Journal of Interpersonal Violence

Evaluation of parenting interventions to prevent violence against children in Colombia – a randomised controlled trial

Journal:	*Journal of Interpersonal Violence*
Manuscript ID	JIV-17-196.R1
Manuscript Type:	Original Research
Keywords:	Prevention of Child Abuse < Child Abuse, Children exposed to domestic violence < Domestic Violence, Intervention/treatment < Domestic Violence

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Introduction

Violence against children is a widespread social problem with detrimental consequences for both the individual and the community (Guedes et al., 2016). Child maltreatment, including physical abuse, sexual abuse, neglect, emotional abuse, and exploitation (World Health Organization, 2014), may occur in the child´s community or in their home, directly or indirectly by observing intimate partner violence (Hillis, Mercy, & Saul, 2017). Estimates based on 33 low- and middle-income countries (according to the authors representing approximately ten percent of the total world population) suggest that three out of four children are exposed to violence at home, including psychological aggression (73%), physical punishment (48%), both physical punishment and psychological aggression (46%), and severe physical punishment (17%) (UNICEF, 2011). Parents are more likely to use corporal punishment when they are experiencing high levels of stress (Pinderhughes et al., 2000, p. 392) and parental frustration (Regalado, Sareen, Inkelas, Wissow, & Halfon, 2004).

Domestic violence exposure, including child abuse and witnessing family violence, may have long-term ramifications on mental health, adaptation, identity, and social, emotional, and behavioural functioning, as well as increased risk of experiencing new traumas (Holt, Buckley, & Whelan, 2008). A recent meta-analysis including 160,927 children showed a relationship between physical abuse and adverse child development outcomes, including mental health problems and antisocial behaviour (Gershoff & Grogan-Kaylor, 2016). Furthermore, studies suggest that children who have been maltreated are at risk of future perpetration and victimization of violence, including risk of using violence against peers and siblings (Simons & Wurtele, 2010) and of experiencing dating violence and intimate partner violence (Widom, Czaja, & Dutton, 2014).

In view of the high number of children exposed to violence throughout the world, there has been highlighted an urgent need for preventive interventions for several years (Walker et al., 2007), yet the problem persists, which might partly be due to the fact that prevention of such

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violence experience is a complex challenge (Finkelhor & Lannen, 2015). A number of pathways have been explored to try to limit or ameliorate violence experiences for children, such as legislation relating to corporal punishment and the banning of certain acts with redress under the law, and social protection pathways to protect children or remove them from violent environments. Parenting programmes is another pathway. Even though some reviews have indicated that parenting programmes can promote positive parenting skills likely to strengthen children´s developmental potential (e.g. Barlow, Johnston, Kendrick, Polnay, & Stewart-Brown, 2006; Chandan & Richter, 2008), evaluations of child violence prevention programmes generally find little effect, both on the prevalence of child maltreatment or associated risk factors, whereas most programmes have not been evaluated at all (Klevens & Whitaker, 2007). These contradictory findings are mirrored in two recent meta-analyses that draw somehow different conclusions regarding the effectiveness of parent programmes in reducing child violence. Euser and colleagues (2015) base their review on 27 randomized controlled trials published between 1986 and 2011. Their results show effect of parenting programmes when targeting maltreating families, but not when targeting at-risk families, and the authors hence conclude that parenting programmes can reduce but not prevent child maltreatment. Moreover, after controlling for publication bias, they conclude that parent programs have no significant effect on neither reduction nor prevention of child violence (Euser et al., 2015). Chen and Chen (2016) base their review on 37 parenting programmes published between 1986 and 2013. They find that parenting programmes reduce risk factors commonly associated with child maltreatment, and enhance protective factors such as increase in positive attitudes towards child rearing. Both papers point to a lack of studies in developing countries and a need of RCTs investigating the effectiveness of current parent programs in reducing child maltreatment in low- and middle income countries.

One available social program used internationally that focuses on providing support for parents, caregivers and children is the International Child Development Program (ICDP). The

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programme is implemented in educational and care institutions both as a preventive measure for the general population and targeted to reach the most vulnerable children (ICDP, 2017). The overall goal of the programme is to influence caregivers' positive experience and emphatic identification with the child, help them be sensitive to the child's state and needs, and adjust the caregiving accordingly (ICDP, 2017). Certified ICDP trainers train local care persons within a society to lead ICDP groups (facilitators) and provide guidance to caregivers. The facilitators are trained to work with sensitive topics such as violence, however the regular programme does not specifically address violence if the caregivers themselves do not bring it up. The underlying assumption is that a poor caregiver-child relationship, negative view of the child, and low caregiver self-confidence are risk factors for violence and abuse, and that sensitization of caregivers may strengthen child-parent bonds and promote positive discipline without resorting to physical or psychological violence (Hundeide, 2010). These assumptions are supported by a meta-analysis including 155 studies addressing risk factors related to child violence (Stith et al., 2009). Meta-analyses of child violence (Chen & Chen, 2016; Euser et al., 2015) include both general parenting programmes and programmes specifically designed to work with violence and coercive parenting issues. One question is whether general parenting programs such as the ICDP is sufficient for reducing caregiver violence, or whether more dedicated violence programs are needed.

Reviews of data show that few parenting interventions have been evaluated in low-income countries (Knerr, Gardner, & Cluver, 2013; Mejia, Calam and Sanders, 2012). Despite the long-lasting armed conflict, lasted from 1964, and an overall high violence rate in Colombia, there is a dearth of violence research (Moestue, Moestue, & Muggah, 2013), and no published evaluation studies of preventive child development initiatives from the Chocó department, which has the highest incidence of poverty (64%) in Colombia (DANE, 2013), as well as low scores on all health indicators except breastfeeding (Mejía, 2013). The widespread community violence, which includes not only armed conflicts, but also kidnappings, threats, sexual

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violence, forced displacements, corruption, drug and weapon traffic, and a huge black economy (Política Pública, 2014), influences the home environment with internalization of family violence (Measure, 2010). Only 17 percent of mothers do not punish their child physically, and parent-child interactions are generally poor (Mejía, 2013). For example, less than one in five main caregivers participate in activities with the child at least five times a week (Mejía, 2013).

