities SES: 23% children eligible for free school meals ***Dropout rate at follow-up*** 11%	***Outcome*** Disruptive behavior ***Measures*** TOCA-C ***Results*** No overall effect on disruptive behavior No statistically significant subgroup effects of the GBG (children were categorized to low, moderate and high cumulative risk groups based on individual and school level risk factors) ***Attendance rate*** 96%

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
	Length of follow-up 2 years after baseline (intervention implemented continuously over 2 years			***Program integrity*** Average scores for program integrity/quality: 70%
Ialongo 1999 [109] Ialongo 2001 [110] USA	***Aim*** Effectiveness of two interventions ***Study design*** Cluster RCT (block design with schools serving as the blocking factor) ***Prevention level*** Universal ***Setting*** 9 public elementary schools in urban USA ***Population*** Students in three 1st grade classrooms in each school 678 children (47% girls), Mean age: 6.2 Ethnicity: 87% African American, 13% Euro-American SES: 62% of the children received free lunch or lunch at a reduced price ***Inclusion and exclusion criteria*** None	***Program deliverer*** I1 (The Classroom-Centered (CC) Intervention which includes GBG): Teachers I2 (The Family-School Partnership (FSP) Intervention): School psychologist or social worker ***Program extent*** <u>I1</u> Nb sessions: weekly sessions Time/session: NR Duration: 1 year (during first grade) <u>I2 (parent workshops)</u> Nb sessions: 9 sessions Time/session: NR Duration: 7 weeks in fall plus 2 follow up sessions in the Winter and Spring during first grade ***Participants*** Mean age: 6.2 years (total sample) ***Dropout rate at follow-up*** Given for total sample only: n=56 (9%) at 9 months and 144 (22%) at 5 years past baseline	***Control condition*** CAU	***Outcome*** Behavior problems and conduct disorder ***Measures*** TOCA-R POCA DISC-IV ***Results*** <u>Posttest (1 year past baseline) and 1 year follow up</u> Teacher report: GBG boys showed significantly fewer problem behaviors than control boys (ES 0.49 and 0.54 posttest and 1 year follow up respectively). GBG girls showed significantly fewer problem behaviors than control girls (ES 0.30 and 0.73 posttest and 1 year follow up respectively). Parent report: NS <u>5 years follow up</u> Significant reduction in teacher reported conduct problems

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
	Length of follow-up 1 and 5 years after end of intervention (2 and 6 years past baseline)			Significant effect on the rate of a life-time diagnosis for conduct disorders for GBG ***Program integrity*** I1: average = 60%
van Lier 2005 [111] Vuijk 2007 [112] The Netherlands	***Aim*** Effectiveness ***Study design*** Cluster RCT (class) ***Prevention level*** Universal ***Setting*** 13 elementary schools in the metropolitan areas in the Netherlands ***Population*** Students in 1st grade ***Inclusion and exclusion criteria*** None ***Length of follow-up*** GBG was implemented for two years (during second and third grade) Yearly assessments from grade one to five (children aged 7–11 years)	***Program deliverer*** Teachers ***Program extent*** Nb sessions: up to three per week Time/session: 10–60 min Duration: 2 school years ***Participants*** K=16 classes n=371 children Given for total sample only (n=664): 49% girls Mean age: 6.9 Ethnicity: 31% minorities SES: 36% low SES ***Dropout rate at follow-up*** Given for total sample only By the age of 11, 31% missed one or more assessments (dropout rate not specified for each time point) Sample size in [158]: n=667 children of which 448	***Control condition*** No intervention ***Participants*** K=15 classes n=295 children	***Outcome*** Antisocial behavior, behavior problems ***Measures*** YSR subscales Anxious/Depressed Attention Problems and Aggressive Behavior (age 11 only) RCADS (age 13 only) ***Results*** <u>At age 11</u> GBG children reported lower levels of anxious/depressed problems (d=0.18), but no effects for attention problems or aggressive behavior. High risk children showed lower levels of aggressive behavior (d=0.68) and low risk children showed lower levels of anxious/depressed symptoms (d=0.31).

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome Measures Results Attendance rate
		were included in analyses (dropout: 219 (33%) at the last follow-up)		<u>At age 13</u> Positive outcomes for generalized anxiety, panic/agoraphobia, and major depressive disorder, but not social anxiety . ***Attendance rate*** NR ***Program integrity*** 9 schools implemented the GBG program completely, 3 implemented it, but did not move on to the generalization phase and 1 implemented it poorly [113].
Witvliet 2009 [114] The Netherlands	***Aim*** To explore the link between having positive peer relations and externalizing outcomes ***Study design*** Cluster RCT (classroom) ***Prevention level*** Universal ***Setting*** 30 elementary schools from two urban and one rural areas in the Netherlands	***Program deliverer*** Teachers ***Program extent*** Three phases during 2 years Introduction phase: familiarizing with the GBG by playing it three times a week for 10 min. Expansion phase: settings and targeted behaviors are expanded. Rewards are delayed for a week and then a month. Generalization phase: prosocial behavior outside GBG moments is promoted by explaining to children that the rules are also	***Control condition*** No intervention ***Participants*** K=16 classes n=257 Characteristics provided for the full sample only: 50% girls Mean age: 6.0 years Ethnicity: 44% minorities SES: 38% from low socioeconomic status families ***Dropout rate at follow-up***	***Outcome*** Externalizing behavior ***Measures*** PBSI (teacher report) ***Results at posttest*** Significant reduction of externalizing Problems for GBG children compared to controls (d=0.45). ***Attendance rate*** NR ***Program integrity***

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome Measures Results Attendance rate
	Population Students in 1st grade ***Inclusion and exclusion criteria*** None ***Length of follow-up*** Posttest: 1 and 2 years after the intervention started.	applicable when the game is not played. ***Participants*** K=31 classes n=501 ***Dropout rate at follow-up*** 15% at 24 months	14% at 24 months	NR
Streimann 2020 [115] Estonia	***Aim*** Effectiveness ***Study design*** Cluster RCT (school) ***Prevention level*** Universal ***Setting*** 42 elementary schools in rural and urban areas in Estonia ***Population*** Students in 1st grade (only one class per school) ***Inclusion and exclusion criteria*** Inclusion (for schools): ≥13 pupils in the 1st grade classroom Exclusion: schools focused on children with special educational needs, single-sex classrooms, schools who	***Program deliverer*** Teachers ***Program extent*** Used daily Duration: continuously during 1st and 2nd grade ***Participants*** K=19 schools/classes n=362 (51% girls) Mean age: 7.1 years SES: good financial situation for 71% and average for 27% Parental education: 51% at least one parent with higher education ***Dropout rate at follow-up*** 10% at 2 years	***Control condition*** Waitlist control ***Participants*** K=19 schools/classes n=346 (49% girls) Mean age: 7.1 years SES: good financial situation for 65% and average for 31% Parental education: 48% at least one parent with higher education ***Dropout rate at follow-up*** 8% at 2 years	***Outcome*** Total behavioral and emotional problems, conduct problems ***Measures*** SDQ by parents and teachers ***Results*** <u>Teacher-report:</u> Compared to controls significant reduction for GBG children in SDQ total difficulties both at 1 (d= –0.28) and 2 years (d= –0.39) post baseline and SDQ conduct problems at 1 (d= –0.25) but not 2 years post baseline <u>Parent report:</u> Compared to controls significant reduction for GBG children in emotional symptoms at 2 years post

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome Measures Results Attendance rate
	implemented an evidence-based programs ***Length of follow-up*** 1- and 2-year post baseline			baseline. No other significant results reported by parents. ***Attendance rate*** NR ***Program integrity*** Teachers on average used ¾ of the methods correctly

RCADS = Revised Children's Anxiety and Depression Scale; **SDQ** = Strengths and Difficulties Questionnaire

PATHS

Table PATHS.

Author Year Reference Country	Aim Study design Setting Population	Intervention Intervention group Dropout rate	Control Control group Dropout rate	Outcome Measures Results Program integrity Attention rate
Bierman 2008 [116] Nix 2016 [117] Bierman 2014 [118] Bierman 2021 [119]	***Aim*** Efficacy of PATHS in combination with a literacy program ***Study design*** Cluster RCT, stratified for percent minority, rural/urban, use of Spanish in the classroom ***Prevention level*** Selected ***Setting*** 25 Head start centers with 44	***Program deliverer*** Classroom teachers after 3 days training and 1 day booster 6 months later, weekly mentoring support by local educational consultants, supervised by project-based senior educational trainers ***Program extent (PATHS only)*** Intensity: one PATHS lesson and one extension activity/week Time/session: NR Duration: 33 weeks	***Control*** Curriculum as usual ***Participants*** Nb: 164 (22 classrooms) Ethnicity: 45% minorities ***Dropout rate at FU*** 12% at grade 9 (declined: 2%)	***Outcome*** Aggression ***Measures*** 7 items from TOCA-R (parents and teachers) (combined with 6 items from Preschool Social Behavior Scale-R at 1year FU) SDQ by blinded teachers at grade 7 and 9 ***Results*** 1 year: Significantly lower

Author **Year** **Reference** **Country**	**Aim** **Study design** **Setting** **Population**	**Intervention** **Intervention group** **Dropout rate**	**Control** **Control group** **Dropout rate**	**Outcome** **Measures** **Results** **Program integrity** **Attention rate**
USA	classrooms in three counties of Pennsylvania ***Population*** Two cohorts of 4-year old children (n=356); 86% participated ***Length of follow-up*** From preschool to grade 9	***Participants*** Nb: 192 (22 classrooms) Gender: 54% girls (total sample) Ethnicity: 39% minorities SES: 70% in poverty (total sample) 2% of parents had college education ***Dropout rate at FU*** 27% at grade 9 (declined: 6%)		aggression, assessed by teachers (β=0.26) and parents (β=0.23) 3rd grade (5 years): Significantly more likely to follow a low-decreasing development of aggressive-oppositional behavior (OR 1.88) at five years 9th grade: Significant differences for Conduct problems: d=0.2 and Emotional problems: d=0.25 Normative level of conduct problems: OR 2.15 emotional symptoms: OR=2.12 ***Program integrity*** Implementation quality M = 4.61/6 according to REDI trainers
Humphrey 2016 [120] UK	***Aim*** Effectiveness ***Study design*** Cluster RCT ***Prevention level*** Universal ***Setting*** 45 state-maintained schools in	***Program deliverer*** Teachers who had received initial training and on-going support from trained coaches. ***Program extent*** Nb sessions 40–80 Time/session 30–40 mins Duration 2 years ***Participants***	***Control condition*** Curriculum as usual ***Participants*** K=22 schools n=2176 (47.1% girls) Age: 7–9 years Ethnicity: 31.5% minorities Free school meals: 30% Other characteristics: Special education needs: 20%	***Outcome*** Emotional symptoms Conduct problems ***Measures*** Teachers SDQ, ***Results*** Two year after baseline: no significant differences for the whole sample