A recent published case study (Cook, Mack, & Manrique, 2017) suggested the feasibility of a model combining ICDP with a violence prevention and child rights component. Self-reports from this study demonstrated improved child and family outcomes, as well as strengthened formal and informal child protection systems in the communities (Cook et al., 2017). The intervention in this study included three phases: 1) Enhancing parenting empathy (through ICDP training), 2) Developing local child indicators to empower communities, and 3) Strengthening partnerships for child protection and peace (Cook et al., 2017).

The present study utilizes a randomized controlled design to investigate whether ICDP, by focusing on strengthening positive caregiving and familial relationships, is effective as a violence preventive measure, and whether a specific violence prevention curriculum (phase 2 and 3 as described by Cook et al., 2017) would add to the effect, when compared to participation in regular social program activities at child care centers in the Chocó department of Colombia. ICDP has operated in Colombia since 2003 and in Chocó since 2007. The current study is therefore both timely and strategic.

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Method

A three-group randomized design was utilized. Attenders at community-based child centers were randomly allocated to i) organized Community Activities plus regular ICDP (CA+ICDP), ii) organized Community Activities plus a shortened ICDP supplemented by a Violence Curriculum (CA+ICDP+VC), and iii) organized Community Activities alone (CA). In this high violence field setting it was considered unethical for a true no provision control group.

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At baseline, 323 caregivers of children aged between 3 and 4 years with a mean age of 3.81 (49.7% girls) were recruited from the Chocó region in Colombia. They were recruited among families belonging to six different social services child centres run by Instituto Colombiano de Bienestar Familiar (ICBF), where the children receive nutritional and health support. Parents attended the health promoting entity called Entidades Promotoras de Salud (EPS) that offers health services subsidized by the government to families with low income. All registered parents were eligible for inclusion in the study if they had a child within the relevant age group. A full log of refusal rates and non-completion was maintained. At baseline, all participants agreed to take part in the study. After recruitment, families were randomly allocated to one of the three group conditions. At follow-up, 147 participants were excluded from the analysis. Exclusion criteria included not taking part in the programme and when caregivers send someone else to fill in the questionnaire. Only three participants [0.93%] did not want to participate further. Excluded caregivers were more likely to experience community violence compared to those retained at follow-up (62.6% vs. 48.3%, $X^2(1)=6.37$, $p=.012$). No other variables, including receipt of intervention, age, gender, marital status, education, work status, income, household size, mental health problems and experiences or partner violence, were associated with loss to follow-up.

Procedures

The evaluation was set up between August 2012 and August 2015, in cooperation with the University of Oslo and University College London, ICDP International, Unicef Colombia ICDP Colombia and the Universidad Tecnológica del Chocó. There was close collaboration with the family authorities in Colombia, as well as the leaders of the centres where data were collected.

A field visit and meeting with all involved participants was set up in Chocó in November 2012. The data collectors were taught about the nature and conduct of the research, and trained in administering the standardised questionnaires. The questionnaire was piloted, and adjusted

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based on the pilot feedback in order to reflect the cultural reality of Chocó. Three child centres used an online questionnaire through Confirmit platform and one completed the questionnaire by hand as there was no Internet access. Information about the study, consent form, procedures, and questionnaires were translated to Spanish, and the questionnaire was also back translated for accuracy. Baseline data were collected between January 2013 and January 2014, and follow up data were collected after six months between July 2013 and July 2014. The local project coordinator conducted the randomization by putting down all the names of the recruited families in a random order and giving them a number for each of the group conditions (1, 2, 3, 1, 2, 3, etc.). The data collectors were blind to the group allocations. All involved parties were paid local fees for their work.

Ethics

The study was registered at the Regional Committees for Medical and Health Research Ethics (reference number 2012/1169/REK sør-øst A) and approved by the Norwegian Social Science Data Services (reference number 31613/3/MSI) with specific site approval from the family authorities in Colombia (República de Colombia, Instituto Colomblano de Bienestar Familiar, Regional Chocó) who are responsible for the centres where the data were collected. In line with the ethics of equality of provision, all groups received all preventive programmes available at the source centres. The design allowed for provision of ICDP and ICDP+VC at the centres after the study period, available to all caregivers in the comparison group who wanted it.

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Interventions

All participants attended the child centres, which had a number of health, nutrition and educational facilities available. The comparison group received no additional intervention. The CA+ICDP groups followed the general recommendations of ICDP, in which two ICDP-trained facilitators initiate discussions and activities related to the three dialogues for good caregiver-child interaction in ICDP, related to emotions, communication, and regulation (Hundeide, 2010,

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p. 26). ICDP methods include group discussions, role play, home practice between the group meetings, and reporting back to the group. There were 12 ICDP group meetings.

The CA+ICDP+VC groups were run in the same way as the ICDP groups; however the ICDP part was more intensive, as it was implemented over six group meetings rather than twelve. Following that, the caregivers attended six group meetings with a preventive Violence Curriculum developed in 2010 by ICDP in cooperation with the International Centre for Education and Human Development (CINDE) and the International Institute for Child Rights and Development (IICRD) in Colombia. The Violence Curriculum is implemented through informative workshops where the aims are to 1) sensitize and train community stakeholders on child development, the negative effects of violence, their role in protecting children, and legislation and policy frameworks, and 2) develop formal and informal child protection mechanisms, where relevant actors as well as risk and protective factors are mapped out and results shared with the local child authorities, followed by a plan of action to protect children from violence. VC methods include caregiver self-activation in form of designing protective strategies and develop monitoring tools to follow up on the two aims (IICRD, CINDE, & ICDP, 2012, p. 6).