Author **Year** **Reference** **Country**	**Aim** **Study design** **Setting** **Population**	**Intervention** **Intervention group** **Dropout rate**	**Control** **Control group** **Dropout rate**	**Outcome** **Measures** **Results** **Program integrity** **Attention rate**
	the Greater Manchester region in the UK. ***Population*** 4516 children aged 7–9 years ***Length of follow-up*** 24 months	K=23 schools n=2423 (50.4% girls) Age: 7–9 years Ethnicity: 27% minorities Free school meals: 68% Special education needs: 18% ***Dropout rate at follow-up*** 350 (14.4%)	***Dropout rate at follow-up*** 5 schools (22.7%) 831 (40%) students	High-risk subsample: significant reduction in emotional symptoms favoring PATHS (d= –0.23). Significant reduction in conduct problems favoring control group (d=0.26). ***Attendance rate*** 20 of the 40 lessons per year were given each year. ***Program integrity*** High mean scores rated by observers
Crean 2013 [121] USA	***Aim*** Efficacy of PATHS ***Study design*** Cluster RCT ***Prevention level*** Universal ***Setting*** 14 schools in three school districts in New York State. ***Population*** 3rd grade students (n=779) ***Length of follow-up*** 1-, 2- and 3-years' post baseline	***Program deliverer*** Teachers after two days training and support from project staff, which were supervised by educational consultants ***Program extent*** Nb sessions: 131 sessions; two-three times weekly Time/session: 20–30 min Duration: 3 years ***Participants*** n=408 in 7 schools Gender: 57% girls (whole sample) Ethnicity: 49% minorities (whole sample) Annual income <20 000 $: 39%	***Control condition*** Curriculum as usual ***Participants*** n=335 in 7 schools ***Dropout rate at follow up*** 25%	***Outcome*** Aggression Conduct problem Acting out behavior Delinquent behavior ***Measures*** Teacher rated TRS, TCSR Acting out subscale, BASC-2 Aggression and Conduct Problems subscales Child report. adapted version of different scales ***Results (follow up)*** Reduction in conduct problems over time rated

Author **Year** **Reference** **Country**	**Aim** **Study design** **Setting** **Population**	**Intervention** **Intervention group** **Dropout rate**	**Control** **Control group** **Dropout rate**	**Outcome** **Measures** **Results** **Program integrity** **Attention rate**
		(whole sample) Family education: 11% no high school; 38% some college (whole sample) ***Dropout rate at follow up*** 25%		by teachers. At 3 years post baseline ES= –0.15. Other effects ns ***Program integrity*** Six of the seven schools did well, rated by the consultants
Berry 2016 [122] UK	***Aim*** Effectiveness and cost-effectiveness of PATHS ***Study design*** Cluster RCT ***Prevention level*** Universal ***Setting*** 56 mainstream primary schools in Birmingham ***Population*** Children in Reception and 1st grade ***Length of follow-up*** 24 months after baseline (posttest)	***Program deliverer*** Teachers after one day training by accredited trainers from the USA and support from a coach consultant (teacher) ***Program extent*** Nb sessions: 91 Time/session: 1 hour/week Duration: 2 years ***Participants*** 29 schools n=2651 (51% girls) Mean age: 5.06 SD 0.57 Ethnicity: 68.6% minorities SES: Special Education Needs: 22.1% ***Dropout rate at follow up*** 2 schools 12 months: 0.5% 24 months: 0	***Control condition*** Waiting list, usual practice: SEAL – Social and Emotional Aspects of Learning were used in 90% of the schools. ***Deliverer*** Teachers ***Participants*** 27 schools n=2423 (48% girls) Mean age: 5.08 SD 0.59 Ethnicity: 67.5% minorities Special education needs: 26.6% ***Dropout rate at follow up*** 1 school at 12 months and one more at 24 months 2.5% at 12 months 3.3% at 24 months	***Outcome*** Behavioral and emotional difficulties ***Measures*** Teacher rated SDQ Blinded observations ***Results*** 24 months: no significant differences ***Program integrity*** 50% delivered the program with high program integrity according to coaches
Novak 2017 [123]	***Aim*** Effectiveness	***Program deliverer*** Classroom teachers	***Control condition*** No intervention	***Outcome*** Oppositional behavior Physical aggression

Author **Year** **Reference** **Country**	**Aim** **Study design** **Setting** **Population**	**Intervention** **Intervention group** **Dropout rate**	**Control** **Control group** **Dropout rate**	**Outcome** **Measures** **Results** **Program integrity** **Attention rate**
Croatia	***Study design*** Cluster RCT ***Prevention level*** Universal ***Setting*** 30 schools in Zagreb, Rijeka and Istria, Croatia ***Population*** Children in 1st grade ***Inclusion and exclusion criteria*** 10 children from each classroom were randomly selected for assessment ***Length of follow-up*** Not clearly stated, around six months	***Program extent*** Intensity: two sessions per week Number of sessions: 63 Time/session: NR ***Participants*** n=280 Mean age: around 7 years ***Dropout rate at follow up*** 4% for the total sample	***Participants*** n=288 Mean age: around 7 years	Withdrawn/depressed behavior ***Measures*** TOCA-R authorithy acceptance ***Results*** No significant differences between groups, whole sample. Significant differences on almost all outcomes for the low-risk group but no differences for the high-risk group.
Malti 2011 [88] Malti 2012 [91] Averdijk 2016 [90] Switzerland	***Aim*** Effectiveness for PATHS with or without Triple-P, culturally adapted to the Swiss school system ***Study design*** Cluster RCT, block randomization ***Prevention level*** Universal ***Setting*** Public elementary schools in	***Program deliverer*** Teachers, trained for 2 days by coaches trained by a Dutch expert ***Program extent*** Nb sessions: 46 Time/session: 67 Min/week i.e. 2.4 sessions/weekly Duration 1 year ***Participants*** K=14 schools n=360 Gender: 48% girls (whole	***Control condition*** Curriculum as usual ***Participants*** K=14 schools n=356 ***Dropout rate at follow-up*** 3.5 years: 16% 6 years: 15% 8 years: 18%	***Outcome*** Delinquency Aggressive behavior Non-aggressive conduct disorder ***Measures*** SBQ rated by self, parents and teachers Self-reported delinquency ***Results*** Aggressive behavior: difference in change from baseline to 3.5 years: rated

Author **Year** **Reference** **Country**	**Aim** **Study design** **Setting** **Population**	**Intervention** **Intervention group** **Dropout rate**	**Control** **Control group** **Dropout rate**	**Outcome** **Measures** **Results** **Program integrity** **Attention rate**
	Zurich ***Population*** Children entering 1st year of elementary school ***Length of follow-up (months)*** 3.5, 6 and 8 years post baseline (age 11, 13 and 15)	sample) Mean age: 7.45 years (SD 0,39) (whole sample) Ethnicity: 45% had both parents of non-Swiss nationality (whole sample) Parents' education: 25% no secondary education; 16% university degree (whole sample) ***Dropout rate at follow-up*** 3.5 years: 14% 6 years: 13% 8 years:14%		by parents, d=0.26 and teachers, d=0.42; ns for self-report. No sign differences at later FU Police contacts: 6 years: Lower level in PATHS d= –0.16 8 years: no sign difference ***Program integrity*** 74 to 81% of lessons were rated as high quality by the coaches
Conduct Problems Prevention Research Group, CPPRG 2010 [124] USA	***Aim*** Effect of PATHS as part of the FastTrack model ***Study design*** Cluster RCT, matched pairs ***Prevention level*** Selected ***Setting*** 54 elementary schools in rural PA, Seattle and Nashville ***Population*** Children in 1st grade (n=9594) ***Inclusion criteria*** Students who remained in the same school building from the beginning of 1st grade 1 to the	***Program deliverer*** Teachers ***Program extent*** Nb sessions: 103 Time/session: NR Duration: 3 years ***Participants (whole sample)*** Nb: NR Gender: NR Mean age: Ethnicity: mean 36% (whole sample) Free lunch: mean 57% Below poverty cutoff: >90% ***Dropout rate at follow-up*** NR	***Control condition*** Curriculum as usual ***Participants*** See Intervention group ***Dropout rate at follow-up*** NR	***Outcome*** Disruptive behavior ***Measures*** TOCA-R Authority acceptance subscale by teachers Peer nominations for aggression ***Results*** Authority acceptance: d=0.24 (p<0.001) Peer nomination: d=0.20 for boys (p<0.001) Stronger effects in less disadvantaged schools. Larger effect for students with higher levels of aggression at baseline.

Author **Year** **Reference** **Country**	**Aim** **Study design** **Setting** **Population**	**Intervention** **Intervention group** **Dropout rate**	**Control** **Control group** **Dropout rate**	**Outcome** **Measures** **Results** **Program integrity** **Attention rate**
	end of 3rd grade, n=2513 ***Length of follow-up*** End of three years intervention			***Program integrity*** 3 out of 4 for modeling of PATHS and 3.2 for quality of teaching concepts according to observers
Kam 2004 [125] USA	***Aim*** Examine long-term effectiveness of PATHS in school-aged children of special needs. ***Study design*** Cluster RCT (randomized on class level) ***Prevention level*** Selective ***Setting*** 7 elementary schools in Seattle, grade 1 to 3. ***Population*** Students with disabilities in mixed-age classrooms ***Inclusion and exclusion criteria*** Not reported ***Length of follow-up (months)*** Posttest, 1, 2 and 3 years postintervention	***Program*** PATHS ***Program deliverer*** Teachers trained in PATHS for 3 days ***Program extent*** Intensity: 3 times per week Time/session: 20–30 min Duration: 6 months (October–April) ***Participants (all randomized participants in intervention and control group)*** K=18 classrooms n=133 (27% girls) Mean age: 8 years and 8 months Ethnicity: 66% White, 20.3% African American, 13.5% other ethnic origin Handicap: 39.8% learning disabilities, 17.3% mild mental retardation, 23.3% emotional and behavioral disorders, 15.8% physical disabilities/health impairments, 3.8% multiple handicaps	***Control condition*** No intervention	***Outcome*** Depression, Internalizing and Externalizing behavior ***Measures*** CDI, CBCL-TRF ***Results*** Significant difference between groups in favor of intervention in rate of change from baseline to 3 years follow up for teacher rated externalizing (d=0.18) and internalizing behavior (d=0.22) and for child rated depression (d=0.49) ***Attendance rate*** Not reported ***Program integrity*** Project staff observed and consulted with the teachers weekly. Teachers and counselors with previous experience in working with special needs populations also consulted

Author **Year** **Reference** **Country**	**Aim** **Study design** **Setting** **Population**	**Intervention** **Intervention group** **Dropout rate**	**Control** **Control group** **Dropout rate**	**Outcome** **Measures** **Results** **Program integrity** **Attention rate**
		Dropout rate at follow-up (both intervention and control group) 15–46% for CBCL-TRF and 28%-no change for CDI during follow-up years		with the teachers. Teacher consultants weekly filled out a form with 7 items rated 1 to 5, where 5 meant that the teacher does very well. Most teachers were rated 3 or above meaning that they were doing an adequate or better job in using the curriculum.
Morris 2014 [126] USA	***Aim*** On a large scale evaluate the effect of 3 classroom-based approaches to enhance children's social-emotional development (PATHS, Incredible Years, Tools of the Mind-Play). ***Study design*** Cluster RCT (randomized on Head Start center) ***Prevention level*** Selective ***Setting*** Head Start centers belonging to 17 Head Start grantees spread over USA ***Population*** 4-year-old low-income children in Head Start centers	***Program*** Preschool PATHS ***Program deliverer*** Teachers that received 4 days of training ***Program extent*** Intensity: NR Time/session: NR Duration: 1 year (fall to spring of preschool year) ***Participants*** K=26 Head Start centers n=544 (50.2% girls) Mean age: 4.4 years Ethnicity: 82% minorities Needing food stamps: 58% ***Dropout rate at follow-up (whole population)*** >90% for teacher reported and >85% for parent reported	***Control condition*** C1: No intervention C2: Incredible Years teacher training program C3: Tools of the Mind-Play ***Program deliverer*** C1: n.a. C2: Teachers that received 6 days of training C3: Teachers that received 5 days of training ***Program extent*** C1: n.a. C2 and C3: Intensity: NR Time/session: NR Duration: 1 year (fall to spring of preschool year) ***Participants*** C1 K=26 Head Start centers	***Outcome*** Behavior regulation (externalizing, internalizing and hyperactivity) ***Measures*** BPI ***Results*** No significant difference in teacher and parent rated behavior problems compared to no intervention for PATHS, Incredible Years or Tools of the Mind. ***Attendance rate*** Not reported ***Program integrity*** Weekly coaching and observation in the

Author Year Reference Country	Aim Study design Setting Population	Intervention Intervention group Dropout rate	Control Control group Dropout rate	Outcome Measures Results Program integrity Attention rate
	Exclusion criteria Head Start grantees: only served migrant children, only ran Early Head Start programs, were located in Alaska or Hawaii or 100 miles from "primary airport", only operated fewer than four centers or had been in operation for less than 2 years. Children: English or Spanish was not their primary language and if they were foster children. ***Length of follow-up*** 1 year		n=512 (49% girls) Mean age: 4.4 years Ethnicity: 84% minorities Receives food stamps: 56% <u>C2</u> K=26 Head Start centers n=541 (48.1% girls) Mean age: 4.4 years Ethnicity: 82% minorities Receives food stamps: 56% <u>C3</u> K=26 Head Start centers n=517 (48.1% girls) Mean age: 4.4 years Ethnicity: 81% minorities Receives food stamps: 55%	classroom. Average classroom score of 3.47 on a scale 1 (low) to 5 (high) over the year. 3 was considered satisfactory. Incredible Years (3.69) and PATHS (3.73) scored higher than Tools of the mind (2.97).