Measures

The caregivers completed questionnaire concerning the following topics:

Demographic and socio-economic characteristics. Caregivers reported their age, gender, marital status, education (highest degree achieved), occupation, individual and family income (monthly salary in Colombian pesos, then converted into US dollars), number of residents in the home, number of children, and age and gender of their child closest in age to four years (focus child for the current evaluation).

Mental health. Caregiver mental health was measured using the Shona Symptom Questionnaire (SSQ) (Patel, Simunyu, Gwanzura, Lewis, & Mann, 1997). The SSQ is a self-administered 14-item screening tool for common mental disorders such as depression and

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anxiety. It has been validated in low-income settings in Zimbabwe (Chibanda et al., 2016; Patel et al., 1997). It has a satisfactory sensitivity against a diagnosis of depression (84%) and anxiety (73%), and an acceptable internal reliability ranging from α=0.74 (Chibanda et al., 2016) to α=0.85 (Patel et al., 1997). The participants answer yes or no to questions and record symptoms such as thinking too much, failing to concentrate, work lagging behind, tiredness, insomnia, suicidal ideation, and unhappiness over a one week period. Participants scoring 8 or above were at risk of being affected with a common mental health disorder diagnosis.

Community violence. Caregivers' experience with community violence was measured using the Exposure to Violence Interview, a subscale within the Chicago Youth Development Study (CYDS) Stress and Coping Interview (Tolan & Gorman-Smith, 1991) that lists ten specific items related to victimisation and witnessing violence. For example, participants were asked if they had ever witnessed anyone being beaten, seen someone shot or killed, or being a victim of a violent act during the last year. The scale was dichotomised into *none* versus *any* of these ten experiences.

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Intimate partner violence. Victimisation of intimate partner violence was measured using the HITS questionnaire (Sherin, Sinacore, Li, Zitter, & Shakil, 1998). HITS consists of the following four screening questions: "Over the last 12 months, how often did your partner: a) physically hurt you, b) insult you or talk down to you, c) threaten you with physical harm, and d) scream or curse at you?". Perpetration of intimate partner violence was measured using the same four screening questions from HITS. This component of HITS, focusing on perpetration of violence, was added by Skar and associates (2012). The questions were: "Over the last 12 months, how often did you: a) physically hurt your partner, b) insult your partner or talk down to your partner, c) threaten your partner with physical harm, and d) scream or curse at your partner?" Participants responded to each of the victimization and perpetration items using a 5-point frequency format: never, rarely, sometimes, fairly often, and frequently, with sum score

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values ranging from 4 to 20. The victimisation and perpetration scales were dichotomised into *none* versus *any* of these experiences.

Sexual abuse. A question about sexual abuse was created and scored in the same manner as the HITS (Sherin et al., 1998). The question addressed sexual abuse generally: "Over the last 12 months, how often did your partner abuse you sexually?"

Child violent and non-violent discipline. Caregivers completed the Conflict Tactics Scales, Parent-Child Version (CTSPC) (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998) which includes three scales: Psychological Aggression (8 items), Physical Assault (12 items), and Non Violent Discipline (4 items). The physical violence scale is broken down into minor, severe, and very severe forms of violence, while psychological violence is divided into minor/moderate and severe forms of violence. The participants indicated 0 (this has never happened), 1 (once in the past year), 2 (twice in the past year), 3 (3-5 times in the past year), 4 (6-10 times in the past year), 5 (11-20 times in the past year), 6 (more than 20 times in the past year), or 7 (not in the past year but it did happen before). The CTSPC includes scores for prevalence, chronicity, and frequency (Straus et al., 1998). In the present analysis, we examined prevalence rates, i.e., the percentage of the sample who reported one or more instances of the acts in each scale.

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Statistical analysis

Chi-square and one-way ANOVA tests were used to examine differences across conditions in terms of caregiver's age, gender, education, marital status, work status, socio-economic status, or any of the outcomes at baseline.

A series of univariate logistic regressions were run to examine predictors of victimisation and perpetration of intimate partner violence, uses of violent methods to discipline children, and prevalence of mental health problems. Potential predictors were caregiver characteristics (age, gender, marital status, education, work status and income), household

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characteristics (household size, household income, domestic violence), child characteristics (age and gender), and community characteristics (violence).

McNemar, a non-parametric repeated measures test for binary data, was applied to assess differences between intervention groups (CA+ICDP and CA+ICDP+VC) and the comparison group (CA) at two different points in time. The measures include prevalence rates of victimisation, perpetration of intimate partner violence, physical assault, psychological aggression towards children, and common mental health problems. Analyses were carried out using IMB SPSS 20.0.Precise p-values are reported in the tables. Statistical significance was set at $p < .05$.

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Results

Sample characteristics at baseline

Caregivers had an average age of 31.89 years (range 18-64) and most were female (78.5%). More than half of the participants lived with a partner (50.6%), 12.8 percent were married, 29.5 percent were single, four percent were divorced/separated and one percent were widowed. Nearly half of caregivers (47.1%) had higher education and 52.8 percent worked as regular employees. The number of residents in the home ranged from two to 17 (mean=4.8), and the number of children in the family ranged from one to five (mean=1.8). Almost half of the caregivers (48.3%) lived in low-income households (<197 USD per month), and 40.3 percent of employed caregivers received a salary of 33 USD per month or less.