BPI = Behavior Problems Index; **CBCL** = Child Behavior Check List; **CBCL-TRF** = Child Behavior Check List-Teacher's Report Form; **SDQ** = Strengths and Difficulties Questionnaire

Skol-KOMET

Blues program

Table Blues program.

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome Measures Results Attendance rate
Stice 2008 [127] Stice 2010 [128] USA	***Aim*** Efficacy ***Study design*** Individual RCT (block randomization) ***Prevention level*** Indicated ***Setting*** Six (high) schools in the US (Austin) ***Population*** High school students experiencing sadness ***Inclusion and exclusion criteria*** ≥20 on CESD Exclusion: Students who met diagnostic criteria for current major depression upon interview ***Length of follow-up*** 6 months, 1 year, 2 years	I1: CBT group (I2: supportive-expressive group I3: bibliotherapy) ***Program deliverer*** Both I1 and I2: facilitated by a clinical psychology graduate student and co-facilitated by an undergraduate psychology student ***Program extent*** Both I1 and I2 Nb sessions: 6 Time/session: 1 hour Duration (weeks): 6 I3: copies of Feeling Good (Burns, 1980), which provides relevant and practical CB techniques for preventing and reducing negative moods ***Participants*** I1: CBT group (n=89), I2: supportive-expressive group (n=88) I3: bibliotherapy (n=80) Sample characteristics (full sample)	***Control condition*** Educational brochure ***Description*** NIMH brochure that describes major depression and recommends treatment for depressed youth (“Let’s Talk About Depression” Pub. 01–4162), as well as information about local treatment options. ***Participants*** n=84 ***Dropout rate at follow-up*** 14%	***Outcome*** Depressive symptoms and diagnosis ***Measures*** K-SADS BDI ***Results at follow-up*** I1 significantly greater reductions in depressive symptoms vs C at 1 year(d=0.30) and vs I3 by 1 and 2 year, (d=0.38 and 0.45), but not vs I2 Risk for onset of major or minor depression over the 2-year follow-up was significantly lower for I1 (14%; OR=2.2) compared to C (23%). ***Attendance rate*** I1: 75–90% attended each session I2: 80–89% attended each session I3: NR ***Program integrity***

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
		Total n=341 (56% girls) Mean age: 15.6 years old Ethnicity: 54% minorities Educational attainment of parents: 26% high school graduate or less 28% had had treatment for emotional/behavioral problems during the preceding year ***Dropout rate at 2 year*** I1: 21% I2: 26% I3: 27%		NR
Stice 2007 [129] USA	***Aim*** Effectiveness ***Study design*** Individual RCT (block randomization) ***Prevention level*** Indicated ***Setting*** Two high schools and one college in the US ***Population*** Students between the ages of 15 and 22 experiencing sadness ***Inclusion and exclusion criteria*** ≥20 on CESD Exclusion: Participants with evidence of clinically significant	I1: CBT group I2: supportive-expressive group I3: bibliotherapy I4: expressive writing I5: journaling ***Program deliverer*** Both I1 and I2: facilitated by a clinical graduate student and co-facilitated by an undergraduate ***Program extent*** Both I1 and I2 Nb sessions: 4 Time/session: 1 hour Duration (weeks): 4 I3: Feeling Good, self-help book I4: participants were informed about the relation about emotional writing and mood improvement. They were asked	***Control condition*** Waitlist control ***Description*** Participants in the control condition were told that it was necessary to observe the changes in mood among individuals who did not receive any intervention. They were offered I1 at the end of the study. ***Participants*** 67 ***Dropout rate at follow-up*** 15%	***Outcome*** Depressive symptoms and onset of severe depression (BDI>30) ***Measures*** BDI (21 items) ***Results at follow-up*** There were no significant differences between I1 and any of the other groups ***Attendance rate*** Full attendance (In the event that a participant missed a session, a brief individual session was scheduled) ***Program integrity*** Not measured

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
	depression, BDI ≥30 ***Length of follow-up*** 6 months	to write about their deepest thoughts and feelings about an important emotional issue for 45 minutes three times over the next three weeks I5: similar to I4 but participants were encouraged to write whatever they wished at least once per week. ***Participants*** I1: CBT group (n=50) I2: supportive-expressive group (n=19) I3: bibliotherapy (n=28) I4: expressive writing (n=27) I5: journaling (n=34) Sample characteristics Total n=225 (70% girls) Mean age: 18.4 years old Ethnicity: 45% minorities Educational attainment of parents: 20% high school graduate or less ***Dropout rate at follow-up*** I1: 24%, I2: 5%, I3: 14%, I4: none, I5: 18%		
Rohde 2014 [130] USA	***Aim*** Pilot trial in college ***Study design*** Individual RCT	I1: CBT groups I2: Bibliotherapy ***Program deliverer*** Masters-level graduate students in clinical psychology	***Control condition*** Brochure control ***Description*** NIMH educational brochure describing MDD symptoms and	***Outcome*** Depressive symptoms and diagnosis ***Measures*** K-SADS

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
	Prevention level Indicated ***Setting*** One large state university in the US ***Population*** First/second year college students ***Inclusion and exclusion criteria*** Students with elevated self-assessed depressive symptoms were included Exclusion: a current diagnosis of MDD or acute suicidal ideation ***Length of follow-up*** 6 months and 1 year	 ***Program extent*** I1 Nb sessions: 6 Time/session: 1 hour Duration (weeks): 6 I2: Feeling Good (Burns, 1980) self-help book ***Participants*** I1: n=27 I2: n=22 Sample characteristics for full sample n=82 (69.5% girls) Mean age: 19 years old Ethnicity: 19% minorities ***Dropout rate at 1 year follow-up*** I1: 11% I2: 20%	treatment ("Let's Talk About Depression" NIH Pub. 01-4162), as well as referral information. ***Participants*** n=33 ***Dropout rate at 1 year follow-up*** 12%	 ***Results at follow-up*** <u>Depressive symptoms</u> No significant effects for I1 compared to I2 or C. <u>Diagnosis of depression</u> No significant effects ***Attendance rate*** I1: 3.9/6 sessions; 70% attended 4–6 sessions I2: 43% indicated they read at least half the book ***Program integrity*** Good; mean adherence was 7.9 (SD=1.0)
Rohde 2015 [131] USA	***Aim*** Effectiveness ***Study design*** Individual RCT (block randomization) ***Prevention level*** Indicated ***Setting*** Five high schools in the US	I1: CBT groups I2: Bibliotherapy ***Program deliverer*** School counselors, nurses, and teachers ***Program extent*** I 1: Nb sessions: 6 Time/session: 1 hour Duration (weeks): 6	***Control condition*** C2: brochure control ***Description*** An NIMH educational brochure describing MDD symptoms and treatment ("Let's Talk About Depression" NIH Pub. 01-4162), as well as referral information ***Participants***	***Outcome*** Depressive symptoms and diagnosis ***Measures*** Sixteen questions from K-SADS ***Results at 2 years follow up*** <u>Onset MDD</u> I1 showed significantly

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
	Population High school students ***Inclusion and exclusion criteria*** Students with elevated self-assessed depressive symptoms were included Exclusion: a current diagnosis of MDD or acute suicidal ideation ***Length of follow-up*** Every 6 months up to 24 months	I2: Feeling Good (Burns, 1980) self-help book ***Participants*** I1: n=126 I2: n=128 Sample characteristics given for full sample only n=378 (68% girls) Mean age: 15.5 years old Ethnicity: 28% minorities Maximal parental educational: 39% high school graduate or less ***Dropout rate at 2 years follow-up*** I1: 14% I2: 7%	n=124 ***Dropout rate at follow-up*** 10%	lower onset versus I2 (10% vs. 25%, respectively; HR=2.48), but the difference relative to C (17%) was nonsignificant <u>Depressive symptoms</u> No significant effects ***Attendance rate*** I1: Mean attendance = 5.3 sessions (SD=0.9; 48% attended all 6 sessions I2: 26% indicated they read at least half the book ***Program integrity*** Mean adherence = 7.0 (SD=0.7) and competence = 7.1 (SD=0.7) (of max 10 points)
Briére 2019 [132] Canada	***Aim*** Effectiveness ***Study design*** Individual RCT (block randomization) ***Prevention level*** Indicated ***Setting*** Three public secondary schools located in disadvantaged areas of Montreal, Canada	***Program deliverer*** 5 psychoeducators, with MSc and training in behavioral, psychological and systemic intervention, and one psychologist. ***Program extent*** Nb sessions: 6 Time/session: 1 hour Duration (weeks): 6 ***Participants*** n=37	***Control condition*** Educational brochure control ***Description*** From a not-for-profit mental health organization. The brochure described the nature of depression and the types of services that are available for youth. ***Participants*** n=37 ***Dropout rate at follow-up*** 8%	***Outcome*** Depressive symptoms and diagnosis, symptoms of anxiety ***Measures*** SCID-IV CES-D 12 items from SCAS ***Results at follow up*** <u>Depressive or anxious symptoms</u> NS differences

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome Measures Results Attendance rate
	Population Secondary school students ***Inclusion and exclusion criteria*** ≥20 on CESD Exclusion: Students with current major depression disorder ***Length of follow-up*** 6 months	Sample characteristics, full sample (n=74) 66% girls Mean age: 15.5 years old Ethnicity: 69% Canadian Maternal and paternal education: 61% secondary school or higher ***Dropout rate at follow-up*** 3%		Development of MDD I: less likely to develop MDD, (OR=6.0) ***Attendance rate*** Two participants (5%) dropped out of the program. Mean attendance: 85% ***Program integrity*** Very good

CES-D = Center for Epidemiologic Studies Depression Scale; **K-SADS** = Schedule for Affective Disorders and Schizophrenia for School-Age Children; **SCAS** = Spence Children's Anxiety Scale; **SCID-IV** = Structured Clinical Interview for DSM-IV

Coping with Stress

Table Cognitive Behavior Prevention Programs (CBP) mainly based on Coping with Stress.

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome Measures Results Attendance rate
Arnarson 2009 [133] Arnarson 2011 [134] Iceland	***Aim*** Efficacy ***Study design*** RCT, individual ***Prevention level*** Indicated ***Setting*** Interested schools around Iceland	***Program*** Feelings and Thoughts ***Program deliverer*** School psychologists with intensive training and supervision ***Program extent*** 14 sessions, twice per week for the first three weeks and then once per week for 8 weeks	***Control condition*** Assessment only (CAU) ***Participants*** n=81 (55.6% F) ***Dropout rate at follow-up*** 6 months: 25/81	***Outcome*** Onset depression or dysthymia ***Measures*** CAS ***Results*** Effects were significant and maintained at 12 months: HR=0.182

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
	Population 1920 9th grade students (14–15 years) ***Inclusion criteria*** Between 75 and 90th percentile on CDI or ≥75th percentile on the negative composite of CASQ ***Length of follow-up*** 6 and 12 months	Group size: 6–8 ***Participants*** n=90 (49% F) ***Dropout rate at follow-up*** 6 months: 32/90		***Attendance rate*** NR ***Program integrity*** Not measured
Clarke 1995 [135] USA	***Aim*** Efficacy ***Study design*** RCT, individual level ***Prevention level*** Indicated ***Setting*** Three suburban schools ***Population*** n=1652 adolescents in grade 9 and 10; predominantly white lower-middle class students ***Inclusion criteria*** CES-D ≥24 ***Exclusion criteria*** Current affective disorder according to DSM-III	***Program*** CWS ***Program deliverer*** School psychologists and counsellors with 40 h training ***Program extent*** Three 45 min sessions/week for five weeks ***Participants*** n=76 CES-D at baseline: mean 24.29 (9.6) Total sample: 70% female, mean age 15.3 years, 92% white ***Dropout rate at follow-up*** 27.6% at 12 months (remaining subjects reported higher scores than those who were lost)	***Control condition*** CAU ***Participants*** n=74 CES-D at baseline: mean 21.88 (9.2) ***Dropout rate at follow-up*** 5.4% at 12 months	***Outcome*** Onset of MDD or dysthymia, symptoms of depression ***Measures*** K-SADS-E and LIFE, CES-D ***Results*** Based on 125 completers Cumulative incidence of MDD or dysthymia at 12 months: CWS: 14.5% CAU: 25.7% $p<0.05$ Symptoms: CWS>CAU at postintervention but no differences at FU (CAU improved by time)

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
	Length of follow-up 6 months and 12 months			***Attendance rate*** Average 72% (SD 22%) ***Program integrity*** 93.9% compliance with the manual (range 77 to 100)
Clarke 2001 [136] USA	***Aim*** Efficacy ***Study design*** RCT, individual level ***Prevention level*** Indicated ***Setting*** HMO organization in Oregon ***Population*** Adolescents in 2995 families where parents were identified to have depression via the HMO database Predominantly white, employed parents ***Inclusion criteria*** Age: 13–18 years CES-D>24 ***Length of follow-up*** 12 and 24 months	***Program*** CWS with parent component ***Program deliverer*** Therapist with a master's degree, trained in the approach ***Program extent*** Adolescents: 15 group sessions, 1 hour each Parents: 3 information meetings in the beginning, middle and end of CWS. ***Participants*** n=45 (53% F) Age: mean 14.4 years (1.4) CES-D at baseline: mean 25.2 (8.7) ***Dropout rate at follow-up*** 17% for the total sample, no systematic bias in drop out	***Control condition*** CAU ***Participants*** n=49 (65% F) Age: mean 14.7 (1.5) CES-D at baseline: mean 23.8 (10.3) ***Dropout rate at follow-up*** 17% for the total sample	***Outcome*** Symptoms, onset MDD ***Measures*** CES-D, HAM-D, CBCL-D, K-SADS-E ***Results*** CES-D: Significant improvement up to 12 months; no difference at 24 months Onset MDD: HR: 5.64 (1.56 to 20.39) at 12 months (p=0.002), diminishing to HR 2.16 (0.92 to 5.04) at 24 months (ns) ***Attendance rate*** Average 9.5 sessions and 46% of the homework assignments ***Program integrity*** Mean compliance 95.9% (audiotaping and rating of 2–3 sessions)
Garber 2009	***Aim*** Prevention of depressive	***Program*** CBP (Cognitive Behavior	***Control condition*** TAU	***Outcome*** Onset depressive disorder,

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
[137]] Beardslee 2013 [138] Brent 2015 [139] USA	disorders ***Study design*** Individual level ***Prevention level*** Indicated ***Setting*** Four research clinics in major cities in Boston, Nashville, Portland and Pittsburgh ***Population*** n=2494 families recruited from several sources or by advertisements ***Inclusion criteria*** Age: 13–17 years At least one caretaker with a history of depressive disorders during recent years ≥20 on CES-D (current subsyndromal depression) or a prior history of a depressive disorder (80% had a prior history) ***Exclusion criteria*** Bipolar disorder or schizophrenia in the youth or the parent ***Length of follow-up*** Posttest and up to 6 years after	Prevention), modified from Clarke 1995, with an emphasis on cognitive restructuring and problem-solving and with booster sessions ***Program deliverer*** At least Master's level clinicians trained and supervised by experienced PhD clinicians ***Program extent*** Nb sessions: 8 Intensity: once a week Time/session: 90 min Booster: Nb sessions: 6, once a month Time/session: 90 min Group size: mean 6.6 (3–10) Two parental information meetings, week 1 and 8 ***Participants*** n=159 (58.5% F) Mean age: 14.8 (SD 1.5) Minority: 17.3% History of depressive episode: 81.7% CES-D ≥20: 18.2% Parent ≥ high school: 77.7% Parental current episode MDD: 47.5% ***Dropout rate at follow-up***	***Participants*** n=157 (58.6% F) Mean age: 14.8 years (SD 1.3) Minority: 19.4% History of depressive episode: 78.3% CES-D ≥20: 21.7% Parent ≥high school: 76.9% Parental current episode MDD: 43.4% ***Dropout rate at follow-up*** 16.6%	symptom level ***Measures*** LIFE (Longitudinal Interval Follow-up Evaluation), CES-D, CDRS-R ***Results*** Onset depression at 6 years: HR: 0.76 (0.58–0.996). Differences occurred during the first 9 months and were maintained. Symptom level from baseline to 6 years: CES-D: β= –1.6 (95% CI, –3.20 to 0.01); p=0.05 CDRS-R: β= –1.18 (95% CI, –2.79 to 0.01), ns Moderation: CBP> TAU only when parents were not depressed at baseline ***Attendance rate*** Mean 6.5 sessions (median 8.0) Mean 3.8 booster sessions (median 5.0) ***Program integrity*** Reported as high

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome Measures Results Attendance rate
	last session	13.2% at 2 years 12% for the whole sample at 6 years		

CBCL = Child Behavior Check List; **CES-D** = Center for Epidemiologic Studies Depression Scale; **CWS** = Coping with Stress; **K-SADS** = Schedule for Affective Disorders and Schizophrenia for School-Age Children

FRIENDS

Table FRIENDS.

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome Measures Results Attendance rate
Essau 2012 [140] Germany	***Aim*** Effectiveness ***Study design*** Cluster RCT ***Prevention level*** Universal ***Setting*** 14 schools in rural and urban areas in North Rhine-Westphalia, Germany ***Population*** Students aged 9–12 years ***Inclusion and exclusion criteria*** None ***Length of follow-up***	***Program deliverer*** Graduate students in clinical child psychology ***Program extent*** Nb sessions: 10 + 2 booster sessions and 4 group sessions for parents Time/session: 60 minutes Duration: 10 weeks + booster after 1 and 3 months ***Participants*** K=not reported n=302 (46.6% girls) Mean age: 10.7 years Ethnicity: Minorities 5% SES: not reported ***Dropout rate at follow-up:*** 6-month attrition not reported	***Control condition*** Informed that they would be contacted at regular intervals to learn about how they were doing in school, offered FRIENDS after 6-months ***Participants*** K=not reported n=336 (46.7% girls) Mean age: 11.8 years Ethnicity: minorities 3% SES: not reported ***Dropout rate at follow-up*** 6-month drop out not reported	***Outcome*** Anxiety, depression ***Measures*** SCAS RCADS ***Results at follow up*** Significant group differences were found for the total anxiety score at 12 months follow up and for total depression score at 6 and 12 months follow up. All results favored the intervention group. ***Attendance rate:*** According to authors, effectively, all children participated in all of the

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
	6 and 12 months			FRIENDS sessions. ***Program integrity*** 78–97%
Lowry Webster 2001 [141] Lowry Webster 2003 [142] Australia	***Aim*** Effectiveness ***Study design*** Cluster RCT ***Prevention level*** Universal ***Setting*** 7 Catholic schools in the Brisbane metro area ***Population*** Children aged between 10–13 in grades 5 to 7. ***Inclusion and exclusion criteria*** None ***Length of follow-up*** 12 months	***Program deliverer*** Trained teachers ***Program extent*** Nb sessions: 10 Time/session: 1 hour Duration: 10 weeks Booster: at 1 and 3 months Parent component: 3 parent sessions separate from student sessions. ***Participants*** K=not reported n=432 (54% girls) Mean age: not reported Ethnicity: not reported SES: not reported ***Dropout rate at follow-up*** 21%	***Control condition*** Wait list ***Participants*** K=not reported n=162 (49% girls) Mean age: not reported Ethnicity: not reported SES: not reported ***Dropout rate at follow-up*** 21%	***Outcome*** Anxiety and depression ***Measures*** SCAS RCMAS CDI ***Results at follow up*** No significant effects on SCAS, RCMAS or CDI. ***Attendance rate:*** Not collected ***Program integrity:*** Not collected
Stallard 2013 [143] Stallard 2014 [144] Skryabina 2016	***Aim*** Effectiveness ***Study design*** Cluster RCT ***Prevention level*** Universal ***Setting***	I1: School-led FRIENDS I2: Health -led FRIENDS ***Program deliverer*** I1: Trained member of the school I2: Health leader external to the school ***Program extent***	***Control condition*** Usual personal, social and health education (PSHE) lessons provided by school staff. ***Deliverer:*** School staff ***Description:*** Most participating schools were	***Outcome*** Anxiety and depression ***Measures*** RCADS ***Results at follow-up*** I1 vs I2: significant differences favoring I2 in self rated adjusted mean

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
[145] Skryabina 2016 [146] UK	Schools in southwest England ***Population*** Children aged 9–10 ***Inclusion and exclusion criteria*** No inclusion or exclusion criteria reported ***Length of follow-up*** 12 months	Nb sessions: 9 weekly Time/session: 60 minutes ***Participants I1:*** K=14 n=497 (50% girls) Mean age: NR Ethnicity: British white 96%, non-white 4% SES: Eligible for free meal 11% ***Participants I2*** K=14 n=509 (48% girls) Mean age: NR Ethnicity: British white 92% SES: Free meal eligibility 9% ***Dropout rate at follow-up*** I1:12% I2: 12%	following a UK National Curriculum programme designed to develop self-awareness, management of feelings, motivation, empathy and social skills. ***Participants*** K=12 schools/classes n=442 (57% girls) Mean age: NR Ethnicity: British white 91% SES: Eligible for free meal 10% ***Dropout rate at follow-up*** 16%	RCADS I2 vs C: significant differences favoring I2. No difference between I1 and C. Self rated RCADS subscale depression no difference between groups. No difference in parent rated RCADS. ***Attendance rate*** Attendance during FRIENDS sessions not taken but average absence rate across FRIENDS schools was determined to be low, 4.25% ***Program integrity*** All 9 FRIENDS sessions delivered in all classes.
Lock 2003 [147] Barrett 2006 [148] Australia	***Aim*** Efficacy ***Study design*** Cluster RCT ***Prevention level*** Universal ***Setting*** 7 schools in metropolitan Brisbane	***Program deliverer*** Clinical masters trained psychologists or doctoral candidates ***Program extent*** Nb sessions: 10 Time/session: 70 min Duration (weeks): 10 weeks ***Participants*** k=not reported	***Control condition:*** No intervention ***Participants*** K=not reported n=295 (6^{th} grade 9.7%; 9^{th} grade 2.6% girls) Mean age: Ethnicity: see intervention SES: see intervention ***Dropout rate at follow-up***	***Outcome*** Anxiety, depression ***Measures*** SCAS RCMAS CDI ***Results at follow up*** Significant differences in RCMAS and SCAS at posttest remained at 12-