Table 1 shows the demographic and socio-economic characteristics for the overall sample and across the three study groups (CA+ICDP, CA+ICDP+VC, and CA). The groups did not differ significantly in terms of age, gender, marital status, work status, education, household size (number of adults and children living in the household), and individual or household income.

[insert table 1]

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Experiences of violence and prevalence of mental health problems among caregivers at baseline

A majority of the caregivers (58.5%) had been exposed to some form of community violence and nearly half of the caregivers (47.2%) had experienced such incidents the last year. Among caregivers being exposed to community violence the last year, witnessing violence was most common. At baseline, 27.8 percent reported having seen someone being beaten up, 22.2 percent reported that they had a family member robbed or attacked, and 14.2 percent said they had a family member or close friend killed. Of the 176 caregivers, 9 (5.1%) reported having been victims of a violent crime.

Overall, 20 caregivers (11.4%) had been victims of intimate partner violence, and 11 (6.3%) reported being perpetrators of intimate partner violence. Domestic violence actions (from or towards the partner) included insults, offensive language, threats and physical assault. Fourteen caregivers were both victims and perpetrators of domestic violence. None of the participants reported sexual assault incidents at home (see table 2).

[insert table 2]

Almost all caregivers (98.3%) engaged in nonviolent disciplinary tactics for correcting their child's misbehaviour. The most frequent technique was explaining why something was wrong (90.3%). Almost the same percentage of caregivers engaged in some form of physical discipline with their child (97.7%). The most common form was corporal punishment, such as hitting the child on the bottom with a belt, a hairbrush, a stick or some other hard object (70.5%). A large minority of caregivers reported engaging in psychological aggression (35.8%). The most common forms were swearing (23.3%) and shouting, yelling or screaming at the child (19.9%) (see table 3].

[insert table 3]

Table 4 shows that 33 caregivers (19.2%) scored above the Shona Symptom Questionnaire clinical cut-off indicating a risk of common mental health problems, such as depression and

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anxiety. At baseline, the groups' scores at Very Severe Physical Child Discipline and Ordinary Psychological Aggressive Child Discipline differed significantly (See table 4). In both cases, the frequency was lower in the Comparison group than in both the CA+ICDP and CA+ICDP+VC group. There were no other significant differences across the three groups for rates of community and domestic violence, violent and non-violent discipline methods, and mental health problems (see table 4).

[insert table 4]

Predictors of violence and mental health problems

Compared to other caregivers, caregivers exposed to intimate partner violence were more likely to suffer from depression and anxiety symptoms (OR: 2.48, 85% CI: 1.22-5.04, p=.01), to live in low-income families (OR: 2.78, 95% CI: 2.78, 95% CI: 1.32-5.76, p=.007), and to be exposed to community violence (OR: 2.33, 95% CI: 1.12-4.87, p=.02). Caregivers who were violent towards their partner were more likely to live on a low income (individual salary below 33 USD per month) (OR: 2.75, 95% CI: 1.11-6.86, p=.03).

Mild types of physical assault to discipline children at home were common among participants in the study and did not differentiate participants. Compared to other caregivers, caregivers who reported using severe or very severe physical assault to discipline their child were more likely to be unemployed (OR: 2.07, 95% CI: 1.15-3.70, p=.02) and to experience both domestic violence (OR: 5.24, 95% CI: 1.23-22.35) and community violence (OR: 2.44, 95% CI: 1.38-4.34, p=.002). Likewise, psychological aggression to discipline children at home was predicted by unemployment (OR: 1.92, 95% CI: 1.22-3.02, p=.005) and exposure to domestic violence (OR: 4.14, 95% CI: 1.94-8.84, p<.001) and community violence (OR: 2.47, 95% CI: 1.56-3.93, p<.001). Additionally, caregivers who used psychological aggression were more likely to suffer from symptoms of common mental disorders (OR: 1.85, 95% CI: 1.08-3.17, p=.03).

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Being a perpetrator of partner violence was not significantly associated with using violent behaviour to discipline own children. Moreover, age and gender of the child were not associated with the caregiver's use of violent discipline.

Caregivers who scored above the Shona Symptom Questionnaire clinical cut-off for common mental health disorders (depression/anxiety) were more likely to be female (OR: 2.97, 95% CI: 1.29-6.83, p=.01) and having been exposed to intimate partner violence (OR: 2.48, 95% CI: 1.22-5.04, p=.01).

Effect of ICDP interventions on caregiver outcomes and child discipline

Table 5 shows the prevalence rates of domestic violence experiences (from the partner, towards the partner and towards children) before and six months after intervention. [see table 5]. There was an overall reduction of caregivers' exposure to intimate partner violence at follow-up. The comparison group who did not receive a targeted intervention had a reduction in reported rates of intimate partner violence from 11.8% at baseline and 5.9% at follow up, whereas caregivers attending the ICDP intervention had a reduction 11.9% at baseline to 3.4% at follow-up (p=.05). Yet, those attending the CA+ICDP+VC intervention benefited the most, with a decrease in reported rates of exposure to partner violence from 10.6% to 1.5% (p=.02). There was also a small reduction in caregivers' reports of violent behaviour towards their partners across groups, and in the A+ICDP+VC group in particular, but this change did not reach statistical significance.

[insert table 5]

The use of physical assault towards children had decreased significantly at follow-up, with positive changes in all groups including the comparison group (from 99.4% to 61.4%, p<.001 for the three groups combined). Figure 1 shows the reduction for each of the three subscales of physical assault, which differ in degree of severity. The reduction in rates of mild (41, 38, and 33% reduction for the CA+ICDP, CA+ICDP+VC, and CA respectively), severe

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(83, 78, and 51%), and very severe physical assaults (96, 98, and 89%) was somehow larger for the two intervention groups, however the difference between the groups was not significant.