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
	Population Grade 6 and 9 students ***Inclusion and exclusion criteria*** None listed ***Length of follow-up*** 12 month, 24 and 36 months	n=442 (6th grade 10.8% girls; 9th grade 11.97%) Mean age: NR Ethnicity: Majority of students born in Australia 84–89%, typical of the Australian population SES: Middle SES on average, typical for SES distribution of Australia ***Dropout rate at follow-up*** 25% at 24 months and 41% at 36 months	44% at 24-months and 54% at 36 months follow-up	and 36-months follow-up, favoring the intervention group. Differences in CDI at 12 months did not remain at 36 months ***Attendance rate:*** Not reported ***Program integrity:*** Not reported
Åhlen 2018 [149] Sweden	***Aim*** Effectiveness ***Study design*** Cluster RCT ***Prevention level*** Universal ***Setting*** 17 schools in Stockholm in Sweden ***Population*** School children in 3rd and 4th grade (8–11 years old) ***Inclusion and exclusion criteria*** Schools with 3rd and 4th grades, but not very small schools ***Length of follow-up***	***Program*** FRIENDS for Life ***Program deliverer*** Teachers, trained for 1 day by licensed instructor, supervision meetings during intervention ***Program extent*** Nb sessions: 10 Time/session: 60 min Duration (weeks): 10 ***Participants (nb randomized)***[2, 3] K=8 schools n=353 (46% girls) Mean age: 9.7 years Ethnicity: 75.2% had parent´s born in Sweden Parent´s eduction: 68% post-secondary school Median household income:	***Control condition*** Waitlist ***Participants*** K=9 schools n=342 (51% girls) Mean age: 9.4 years Ethnicity: 78% had parent´s born in Sweden Parent´s eduction: 70% post-secondary school Median household income: US$6000–6500/month ***Dropout rate at follow-up*** Children: 18.4% at 12 months Parents: 37.7% at 12 months Teachers: 26.6% at 12 months	***Outcome*** Anxiety, depression, internalizing and externalizing problems ***Measures*** SCAS CDI-S SDQ (total and emotional) MINI-KID ***Results*** No significant differences between groups for child, parent and teacher rated measures posttest and until 12 months follow up. No significant difference between groups in diagnostic interview (MINI-KID) in high-

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome Measures Results Attendance rate
	12 months	US$6500–7000/month ***Dropout rate at follow-up*** Children: 16.7% at 12 months Parents: 44.2% at 12 months Teachers: 15.6% at 12 months		anxiety subgroup. ***Attendance rate*** School class median of non-attendance: 4.2–6.1% ***Program integrity*** 17 teachers conducted 10 sessions, 2 teachers 8 sessions and 1 teacher 6 sessions of the program. Adherence followed by supervision meetings with teachers, regular e-mails and visits by first author during intervention. Teachers were offered to record all sessions. 17/20 teachers attended at least on supervision meeting. 3/20 teachers recorded sessions satisfactorily.
Kozina 2021 [150] Slovenia	***Aim*** Examine the possibility of using the anxiety reduction program FRIENDS for Life to reduce the aggression of the pupils at the same time ***Study design*** Cluster RCT (on class level) ***Prevention level***	***Program*** FRIENDS for Life ***Program deliverer*** One researcher who is a psychologist ***Program extent*** Nb sessions: 10 sessions + 2 booster sessions + 2 parent meetings	***Control condition*** No intervention ***Participants*** K=2 classes n=41 (41.5% girls) Mean age: 9–10 years ***Dropout rate at follow-up*** 0% at all time points	***Outcome*** Anxiety, aggression ***Measures*** AN-UD anxiety scale AN-UD aggression scale ***Results*** No significant difference between groups in self-reported anxiety and

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome Measures Results Attendance rate
	Universal ***Setting*** 2 schools in Slovenia ***Population*** 4th grade students (9–10 years old) ***Inclusion and exclusion criteria*** Schools with two classes of 4th grades ***Length of follow-up (months)*** Posttest, 6, 12 and 18 months postintervention	Time/session: 45 min Duration (weeks): 10 weeks with sessions + 2 months with booster sessions ***Participants (nb randomized)***[2, 3] K=2 classes n=44 (54.5% girls) Mean age: 9–10 years ***Dropout rate at follow-up*** 4.5% at 12 and 18 months		aggression ***Attendance rate*** NR ***Program integrity*** NR

CDI-S = Children's Depression Inventory-Short Version; **MINI-KID** = Mini International Neuropsychiatric Interview for Children and Adolescents; **RCADS** = Revised Children's Anxiety and Depression Scale; **RCMAS** = Revised Children's Manifest Anxiety Scale; **SCAS** = Spence Children's Anxiety Scale; **SDQ** = Strengths and Difficulties Questionnaire

Penn Prevention Program, Aussie Optimism, Op Volle Kracht

Table Penn Prevention Program, Aussie Optimism, Op Volle Kracht.

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group Dropout rate at follow up	Control Control group Dropout rate at follow up	Outcome measures Results Program Integrity Attendance rate
Cardemil 2002 [151] Cardemil 2007 [152]	***Aim*** Investigate the efficacy of PRP with low-income minority children ***Study design*** RCT, student level, two cohorts:	***Program*** Penn Resilience Program, modified for low-income children ***Facilitator*** The first author for African	***Control condition*** Normal curriculum ***Participants*** n=93 (50% girls) Ethnicity: 30% Latino and 70% African American	***Outcome*** Depression ***Measures*** CDI ***Results***

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group** **Dropout rate at follow up**	**Control** **Control group** **Dropout rate at follow up**	**Outcome measures** **Results** **Program Integrity** **Attendance rate**
USA	African American children and Latino children ***Prevention level*** Selective ***Setting*** Two middle schools in low-income urban parts of Philadelphia ***Population*** Students in grades 5–8 Mean age: 11, 12 years ***Length of follow-up*** 6, 12 and 24 months	American children; four graduate students (Master level), trained by the first author for the Latino children; at least 20 hours training ***Program extent*** Intensity: once weekly Time/session: 90 minutes Duration: 12 weeks ***Participants*** n=75 Ethnicity: 1/3 Latino and 2/3 African American 50% girls ***Dropout rate at follow-up*** 6 months: 12% (L); 13% (AM) 24 months: 17%	***Dropout rate at follow-up*** 6 months: 19% (L); 26% (AM) 24 months: 42%	Latino group: CDI decreased in the PRP-group; significant difference vs control at posttest and follow ups. African-American group: Both groups improved and their scores remained similar at 24 months follow up ***Program integrity*** Not measured ***Attendance rate*** Marginal correlation between attendance rate and CDI up to 12 months follow up but not at 24 months
De Jonge-Heesen 2020 [153] The Netherlands	***Aim*** Effectiveness in regular school communities ***Study design*** RCT, individual ***Prevention level*** Indicated ***Setting*** 13 secondary schools ***Population*** n=5222 adolescents in 2nd year,	***Program*** OVK-2 ***Facilitator*** School psychologists together with a co-trainer from the collaborated mental health healthcare organizations ***Program extent*** Intensity: once weekly Time/session: 1 hour Duration: 8 weeks Group size: 3–8	***Control condition*** Psychoeducation (leaflet about depression) plus two e-mails about tips to boost their mood and decrease symptoms ***Participants*** n=64 ***Dropout rate at follow-up*** 11/64	***Outcome*** Depressive symptoms, clinical depression, suicidal ideation, anxiety symptoms ***Measures*** CDI-2, ADIS-C, STAI ***Results*** Self-rated depressive symptoms: significantly larger decrease from baseline to 12 months in OVK compared to C

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group Dropout rate at follow up	Control Control group Dropout rate at follow up	Outcome measures Results Program Integrity Attendance rate
	screened with CDI-2 by public health service as part of a routine health survey ***Inclusion criteria*** Age: 11–15 years CDI-2 ≥14 ***Length of follow-up*** Posttest, 6 and 12 months later	***Participants*** n=66 Total sample: 63% girls Mean age: 13.59 (0.68) 85% Dutch origin ***Dropout rate at follow-up*** 15/66		(ES=0.47) Parent rated depressive symptoms: no difference in decrease between groups. Suicidal ideation: ns Anxiety: OVK> C at 12 months Individual change over time: percentage of participants that improved in OVK was significantly higher than in C ***Program integrity*** 84.7% according to self-report ***Attendance rate*** NR
Gillham 2006 [154] USA	***Aim*** Effectiveness of PRP ***Study design*** RCT, individual level, stratified for gender and high vs low CDI ***Prevention level*** Indicated ***Setting*** Two clinics at an HMO in the Sacramento metropolitan area ***Population*** All children, 11–12 years, at the clinics, n=6000	***Program*** PRP ***Facilitator*** One of three child mental health clinicians with >20 years of experience conducting therapy. 3 days training + supervision by one of the PRP developers ***Program extent*** Intensity: once a week Time/session: 90 min Duration: 12 weeks ***Participants*** n=147	***Control condition*** TAU ***Participants*** n=124 ***Dropout rate at follow up*** 33%	***Outcome*** Depressive symptoms, depression and anxiety diagnoses ***Measures*** CDI, diagnoses captured from the HMO - database ***Results*** CDI: no significant decrease for the whole sample, but for girls, d=0.31 Diagnoses: not significant for the whole sample but for children with high-

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group** **Dropout rate at follow up**	**Control** **Control group** **Dropout rate at follow up**	**Outcome measures** **Results** **Program Integrity** **Attendance rate**
	n=864 participated in the first screen (14%) ***Sample*** 54% girls 86% in 6th and 7th grade 27% ethnic minority 33% of parents were college graduates Median annual income: 40–60 000$ ***Inclusion criteria*** CDI ≥7 (girls) CDI ≥9 (boys) ***Exclusion criteria*** MDD or dysthymia according to K-SADS-P. ***Length of follow-up*** Two years	***Dropout rate at follow up*** 35%		level CDI at entry (cut-off 13) ***Program integrity*** 64% to 95% (mean 83%) according to external rating ***Attendance rate*** Average: 50% 28% did not attend a session 30% attended ≥75% of sessions
Gillham 2007 [155] USA	***Aim*** Effectiveness of PRP ***Study design*** RCT, individual level, stratification for age, gender and baseline CDI ***Prevention level*** Universal ***Setting*** Three schools in a suburban metropolitan area	***Program*** Penn Resilience Program ***Facilitator*** Teachers, school counsellors and graduate students not affiliated with the research team. 30 hours training and biweekly group supervision ***Program extent*** Intensity: once a week Time/session: 90 minutes Duration: 12 weeks	***Control*** No intervention ***Participants*** n=234 (The study also used PEP, a program focused on stressors and designed to control for adult attention, group coherence and social support, as a control condition, n=231 and similar dropout rates)	***Outcome*** Depressive symptoms, clinical level of depression ***Measures*** CDI ***Results*** CDI: No significant differences between the groups at posttest or at any follow up time. CDI>13: PRP prevented

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group** **Dropout rate at follow up**	**Control** **Control group** **Dropout rate at follow up**	**Outcome measures** **Results** **Program Integrity** **Attendance rate**
	Population n=4000 students; 718 consented ***Sample*** Mean age: 12.13 years (1.03) Predominantly Caucasian (60–88%) Annual income <10 000 $: appr 15% (3–29%) College educated parent: appr 30% Mean CDI: 8.45 (7.35), students in one school reported lower levels at baseline ***Inclusion and exclusion criteria*** CDI<13 and not depressive as measured by DICA ***Follow-up*** Every 6 month up to 3 years	***Participants*** n=232 ***Dropout rate at follow up (whole sample, evenly distributed)*** 6 months: 6–7% 12, 18, 24, 30 months: NR 36 months: 56–59%		elevated symptoms relative to no intervention but not relative to PEP ***Program integrity*** 80% ***Attendance rate*** PRP: 6.71 lessons PEP: 7.11 lessons 15% did not attend any session
Gillham 2012 [156] USA	***Aim*** Effects of PRP in adolescents, with or without a parent component ***Study design*** RCT, individual level ***Prevention level*** Indicated ***Setting*** Five middle schools in a suburban metropolitan area in	***Program*** PRP, PRP -P which included parent lessons ***Facilitator*** Teachers and counsellors, trained for 30 hours and with regular supervision meetings with the research team ***Program extent (students)*** Intensity: once a week after school Time/session: 90 min	***Control condition*** No intervention ***Participants:*** n=129	***Outcome*** Depression symptoms, anxiety symptoms and clinical levels of symptoms ***Measures*** CDI (primary), RADS, RCMAS, NIMH DISC-IV to assess depression and/or generalized anxiety ***Results*** PRP significantly reduced