The total reported use of psychological aggression increased at follow-up across all groups (from 35.8% to 66.5%, $p < .001$). This change was explained by increased reports of minor types of aggression, from 18.6 at baseline to 66.1% at follow-up for the CA+ICDP, from 33.3 to 62.1 for the CA+ICDP+VC, and from 9.8 to 68.6 in the CA, while severe types of aggression were reduced significantly from 25.4 at baseline to 13.6 at follow-up, from 25.8 to 12.1, and from 21.6 to 7.8 for the CA+ICDP, CA+ICDP+VC, and CA respectively. [see figure 1]

[insert figure 1]

Caregivers reported high rates of mental health problems before the intervention, with 19.2% of the total caregiver group scoring above the clinical cut-off for depression and anxiety (see figure 2). After intervention, the proportion of caregivers at risk of poor mental health decreased to 9.7% overall (p=.006). Changes by group showed a statistically significant reduction of mental illness risk for the group who received the CA+ICDP intervention only, from 22.4% to 5.1% (p=.003), whereas the percentage of caregivers scoring above the clinical cut-off for mental health problems in the CA+ICDP+VC (from 16.9 to 12.1%), and comparison group (from 18.4 to 11.8%) did not reach significance (see figure 2).

[insert figure 2]

Discussion

This study examines the utility of the ICDP parenting programme in a high community violence setting in Chocó in Colombia. Approximately half of the caregivers lived in low-income families and approximately half were unemployed. As many as 46 percent reported to have achieved higher education. In Colombia, universities are made accessible to the poor, so some do have degrees but continue to be unemployed and poor. Participants reported high levels of violence at baseline, both in the home and in the community. More than half of the overall

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sample had been exposed to some form of violence in the community, and 14.2% had a family member or friend killed.

Almost all caregivers reported engaging in some form of corporal punishment to discipline their child (98.8%), with 61.6 percent using very severe forms of violence, and 35.8 percent reported engaging in acts of psychological aggression. This is comparable to previously reported data from Chocó, where 87 percent of mothers reported using physical violence towards their child (Mejía, 2013), but higher on physical violence and lower on psychological aggression than reported across 33 low- and middle income countries (48% and 73% respectively) as reported by UNICEF (2011).

The comparison group was gathered from the same local centres and the randomization created groups that did not differ significantly at baseline. The intervention was associated with a reduction in child violence beyond participation in regular social activities and programmes at the clinics. Control samples in studies of parenting interventions in low- and middle- income countries often include “services as usual” (Knerr et al., 2013). The present study included a comparison group that received standard programmes at the centres, instead of a control group that was not exposed to any type of intervention. Most interventions is better than no interventions and by comparing the programmes in focus with services as usual, it is possible to investigate whether the ICDP and the ICDP including the violence curriculum is worth implementing. In the current study, caregivers in the comparison group attended the child centres and there were changes in this group as well, possible due to contagion, or participation in other social activities at the centers. Especially the implementation of a violence prevention project during the project period by the Instituto Colombiano de Bienestar Familiar (ICBF) social services may have influenced the comparison group, but also the intervention groups, and thereby the results.

However, the changes were larger for parents attending the ICDP programmes. The decrease was largest in the CA+ICDP group in relation to severe violence and in the

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CA+ICDP+VC group in relation to very severe violence. It could be that ICDP, though a focus on empathy, love, communication, and alternative regulative methods, decreased severe forms of violence against children, and that the specific violence curriculum, through a more direct focus on the consequences of violence as well as strategies to avoid severe forms of violence, helped reduce very severe forms of violence by working more specifically with these issues in the intervention. This indicates that CA+ICDP+VC is more effective than standard ICDP when there is severe violence within the family, whereas the basic ideas and practices promoted in ICDP seem sufficient to promote reduction in more “ordinary” physical punishment. The indirect approach of the ICDP may provide caregivers with a larger knowledge foundation and more parenting strategies what may substitute for physical discipline, and thereby promote better internalization of positive parenting strategies.

Minor psychological aggression increased at follow up across all groups (from 21.6 to 65.3%), while severe psychological aggression decreased across all groups (from 24.4% to 11.4%). The indicates a decrease in severe forms of physical and psychological discipline, which were replaced with milder psychological discipline, which therefore increased as a result of the change from severe to mild. This is in line with the findings from a retrospective evaluation of ICDP in a low-income setting in Mozambique, where ICDP attendance was associated with an increase in less severe corporal punishment and decrease in more severe forms (Skar, Sherr, Clucas, & von Tetzchner, 2014). It emphasizes that parenting might change gradually rather than abruptly, and in spite of the violent culture, follow-up interventions may lead to further reductions in severe physical and psychological discipline. Another explanation, which require observational methods to investigate, is that caregivers withhold information following the intervention due to new knowledge about the effects of violence on children which might create a stigma related to the use of severe psychological aggression.

The caregivers had a high mental health burden; 19.2 percent scored above the clinical cut-off on the Shona questionnaire. At six months follow-up, the mental health problems were

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reduced, mostly for the CA+ICDP group. Higher emotional well being is associated with lower odds for child violence (e.g. Regalado et al., 2004), and it might be that reduced parental mental health problems enables caregivers to sense the child´s needs to a greater extent as well as making them more capable of taking the new skills from the intervention into use. Another pathway, suggested by Sandler, Schroenfelder, Wolchik, and MacKinnon (2011, p. 17) could be that "program-induced improvements in parenting set off a cascade of effects involving improvements in youth behavior problems, which then leads to reductions in parental depression, which further improves parenting and leads to long-term effects on youth problem behaviors". This is an interesting hypothesis which should be tested in further research efforts.

A total of 11.4% of the caregivers reported being victims of intimate partner violence, and 6.3% were perpetrators of such violence. There was a reduction in victimisation of intimate partner violence in the intervention groups, and the most effective intervention was CA+ICDP+VC, which is in line with the combined intervention being most effective for severe forms of child violence. Intimate partner violence has a tremendous impact both on the caregiver targeted by the violence as well as children witnessing such violence (Sternberg, Baradaran, Abbott, Lamb, & Guteran, 2006). Thirty-five percent of women worldwide are victims of violence, of whom 30 percent are partner related (World Health Organization, 2013). Recent research suggest that exposure to intimate partner violence have even more severe impact on children´s school attendance and performance than child maltreatment, and the authors argue that this might be due to a lack of interventions for these children (Kiesel, Piescher, & Edleson, 2016). The n for victimization of violence was low, and nobody reported sexual abuse, which might be due to stigma related to sexual violence, implying that we need to interpret these results with caution. Relatively few participants reported being perpetrator of intimate partner violence, which may be due to underreporting or mirror that the sample included few men. Mothers and fathers were included in the study at the same extent, and the gender differences might therefore represent the gender proportion at the centers. Similar studies generally do not

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intend to include fathers at the same extent as mothers (Knerr et al., 2013), which might be important to support high-quality involvement by fathers, which has shown to have a positive effect on children´s development independent of involvement by mothers (Flouri & Buchanan, 2004), as well as related to reduced harsh discipline (Reid, Webster-Stratton, & Hammond, 2003).

Predictors of violent discipline in terms of psychological aggression or severe or very severe physical assaults unemployment, victim of intimate partner violence, and community violence. Caregivers who used psychological aggression were also more likely to experience higher symptoms of mental health problems, which again was associated with being female and victim of intimate partner violence. Predictors of victimisation of intimate violence included community violence, mental health problems, and low income, whereas the only predictor of perpetration of intimate partner violence was low individual income. These findings are in line with the cumulative risk hypothesis stating that risk factors increase the probability of experiencing more risks and adversities (O´Connell, Boat, & Warner, 1994).

A strength of the current study is that it is conducted in a hard-to-reach context with a hard-to-reach population. It is generally both a methodological (regarding generalization) and ethical (regarding whether the most effective programmes are provided) problem that few research studies of preventive programmes are conducted in the most vulnerable and unstable parts of the world. Chocó is a high-risk setting and people from the outside are advised not to visit due to high levels of community violence. During initial meetings in Chocó in November 2012 the "FARC, issued a transportation ban (…) that means anyone caught traveling on the roads or rivers in Chocó are considered military targets" (Globalpost, 2012). During data collection, researchers also witnessed bombs and killings in the neighbourhood building as well as several difficulties due to the unstable situation in the region, such as strikes and Internet breakdowns.

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These difficulties influenced the data collection and underscore the difficulties of conducting research in high conflict areas. This was also highlighted in a newly published paper by Khatib, Giacman, Khammash, and Yusuf (2017), who points to the standardization of data collection as one of the main challenges when conducting research in an unstable context with few resources. Limitation of the study is first and foremost the exclusion of participants at follow-up due to the difficulties of standardizing the data collection. The final sample included only caregivers who had attended the full programme and responded to the questionnaire at baseline and follow-up. Community violence exposure was significantly associated with not being present at the follow-up assessment. In all cases except from three there were external reasons why the caregivers were excluded, such as caregivers sending another family member. It is possible that participants lost at follow-up moved away from the study site, or became injured or ill. The consequence of the exclusion of these participants was a low N which represents a risk for bias. Another limitation is lack of fidelity evaluation. In a study evaluating a parenting programme, the effect on parenting practices improved significantly more when the program was implemented with high level of fidelity (Forgatch, Patterson, & DeGarmo, 2005).

Conclusion

In deprived settings, with high unemployment and high levels of crime and violence, parenting interventions might have a specific role. Results showed that the specific violence component affects caregiver use of violent harsh punishments – especially reducing severe forms. However, traditional ICDP has benefits for reducing milder forms of child violence as well as improving caregiver mental health. As such, the results support a public approach with traditional ICDP to reduce population prevalence of child maltreatment and to improve caregiver´s mental health with an additional violence prevention component to reduce severe types of maltreatment. However more research that includes more than one method (Euser et al, 2015), more participants, and longer-term follow-up is warranted.

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References

Barlow, J., Johnston, I., Kendrick, D., Polnay, L. & Stewart-Brown, S. (2006). Individual and group-based parenting programmes for the treatment of physical child abuse and neglect. *Cochrane Database Systematic Review, 19*(3). doi:10.1002/14651858.CD005463.pub2

Chandan, U. & Richter, L. (2008). *Programmes to strengthen families: Reviewing the evidence from high income countries. Learning Group 1: Strengthening families.* Harvard University, Cambridge, MA: The joint learning initiative on children and AIDS.

Chibanda, D., Verhey, R., Gibson, L. J., … & Abas, M. (2016). Validation of screening tools for depression and anxiety disorders in a primary care population with high HIV prevalence in Zimbabwe. *Journal of Affective Disorders, 198*(1), 50–55.

DANE (2013). *Comunicado de prensa*. (Press statement). Bogotá D.C.: Oficina de Prensa DANE. Retrieved from http://www.dane.gov.co/files/investigaciones/condiciones_vida/pobreza/cp_pobreza_departamentos_2011.pdf

Finkelhor, D. & Lannen, P. (2015). Dilemmas for international mobilization around child abuse and neglect. *Child Abuse & Neglect, 50,*1–8.