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group Dropout rate at follow up	Control Control group Dropout rate at follow up	Outcome measures Results Program Integrity Attendance rate
	the north-eastern US. ***Population*** n= about 8000 students 10–14 years n=1025 completed screening n=417 consented to the study ***Length of follow-up*** 6 months (3 years planned but no data)	Duration (weeks): 10–12 Booster lessons started after 5 months and were offered once every 6 months ***Program extent (parents)*** Intensity: once every two weeks in the evening Time/session: 90 min Duration: 6 or 7 lessons 3 booster lessons were offered, 1 month, 5 months and 17 months after end of the parent groups ***Participants (students)*** PRP only: n=137 PRP with family component: n=142 ***Characteristics (whole sample)*** Gender: 48% female Ethnicity: 77% European American, 12% African American (unbalanced between PRP and PRP-P) 60% of mothers were college graduated or higher level ***Dropout rate at follow up*** 14% at 6 months (whole sample, evenly distributed)		depression symptoms on the CDI but not the RADS posttest but effects were not maintained. No significant effect on anxiety. No significant effect on clinical levels of symptoms. No added benefit of the parent intervention ***Program integrity*** On average, 47% of the items were covered satisfactorily ***Attendance rate*** Students: average 5.80 (SD=3.64) 84% attended at least one session 44% attended the booster lessons Parents: on average 3.2 (SD=2.28) 77% of students had a parent that participated at least one session. Parents of 27% of students participated in the first booster session
Kindt 2014 [157] The Netherlands	***Aim*** Evaluate the effectiveness among adolescents in low-income areas	***Program*** Translated and adapted version of PRP, OVK, delivered during school hours	***Control condition*** Curriculum as usual ***Participants***	***Outcome*** Depressive symptoms ***Measures***

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group** **Dropout rate at follow up**	**Control** **Control group** **Dropout rate at follow up**	**Outcome measures** **Results** **Program Integrity** **Attendance rate**
	Study design RCT, cluster at class level (within schools) and stratified for level of education ***Prevention level*** Selective ***Setting*** Secondary schools in the Netherlands, 7th and 8th grades (11–16 years), 543 were invited and 12 agreed to participate ***Population*** n=1440 adolescents from 61 classes ***Inclusion and exclusion criteria*** For schools: At least 30% of the students lived in low-income areas ***Length of follow-up*** 6 and 12 months	***Facilitator*** The mentor teachers, trained for four days by the research team ***Program extent*** Intensity: once weekly Time/session Duration (weeks): 16 ***Participants*** n=667 (28 classes) Gender: 51% females Mean age: 13.42 years Native Dutch: 46.0% Low level of education: 46.8% ***Dropout rate at follow up*** 25% at 6 months 24% at 12 months	n=676 (29 classes) Mean age: 13.42 years Gender: 53% females Native Dutch: 49.4% Low level of education: 44.5% ***Dropout rate at follow up*** 30% at 6 months 27% at 6 months	CDI ***Results*** No significant effect on depressive symptoms Worsening of clinical depressive symptoms ***Program integrity*** 80.5% of the lessons were taught ***Attendance rate*** NA
Poppelaars 2016 [158] The Netherlands	***Aim*** Investigate the effects on depressive symptoms of two programs with different format ***Study design*** RCT with four arms: PRP, SPARX (computer game), PRP+SPARX and control, cluster at school level	***Program*** OVK (other interventions not described here) ***Facilitator*** Professional psychologists ***Program extent*** Intensity: once weekly during after class time	***Control condition*** No intervention ***Participants*** n=51 Mean age: 13.22 years (0.64) Born in the Netherlands: 98%	***Outcome*** Depressive symptoms Suicidal ideation ***Measures*** RADS-2 CDI item on suicidal ideation ***Results***

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group** **Dropout rate at follow up**	**Control** **Control group** **Dropout rate at follow up**	**Outcome measures** **Results** **Program Integrity** **Attendance rate**
	Prevention level Indicated ***Setting*** Grades 7 and 8 in 7 secondary schools in the Netherlands. ***Population*** n=962 females were screened during class-time ***Inclusion and exclusion criteria*** Scored or at above the 70th percentile on depressive symptoms with RADS-2. ***Length of follow-up*** Up to 12 months	Time/session: 1 hour Duration (weeks): the first 8 lessons of OVK ***Participants*** n=50 Mean age: 13.43 years (0.64) Born in the Netherlands: 94% ***Dropout rate at follow up*** Not clearly described, 76.4% of the whole sample filled out all follow up questionnaires (up to 12 months after intervention).		Depression symptoms decreased significantly in (all four) conditions, with no difference between conditions. No difference in suicidal ideation. ***Program integrity*** Not reported ***Attendance rate*** 6.77 lessons (SD=1.17)
Roberts 2003 [159] Roberts 2004 [160] Australia	***Aim*** Effectiveness of PPP ***Study design*** RCT, matched pairs (geographical location, school size, SES and distance from nearest regional town) ***Prevention level*** Indicated ***Setting*** 7th grade from 18 primary schools selected to be representative of rural Western Australia	***Program*** PPP conducted during school time. Minor changes in spelling only ***Facilitator*** School psychologists or nurses, a facilitator with 40 hours training by the program developer and a cofacilitator with 30 hours training by the researchers. One hour of phone supervision biweekly ***Program extent*** Intensity: once weekly	***Control condition*** Curriculum as usual plus the regular health curriculum ***Participants*** n=99 (48% girls) Mean age: 11.86 (0.32) years Ethnicity: 79% Australian Father's education: 63% grade 12 or less ***Dropout rate at follow up*** See Intervention group	***Outcome*** Symptoms of anxiety or depression, internalizing and externalizing problems ***Measures*** CDI, RCMAS, CBCL ***Results*** CDI: No significant differences at postintervention and all follow up measurements RCMAS: Decreased significantly more in the PPP group at

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group Dropout rate at follow up	Control Control group Dropout rate at follow up	Outcome measures Results Program Integrity Attendance rate
	Population 720 students, 11–13 years 51% consented to participate in screening with CDI ***Inclusion and exclusion criteria*** The 13 students with the highest score in each class. In classes with <13 students, all were invited ***Length of follow-up*** 6, 18 and 30 months	Time/session: NR Duration (weeks): 12 ***Participants*** n=90 (51% girls) Mean age: 11.91 (0.34) years Ethnicity: 70% Australian Father's education: 61% grade 12 or less ***Dropout rate at follow up*** 6/189 (whole sample) at 6 months Not clearly described at 18 and 30 months		postintervention and maintained at follow up measurements at 6 (d=0.24) and 30 months (d=0.23) but not 18 months CBCL (ext and int): significant differences postintervention that were not maintained ***Program integrity*** Mean: 74% per session, self-report and independent observer for 25% of the lessons ***Attention rate*** 87–99% attended the lessons, no child missed more than 2 lessons
Roberts 2018 [161] Australia	***Aim*** Efficacy of AOP with or without a coaching component for the teacher ***Study design*** Cluster RCT, stratified by SES, school size and the number of Grade 6 students. ***Prevention level*** Universal Indicated subsample	***Program*** AOP with family program implemented over two years, SLS part year 1, OTS part year 2 and the family program second half of year 2. ***Facilitator*** Teachers who received 8 hours of training per program part. Teachers in the coaching condition additionally received 5 hours coaching per year. Training was provided by	***Control condition*** Curriculum as usual ***Participants*** n=630 (21 schools) Characteristics: See program participants ***Dropout rate at follow up*** 623/630 at post test 2 601/630 at 12 months post intervention	***Outcome*** Internalizing and externalizing problems, clinical diagnoses ***Measures*** SDQ TDS, DICA-IV ***Results*** No significant effects on incidence of anxiety and depressive disorders, or on total difficulties.

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group** **Dropout rate at follow up**	**Control** **Control group** **Dropout rate at follow up**	**Outcome measures** **Results** **Program Integrity** **Attendance rate**
	Setting 6th Grade, in 63 government primary schools from three education districts in Western Australia ***Population*** n=3288; 2288 consented ***Length of follow-up*** 12 months	school psychologists who were accredited trainers in AOP ***Program extent*** Intensity: once a week Time/session: 60 min Duration (weeks): 10 per part ***Participants (whole sample)*** n=863 from 20 schools in no-coaching group n=794 from 22 schools in coaching groups Gender: 48.9% girls Mean age: 11.05 (0.33) years Ethnicity: 81% Australian No significant differences between groups n=211 (indicated group in whole sample) with 64% girls had a pretest score >6 on the Emotional scale of SDQ. ***Dropout rate at follow up*** AOP only: 835/863 at post test 2 809/863 at 12 months post intervention AOP + coaching: 769/794 at post test 2 746/794 at 12 months post intervention		***Program Integrity*** Based on teacher logbooks, five random student workbooks from each class ***Attendance rate*** Teachers did not fully take up the opportunity for coaching (0,30 hours in Grade 7) No information on children
Roberts 2010	***Aim*** Efficacy of AOP	***Program*** AOP	***Control condition*** Regular health education lessons	***Outcome*** Symptoms of depression

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group** **Dropout rate at follow up**	**Control** **Control group** **Dropout rate at follow up**	**Outcome measures** **Results** **Program Integrity** **Attendance rate**
[162] Australia	***Study design*** Cluster RCT ***Prevention level*** Selective ***Setting*** 7th Grade in 12 government primary schools in Perth, western Australia; schools were randomly sampled from the lowest decile of SES based on the Census Index of Relative SES ***Population*** Not described ***Length of follow-up*** 18 months	***Facilitator*** Teachers with 16 hours of training plus 8 x 60 min coaching lessons ***Program extent*** Intensity: once a week Time/session: 60 min Duration (weeks): 20 ***Participants*** n=274 (55% girls) Mean age: 11.99 (0.34) years Ethnicity: Australian 44% Annual income <50 000 AUD: 55% ***Dropout rate at follow up*** 28.8% at 18 months	relating to self-management and interpersonal skills ***Facilitator*** Teachers, who received a 30 min presentation on building resilience ***Description*** 20 lessons and similar learning outcomes as AOP ***Participants*** n=222 (53% girls) Mean age: 11.99 (0.33) years Ethnicity: 43% Australian Annual income <50 000 AUD: 45% ***Dropout rate at follow up*** 19.8% at 18 months	and anxiety, internalizing and externalizing problems ***Measures*** CDI, RCMAS, CBCL ***Results*** CDI, RCMAS: No significant effect at posttest or at follow up. CBCL: significantly lower levels of internalizing problems posttest but not maintained. No significant effect for CBCL externalizing at any time point. ***Program integrity*** >95% of content covered, measured from teachers' logbooks, students' workbook samples and blind independent observations of 3 randomly selected lessons per teacher ***Attendance rate*** <10% of students were absent for more than 20% of the lessons.
Rooney 2006 [163] Australia	***Aim*** Efficacy ***Study design***	***Program*** Positive Thinking Program ***Facilitator***	***Control condition*** Curriculum as usual ***Participants***	***Outcome*** Depressive and anxiety symptoms