Flouri, E., & Buchanan, A. (2004). Early father's and mother's involvement and child´s later educational outcomes. *British Journal of Educational Psychology. 74*(2), 141–153.

Forgatch, M., Patterson G. & DeGarmo D. (2005). Evaluating fidelity: Predictive validity for a measure of competent adherence to the Oregon Model of Parent Management Training. *Behavior Therapy, 36*, 3–13.

Gershoff, E. T. & Grogan-Kaylor, A. (2016). Spanking and child outcomes: Old controversies and new meta-analysis. *Journal of Family Psychology, 30*(4), 453–469.

Globalpost (2012). *Can Colombia end its decades-old guerrilla war?* Retrieved from http://www.globalpost.com/dispatch/news/regions/americas/colom bia/121114/guerrilla-war-Farc-peace-talks-cuba-quibdo-choco- violence

For Peer Review

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Guedes, A., Bott, S., Garcia-Moreno, C. & Colombini, M. (2016). Bridging the gaps: a global review of intersections of violence against women and violence against children. *Global Health Action, 20*(9).

Hillis, S. D., Mercy, J. A. & Saul, J. R. (2017). The enduring impact of violence against children. *Journal of Health Psychology, 22*(4), 393–405.

Holt, S., Buckley, H. & Whelan, S. (2008). The impact of exposure to domestic violence on children and young people: a review of the literature. *Child Abuse & Neglect, 32*(8), 797–810.

Hundeide, K. (2010). *The Essence of Human Care: an introduction to the ICDP programme*. ICDP publication.

ICDP (2017). *ICDP organization*. Retrieved from http://www.icdp.info/who-we-are

IICRD, CINDE, & ICDP (2012). *Using Child Rights to Protect Young Children from Violence: Designing a Community Protection Plan*. Retrieved from icdp.info/var/uploaded/2014/12/2014- 12-09_04-51-57_cpecv_training_manual.pdf

Kiesel, L., Piescher, K. & Edleson, J. L. (2016). The relationship between child maltreatment, exposure to intimate partner violence and academic achievement. *Journal of Public Child Welfare*, doi:10.1080/15548732.2016.1209150

Khatib, R., Giacaman, R., Khammash, U., & Yusuf, S. (2017). Challenges to conducting epiodemiology research in chronic conflict areas: examples from PURE-Palestine. *Conflict & Health, 10*(33), doi: 10.1186/s13031-016-0101-x

Klevens, J. & Whitaker, D. J. (2007). Primary prevention of child physical abuse and neglect: Gaps and promising directions. *Child Maltreatment, 12*(4), 364–377. doi:10.1177/1077559507305995

Knerr, W., Gardner, F. & Cluver, L. (2013). Improving positive parenting skills and reducing harsh and abusive parenting in low- and middle-income countries: A systematic review. *Prevention Science, 14*, 352–363.

For Peer Review

Measure, D. H. S. (2010). *Encueastra nacional de demografia y salud* [National survey of demographics and health]. Bogota, Colombia: Para-familia.

Mejía, A. M. O. (2013). *Socioeconomic determinants of early childhood health in Colombia: exploring the role of context*. Barcelona: Universitat de Barcelona.

Mejia, A., Calam, R. & Sanders, M. R. (2012). A review of parenting programs in developing countries: Opportunities and challenges for preventing emotional and behavioural difficulties in children. *Clinical Child and Family Psychology Review, 15*, 163–175.

Moestue, H., Moestue, L. & Muggah, R. (2013). *Youth violence prevention in Latin America and the Caribbean: A scoping review of the evidence. Noref – Norwegian Peace building Resources centre*. Report August 2013. Retrieved from http://resourcecentre.savethechildren.se/sites/default/files/documents/muggah-moestue-igarape_noref_youth-violence-prevention-in-la-and-caribbean_aug-2013_final.pdf

ICDP (2017). *ICDP – who we are*. Retrieved from http://www.icdp.info/who-we-are

O'Connell, M. E., Boat, T. & Warner, K. E. (1994). *Preventing mental, emotional and behavioral disorders among young people. Progress and possibilities*. Washington DC: National Research Council and Institute of Medicine.

Patel, V., Simunyu, E., Gwanzura, F., Lewis, G., & Mann, A. (1997). The Shona Symptom Questionnaire: The development of an indigenous measure of common mental disorders in Harare. *Acta Psychiatrica Scandinavica, 95*(6), 469–475.

Pinderhughes, E. E., Dodge, K. A., Zelli, A., Bates, J. E. & Pettit, G. S. (2000). Discipline responses: Influences of parents' socioeconomic status, ethnicity, beliefs about parenting, stress, and cognitive-emotional processes. *Journal of Family Psychology, 14*(3), 380–400. doi:10.1037//0893-3200.14.3.380

Política Pública (2014). *Política Pública del departamento de Chocó para la primera infancia, infancia y adolescencia con enfoque de derechos centrado en la familia. "Unidos por la ninez del Chocó*". [Public Policy of the department of Chocó for childhood and

For Peer Review

adolescence with a rights-centered focus on the family. "United for the children of Chocó]. Retrieved from http://Chocó.gov.co/apc-aa-files/65336362323263376161386563666633/politica-primera-infancia-web.pdf

Regalado, M., Aareen, H., Inkelas, M., Wissow, L. S., & Halfon, N. (2004). Parents' discipline of young children: Results from the National Survey of Early Childhood Health. *Pediatrics, 113*, 1952–1958.

Reid, M., Webster-Stratton, C., & Hammond, M. (2003). Follow-up of children who received the Incredible Years intervention for Oppositional-Defiant Disorder: Maintenance and prediction of 2-year outcome. *Behavior Therapy. 34*(4), 471–491.