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group** **Dropout rate at follow up**	**Control** **Control group** **Dropout rate at follow up**	**Outcome measures** **Results** **Program Integrity** **Attendance rate**
	Pilot RCT, nested cohort, matched pairs (SES, school size and Year 4 students) ***Prevention level*** Selective ***Setting*** Four state primary schools selected from low SES areas in the Perth metropolitan area ***Population*** n=136 4th grade students had parental permission ***Length of follow-up*** 9 and 18 months	Two psychologists with 4–years behavioral science degrees. Trained 8 hours by the program developers and received supervision and support ***Program extent*** Intensity: once weekly Time/session: 60 min Duration (weeks): 8 ***Participants*** n=72 (42% girls) Mean age: 9.08 years Significantly less depressed than the control group ***Dropout rate at follow up*** 8% at 9 months 22.4 % at 18 months	n=48 (46% girls) Mean age: 9.07 years ***Dropout rate at follow up*** 22.5% at 9 months 31.7% at 18 months	***Measures*** CDI, item on suicidal ideation was omitted, RCMAS, DICA-IV ***Results*** CDI. Significant reductions at post test, which were not maintained RCMAS: symptoms remained within the normal range for both groups No effect on anxiety Differences in depression disorder but too small study to test significance.
Rooney 2013 [164] Rooney 2013 [165] Australia	***Aim*** Efficacy of a revised AOP program ***Study design*** Pairwise randomization (matched for school size, class size and SES) ***Prevention level*** Selective ***Setting*** 12 schools were randomly selected from the largest and poorest schools in West	***Program*** Revised AOP ***Facilitator*** Classroom teachers who had training for 8 hours, supervision and support from the program developers ***Program extent*** Intensity: once weekly Time/session: 1 hour Duration (weeks): 10 ***Participants*** n=467	***Control condition*** Curriculum as usual ***Participants*** n=443 ***Dropout rate at follow up (children)*** 30/443 at 6 months 70/443 at 18 months	***Outcome*** Anxiety and depression disorders ***Measures*** CDI without the item on suicidal ideation SCAS, DICA-IV, SDQ TD ***Results*** CDI: significant difference between groups at posttest but not at follow-up. SCAS: improvement in both groups but no difference between groups

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group** **Dropout rate at follow up**	**Control** **Control group** **Dropout rate at follow up**	**Outcome measures** **Results** **Program Integrity** **Attendance rate**
	Australia and matched to another school from the same district ***Population*** 1021 children in 4th grade from 22 schools. n=910 consented (48.6% girls). ***Sample*** Mean age: 8.75 (0.36) years Gender: 49% girls Ethnicity: 85.6% Australian No significant differences between groups ***Length of follow-up*** 6, 18 and 30 months posttest	***Dropout rate at follow up (children)*** 29/467 at 6 months 58/467 at 18 months 40% at 30 months (whole sample, no difference between groups) ***Dropout rate at follow up (parents)*** 524/617 at 6 months 485/617 at 18 months 57% at 30 months (whole sample, no differences between groups)		(post intervention and follow up) SDQ TD: significant difference between groups up to 6 months. At 18 months the control group improved DICA-IV: no effect ***Program integrity*** Mean 95.6%, ratings by self-report, 25% of the lessons checked by independent raters ***Attendance rate*** Mean 9 lessons (2.1)
Tak 2014 [166] Tak 2016 [167] The Netherlands	***Aim*** Effectiveness ***Study design*** RCT, individual students were the unit of analysis but schools were randomly assigned to condition, stratified by type of education ***Prevention level*** Universal ***Setting*** Schools providing secondary education in the southern and middle parts of the Netherlands ***Population***	***Program*** OVK provided during mentor lessons ***Facilitator*** Psychologists with varying degrees of experience in CBT and teaching. All completed 5 days training. ***Program extent*** Intensity: once weekly Time/session: 50 min Duration (weeks): 16 Booster after the 8 months follow up, 2 hours ***Participants*** n=655 (four schools) (47.1%	***Control condition*** Curriculum as usual ***Participants*** n=735 (five schools) (47.5% girls) Mean age: 13.95 years (0.53) Dutch: 79% High education school: 40.2% SES: no information ***Dropout rate at follow up*** 48/735 at 6 months 68/735 at 12 months 47/735 at 24 months	***Outcome*** Depressive symptoms Anxiety ***Measures*** CDI, item on suicidal ideation was omitted RCMAS ***Results*** No difference between groups. An iatrogenic effect was seen at posttest but disappeared when controlling for baseline factors ***Program integrity***

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group** **Dropout rate at follow up**	**Control** **Control group** **Dropout rate at follow up**	**Outcome measures** **Results** **Program Integrity** **Attendance rate**
	All students in 8th grade ***Inclusion and exclusion criteria*** None ***Length of follow-up*** 6, 12 and 24 months	girls) Mean age: 13.86 years (0.56) Dutch: 86.8% High education school: 43.3% SES: no information ***Dropout rate at follow up*** n=42/655 at 6 months 78/655 at 12 months 43/655 at 24 months		80% by self-report ***Attendance rate*** 14–15 lessons
Wijnhoven 2014 [168] The Netherlands	***Aim*** Evaluate the effects of the CBT-component of OVK among adolescent girls with elevated depressive symptoms ***Study design*** RCT, randomization at school level, stratified by CDI score ***Prevention level*** Indicated ***Setting*** Three secondary schools, 1 and 2nd grade, in the Netherlands ***Population*** All girls where parents consented to screening, n=800 ***Inclusion and exclusion criteria*** CDI score at least 16 Girls with CDI >19 and suicidal ideation were excluded	***Program*** OVK, lessons 1–8. ***Facilitator*** Experienced group therapist ***Program extent*** Intensity: once a week Time/session: 50 min Duration (weeks): 8 ***Participants*** n=50 Mean age: 13.3 years (0.64) Dutch: 98% Own education: high school/pre university training 54.5% (whole sample) SES: no information No significant differences between groups ***Dropout rate at follow up*** 9/50 at 6 months	***Control condition*** No intervention ***Participants*** n=52 ***Dropout rate at follow up*** 7/52 at 6 months	***Outcome*** Depressive symptoms ***Measures*** CDI (Static symptoms), CES-D (fluctuating symptoms) ***Results*** Significantly higher scores on CDI and CES-D for the control group at 6 months follow up (d=0.74 and d=0.71) ***Program integrity*** Not reported ***Attendance rate*** Not reported

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group** **Dropout rate at follow up**	**Control** **Control group** **Dropout rate at follow up**	**Outcome measures** **Results** **Program Integrity** **Attendance rate**
	Length of follow-up 6 months			

CBCL = Child Behavior Check List; **CES-D** = Center for Epidemiologic Studies Depression Scale; **K-SADS** = Schedule for Affective Disorders and Schizophrenia for School-Age Children; **RCMAS** = Revised Children's Manifest Anxiety Scale; **SCAS** = Spence Children's Anxiety Scale; **SDQ** = Strengths and Difficulties Questionnaire

Resourceful Adolescents Program (RAP)

Table Resourceful Adolescents Program (RAP).

Author **Year** **Reference** **Country**	**Aim** **Design** **Setting** **Population** **Follow-up**	**Intervention** **Intervention group**	**Control** **Control group**	**Outcome** **Measures** **Results** **Attendance rate**
Rose 2014 [169] Australia	***Aim*** Test the effectiveness of RAP and of PIR in conjunction with RAP ***Study design*** RCT, cluster at class level and stratified by school ***Prevention level*** Universal ***Setting*** Four independent secondary schools in Sydney in Australia. Single sex schools with students from high or middle SES areas. ***Population*** Students in grade 6 and 7 n=369 allocated ***Sample*** 44% girls Mean age: 12.22 years, range 9–14 years 64.8% Caucasian, 17.1% Asian, 11.4% Mediterranean, 3.3% Middle Eastern ***Length of follow-up (months)*** Posttest RAP (10 weeks post baseline) 12 months posttest RAP	I1: RAP+placebo I2: RAP+PIR ***Program deliverer*** External psychologist in doctoral-level clinical training ***Program extent*** RAP Intensity: once weekly Time/session: 40–50 min Duration: 11 weeks PIR or placebo Intensity: once weekly Time/session: 40–50 min Duration: 9 weeks ***Participants*** I1 k=4 n=64 Ethnicity: 68.8% Caucasian I2 k=4 n=66 Ethnicity: 48.5% Caucasian ***Dropout rate at follow-up*** I1 n=11 (17%) at 12 months I2 n=6 (9%) at 12 months	***Control condition*** Waiting list ***Participants*** k=8 classes n=80 Ethnicity: 75% Caucasian ***Dropout rate at follow-up*** n=6 (8%) at 12 months	***Outcome*** Depression ***Measures*** Child rated CDI RADS-2 Clinician administered MDD assessment with DISCAP ***Results*** Posttest and 12 months follow-up: No significant differences in self-rated depression symptoms for students participating in RAP groups compared to control. ***Attendance rate*** No student formally withdrew from the study. No information on number of sessions attended. ***Program integrity*** No deviations from the manualized programs were observed

Stallard 2013 [143] UK	***Aim*** To investigate the clinical effectiveness and cost-effectiveness of RAP in reducing symptoms of depression in high-risk adolescents. ***Study design*** RCT, cluster at year group and balanced with respect to number of classes, number of students, PSHE frequency and scheduling of PSHE lessons within the school. ***Prevention level*** Indicated Universal ***Setting*** Eight mixed-sex secondary schools in UK ***Population*** 5030 students (49% girls) aged 12–16 years in 28 year groups 8 to 11. Of these 1064 (21.2%) students were classified as high risk of depression. ***Inclusion and exclusion criteria*** All students in class that took part in PSHE lessons were eligible and took part in the intervention. Primary analysis focused on students at high risk of depression; SMFQ score ≥5 at two assessments. ***Length of follow-up (months)*** 6 and 12 months post baseline	***Program deliverer*** Two external trained facilitators with an undergraduate degree and experience of working with young people or in healthcare. ***Program extent*** Intensity: once weekly or every second week Time/session: 50–60 min Duration: 9 or 18 weeks depending on intensity. Two additional booster sessions offered 6 months after the initial program was completed ***Participants (indicated)*** k=10 year groups n=392 (66.3% girls) Mean age: 14.4 years (SD 1.0) Ethnicity: 87.7% white ***Dropout rate at follow-up*** n=96 (24.5%) at 12 months	***Control condition*** C1: Attention control PSHE C2: Usual PSHE ***Deliverer*** C1: Teachers assisted by two external facilitators C2: Teachers ***Description*** Usual school PSHE delivered by teachers. In C1 external facilitators assisted in delivering lessons and engaging with the students. ***Participants (indicated)*** <u>C1:</u> k=9 year groups n=374 (63.9% girls) Mean age: 14.1 years (SD=1.0) Ethnicity: 81.7% white <u>C2:</u> k=9 year groups n=298 (66.1% girls) Mean age: 13.9 years (SD=1.2) Ethnicity: 86.6% white ***Dropout rate at follow-up*** <u>C1:</u> n=66 (17.6%) at 12 months <u>C2:</u> n=56 (18.8%) at 12 months	***Outcome*** Depression Anxiety ***Measures*** Child rated SMFQ RCADS ***Results*** At follow up 6 and 12 months from baseline: In the high-risk group no significant difference in self-rated depression symptoms measured with SMFQ and anxiety symptoms measured with RCADS in the RAP group compared to control groups. Same results were seen at universal level. In the high-risk group depression scores decreased from baseline to follow-up in all groups. ***Attendance rate*** In the high-risk group, the median percentage of RAP sessions attended was 88% (interquartile range 67–100). Median 80% attended ≥60% of RAP sessions. The booster sessions in the RAP group were completed by 40/79 classes. In total 47.8% of the universal RAP group attended at least one booster session ***Program integrity*** 36 RAP sessions were observed and 31 of these

Author Year Reference Country	Aim Design Setting Population Follow-up	Intervention Intervention group	Control Control group	Outcome Measures Results Attendance rate
				covered all core tasks, the rest covered at least 75%.

DISCAP = Diagnostic and Statistical Manual of Mental Disorders; **PIR** = Peer Interpersonal Relatedness program; **PSHE** = Personal, Social and Health Education; **RCADS** = Revised Children's Anxiety and Depression Scale; **SMFQ** = Short Mood and Feelings Questionnaire

Inkluderade hälsoekonomiska studier

Table Cost and effects of a universal parenting program delivered to parents of preschoolers.

	Study design **Population** **Setting** **Perspective**	**Intervention** **Control**	**Incremental cost**	**Incremental effect**	**ICER**	**Study quality and transferability** **Further information** **Comments**
Sampaio 2015 [94] Sweden	***Study design*** Cost and effect analysis of delivering Triple P within the context of a cluster randomized controlled trial Time period: 18 months ***Population*** A general population of 488 children attending preschool at baseline. Mean age: 2–5 years. ***Setting*** Preschools ***Perspective*** Municipality payer perspective	***Intervention*** Triple P levels 2 and 3. Level 2, consist of three stand-alone 90-min group. Level 3 includes up to four 15–20-min individual sessions targeted towards parents (n=312). ***Control*** Waitlist (n=176)	***Incremental cost*** Triple P had an average yearly total cost of 3007 SEK per child Cost reported in 2015 Swedish prices.	Triple P showed no significant improvement in child externalizing behaviors or parental mental health at either of the follow-up points.	NA	***Study quality and transferability*** Moderate quality High transferability to Sweden ***Further information Comments*** This article does not provide a full economic evaluation, as it does not attempt to link costs to health outcomes but rather provide an insight into the costs of delivering Triple P.

Table The effectiveness and cost-effectiveness of the Incredible Years® Teacher Classroom Management programme in primary school children: results of the STARS cluster randomised controlled trial.

Author **Year** **Reference** **Country**	**Study design** **Population** **Setting** **Perspective**	**Intervention** **Control**	**Incremental cost (95% CI)**	**Incremental effect (95% CI)**	**ICER**	**Study quality and transferability** **Further information** **Comments**
Ford 2019 [53] UK	***Study design*** RCT-based CEA Time period: 30 months ***Population*** Children aged with a mean age of 6 years (4–9 years), Male/female (%): 53% male and 47% female. ***Setting*** Schools ***Perspective*** Public-sector perspective	***Intervention*** Incredible Years: delivered to groups of teachers in six whole-day sessions (n=898) ***Control*** Teaching as Usual (n=906)	Observed mean total costs of services used over the 30-month follow-up were slightly lower for the intervention arm (GBP 524.16) compared with the control arm (GBP 528.14). Adjusted mean difference in cost was GBP 30.24 (95% CI, −140.98 to 201.47, p value=0.73). Costs were reported in GBP financial year 2015.	***Incremental effect*** Strengths and Difficulties Questionnaire (SDQ) Follow-up at 9 months 5.5 (5.4) in Incredible Years. vs 6.2 (6.2) in Teaching as Usual. Adjusted mean difference = −1.0 (95% CI,−1.9 to −0.1; p=0.03) There was no significant difference between the groups at the 18-month follow-up (p=0.85) or 30-month follow-up (p=0.23).	Overall: –£29.70 per unit improvement in SDQ Probabilistic sensitivity analyses suggest that intervention has a just under 40% probability of being cost-effective at a zero willingness to pay for a unit improvement in SDQ-Total Difficulties score, to nearly 80% at a £5000 willingness to pay threshold and is 50% or higher at values of £70 and above.	***Study quality and transferability*** High quality Moderate transferability to Sweden

CEA = Cost-effectiveness analysis; **SDQ** = Strengths and Difficulties Questionnaire

Table Supporting Strategic Investment in Social Programs: a Cost Analysis of the Family Check-Up

Author Year Reference Country	Study design Population Setting Perspective	Intervention Control	Incremental cost	Incremental effect	ICER	Study quality and transferability Further information Comments
Kuklinski 2020 [170] USA	***Study design*** Cost analysis of delivering the Family Check-up programme within the context of a two-arm, randomised controlled trial (Early Steps). Time period: 4 ***Population*** Children with a mean age of 2 years (2–3 years). No at baseline: 731 families with an increased risk of developing mental health problems. ***Setting*** Home-based intervention delivered to high-risk families in three geographically and culturally diverse locales in the USA (Charlottesville VA, Pittsburgh PA, and Eugene OR) ***Perspective*** Societal perspective	***Intervention*** Family Check-up: three-session health promotion and maintenance intervention. (n=367) ***Control*** "Business as usual" (n=364)	***Incremental cost*** Annual average cost of delivering Family Check-up was $1066 ($400) per family (2015 USD). This comprised costs of time spent by staff delivering the intervention, training, ongoing support and technical assistance, supplies, and training-related travel. Once training and oversight patterns were established, additional families could be served at half the cost, $501 ($404). Costs reported in Us dollar year 2015.	NA	NA	***Study quality and transferability*** Moderate quality Low to moderate transferability to Sweden

Table A cluster randomised controlled trial comparing the effectiveness and cost-effectiveness of a school-based cognitive–behavioral therapy programme (FRIENDS) in the reduction of anxiety and improvement in mood in children aged 9/10 years.

Author Year Reference Country	**Study design Population Setting Perspective**	**Intervention Control**	**Incremental cost (SD)**	**Incremental effect (SD)**	**ICER (95% CI)**	**Study quality and transferability Further information Comments**
Stallard 2015 [171] UK	***Study design*** RCT-based CEA; ITT analysis Time period: 6 months ***Population*** Children aged 9–10 years attending school and participating in personal, social and health education (PSHE). No at baseline: 1448 ***Setting*** Primary schools ***Perspective*** Health sector perspective	***Intervention*** The intervention was delivered to whole classes of children (universal delivery) over nine 60-minute weekly sessions by either health professionals (external to the school) or school leaders. School-led FRIENDS, (n=497) Health-led FRIENDS, (n=509) ***Control*** Usual school provision (n=442)	***Incremental cost*** Health-led FRIENDS: GBP 63.68 (60.2) School-led FRIENDS: GBP 64.37 (34.82) Usual school provision: GBP 11.19 (44.15) Costs reported in GBP year 2013.	Health-led FRIENDS: 0.388 (0.057) School-led FRIENDS: 0.401 (0.051) Usual school provision: 0.390 (0.056)	Health-led FRIENDS vs. usual school: –14.617 (3407 to –2243) Health-led FRIENDS vs. school-led FRIENDS: –3 (undefined) The only statistically significant difference between groups in either costs or effects at 6 months were the cost difference between health-led FRIENDS and usual school provision. Correspondingly, the ICERs have extremely wide uncertainty limits (when they can be calculated). Compared with usual school provision, health-led FRIENDS never reach more than a 35% probability of being cost-effective at any willingness to pay for a QALY.	***Study quality and transferability*** High quality Moderate transferability to Sweden ***Further information Comments*** The study did not conduct an economic evaluation at the 24-month as planned. The reasoning behind this decision were (1) there were not statistically significant between-group effects at 24 months and (2) the interview subsample of parents and their children who supplied resource use data was substantially different from the group of non-interviewed parents/children and was also smaller again at the 24-month follow-up time point (only 252 parents were interviewed at this follow-up point compared with 308 at baseline)."

CEA = Cost-effectiveness analysis

Table The PATHS curriculum for promoting social and emotional well-being among children aged 7–9 years: a cluster RCT.

Author Year Reference Country	**Study design Population Setting Perspective**	**Intervention Control**	**Incremental cost**	**Incremental effect (95% CI)**	**ICER**	**Study quality and transferability Further information Comments**
Turner 2020 [172] UK	***Study design*** RCT-based CEA; ITT analysis Time period: 24 months ***Population*** Children aged between 7 to 9 years attending school. No at baseline 5218 with and about 50% were female ***Setting*** Primary schools in seven local authorities in Greater Manchester ***Perspective*** Trial setting and policy-maker perspectives	***Intervention*** PATHS: lessons last for 30–40 min and were designed to be delivered twice weekly throughout the school year. Curriculum packs contained an average of 40 lessons. (n=2223) ***Control*** Usual provision (n=1665)	***Incremental cost*** Incremental cost of PATHS compared with usual provision GBP 29.93 per child. Costs were reported in GBP and inflated to year 2018/19.	***Incremental effect*** Adjusted mean QALY difference: 0.0019, (0.0009 to 0.0029). QALY is estimated using the CHU-9D utility value.	Based on per child cost: 15 753 GBP per QALY gain. Probabilistic sensitivity analyses suggest that intervention exceeds 50% probability of being cost-effective if willingness-to-pay per QALY thresholds is beyond £15 100	***Study quality and transferability*** Moderate quality Moderate transferability to Sweden

CEA = Cost-effectiveness analysis

Table Cost-effectiveness analysis of parenting interventions for the prevention of behavior problems in children.

Author Year Reference Country	Study design Population Setting Perspective	Intervention Control	Incremental cost (95% CI)	Incremental effect (95% CI)	ICER	Study quality and transferability Further information Comments
Nystrand 2019 [173] Sweden	***Study design*** A decision analytic cost-effectiveness model ***Population*** Time period: Age-specific cohorts were modelled until the age of 18 Children aged between 5 to12 years ***Setting*** National community-based setting. ***Perspective*** Paying agency perspective	***Intervention*** COPE: 10 weekly sessions à 2–2.5-hour Connect: 10 weekly sessions à 1-hour Comet: 11 weekly sessions à 2.5-hour IY: 12 weekly sessions à 2–2.5-hour Bibliotherapy: a book developed based on comet ***Control*** Waiting list	***Incremental cost*** COPE: 942 (928 to 955) USD Connect: 344 (340 to 349) USD Comet: 790 (779 to 802) USD YI: 1250 (1231 to 1269) USD Bibliotherapy: 617 (608 to 626) USD Costs reported in USD year 2015.	Mean DALY averted in comparison to the waitlist control: COPE: 0.17 (0.17 to 0.17) Connect: 0.06 (0.06 to 0.06) Comet: 0.14 (0.14 to 0.15) YI: 0.23 (0.23 to 0.24) Bibliotherapy: 0.11 (0.11 to 0.12)	COPE: dominant compared to waiting list Connect: dominant compared to waiting list Comet: 972 USD per DALY averted YI: 224 USD per DALY averted Bibliotherapy: Dominant compared to waiting list	***Study quality and transferability*** Moderate quality High transferability to Sweden ***Further information Comments*** Bibliotherapy is the most inexpensive. However, if decision-makers are willing to invest more in return of higher effects on externalizing problems, the IY reduced the highest amount of DALYs. The data used to estimate the effectiveness of the programmes were extracted from a study which lacks information on the waitlist control after post-test measurement. They assume that hat the proportion of recovered cases at post-test would be the same at follow-up for the waitlist.

Table Cost-effectiveness analysis of parenting interventions for the prevention of behavior problems in children.

Author Year Reference Country	Study design Population Setting Perspective	Intervention Control	Incremental cost (95% CI)	Benefit-cost ratio (95% CI)	ICER	Study quality and transferability Further information Comments
Nystrand (ROI) 2019 [174] Sweden	***Study design*** State-transition modelling approach (Markov-model) Time period: Age-specific cohorts were modelled until the age of 20 ***Population*** Children aged 5–12 years ***Setting*** National community-based setting. ***Perspective*** Local authority perspective	***Intervention*** COPE: 10 weekly sessions à 2–2.5-hour Connect: 10 weekly sessions à 1-hour Comet: 11 weekly sessions à 2.5-hour IY: 12 weekly sessions à 2–2.5-hour Self-help booklet: a booklet developed based on comet ***Control*** Waiting list	Comet: 817 (813 to 821) EUR Connect: 295 (293 to 296) EUR COPE: 417 (415 to 419) EUR YI: 1142 (1136 to 1148) EUR Self-help booklet: EUR 13 (13 to 13) Costs reported EUR in year 2015.	Comet: 7.00 (6.84 to 7.17) EUR Connect: 10.61 (10.29 to 10.93) EUR COPE: 15.80 (15.46 to 16.13) EUR YI: 5.96 (5.81 to 6.11) EUR Bibliotherapy: 328.04 (320.09 to 335.99) EUR	NA	***Study quality and transferability*** Moderate quality High transferability to Sweden

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