Sandler, I., Schoenfielder, E., Wolchik, S., & MacKinnon, D. (2011). Long-term impact of prevention programs to promote effective parenting: Lasting effects but uncertain processes. *Annual Review of Psychology, 62*, 299–329.

Skar, A-M. S., Sherr, L., & von Tetzchner, S. (2012). *Evaluation Questionnaire*. Retrieved from http://www.icdp.info

Skar, A-M. S., Sherr, L., Clucas, C., & von Tetzchner, S. (2014). Follow-up effects of the International Child Development Programme on caregivers in Mozambique. *Infants & Young Children, 27*(2), 120–135.

Sherin, K. M., Sinacore, J. M., Li, X. Q., Zitter, R. E., & Shakil, A. (1998). HITS: a short domestic violence screening took for use in a family practice setting. *Family Medicine, 30*(7), 508–512

Simons, D. A. & Wurtele, S. K. (2010). Relationships between parents' use of corporal punishment and their children's endorsement of spanking and hitting other children. *Child Abuse & Neglect, 34*(9), 639–646. doi:10.1016/j.chiabu,2010.01.012

Straus, M. A., Hamby, S. L., Finkelhor, D., Moore, D. W. & Runyan, D. (1998). Identification of child maltreatment with the Parent-Child Conflict Tactics Scales: Development and

For Peer Review

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psychometric data for a national sample of American parents. *Child Abuse & Neglect, 22*(4), 249–270.

Sternberg, K. J., Baradaran, L. P., Abbott, C. B., Lamb, M. E., & Guterman, E. (2006). Type of violence, age, and gender differences in the effects of family violence on children's behavior problems: A mega-analysis. *Developmental Review, 26*, 89–112.

Tolan, P. H., & Gorman-Smith, D. (1991). *Chicago youth development study stress and coping interview manual*. Chicago: Institute for Juvenile Research, University of Illinois at Chicago

UNICEF (2011). *Child protection from violence, exploitation and abuse. A statistical snapshot, June 2011*. Retrieved from http://www.childinfo.org/files/ChildProtection__from_violence_ex ploitation_abuse.pdf

Walker, S. P., Wachs, T. D., Gardner, J. M. … & the International Child Development Steering Group (2007). Child development in developing countries 2. Child development: risk factors for adverse outcomes in developing countries. *Lancet, 369*(13), 145–157.

Widom, C. S., Czaja, S. & Dutton, M. A. (2014). Child abuse and neglect and intimate partner violence victimization and perpetration: a prospective investigation. *Child Abuse & Neglect, 38*(4), 650–663.

Wolfe, D. A., Wekerle, C., Scott, K., Straatman, A. L. & Grasley, C. (2004). Predicting abuse in adolescent dating relationships over 1 year: The role of child maltreatment and trauma. *Journal of Abnormal Psychology, 113*(3), 406–415. doi:10.1037/0021-843x.113.3.406

World Health Organization (2013). *Global and regional estimates of violence against women.* Retrieved from http://www.who.int/reproductivehealth/publications/violence/9789 241564625/en/

World Health Organization (2014). *Child maltreatment*. Retrieved from http://www.who.int/topics/child_abuse/en/

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Table 1. *Demographic and socio-economic characteristics of caregivers across study groups*

	Total (N=176)	**CA+ICDP (N=59)**	**CA+ICDP+VC (N=66)**	**CA (comparison) (N=51)**	**Between group comparison**
Age (years)	31.89 (8.45)	31.07 (8.63)	32.84 (9.18)	31.63 (7.33)	F(2,167) = 0.70, *p*=.50
Gender					
Female	134 (78.5%)	42 (72.4%)	51 (78.5%)	41 (83.7%)	X^2 = 1.98 (8), *p*=.37
Male	38 (21.5%)	16 (27.6%)	14 (21.5%)	8 (16.3%)	
Marital status					
Married	22 (12.8%)	5 (8.6%)	9 (13.8%)	8 (16.3%)	X^2 = 7.69 (8), *p*=.47
Living with partner	89 (50.6%)	30 (51.7%)	36 (55.4%)	23 (46.9%)	
Separated	7 (4.0%)	1 (1.7%)	3 (4.6%)	3 (6.1%)	
Widowed	2 (1.0%)	2 (3.4%)	0	0	
Single	52 (29.5%)	20 (24.5%)	17 (26.2%)	15 (30.6%)	
Occupation					
Working (full or part time)	93 (52.8%)	32 (55.2%)	39 (60%)	22 (44.9%)	X^2 = 4.45 (6), *p*=.62
Not working	35 (19.9%)	13 (22.4%)	9 (13.8%)	13 (26.5%)	
Studying	16 (9.1%)	4 (6.9%)	6 (9.2%)	6 (12.2%)	
Working from home	28 (15.9%)	9 (15.5%)	11 (16.9%)	8 (16.3%)	
Education (last degree achieved)					
No studies	1 (0.6%)	1 (1.7%)	0	0	X^2 = 6.75 (10), *p*=.75
Primary school	9 (5.1%)	3 (5.2%)	2 (3.1%)	4 (8.2%)	
Secondary school	57 (32.4%)	17 (29.3%)	22 (33.8%)	18 (36.7%)	
Technical studies	22 (12.5%)	5 (8.6%)	10 (15.4%)	7 (14.32%)	
University	81 (46.0%)	31 (53.4%)	30 (46.2%)	20 (40.8%)	
Postgraduate	2 (1.1%)	1 (1.7%)	1 (1.5%)	0	
N children in the family	1.80 (1.04)	1.78 (0.94)	1.80 (1.15)	1.82 (1.01)	F(2,169) = 0.02, *p*=.98
N people in the family	4.84 (2.10)	4.95 (1.99)	4.78 (1.72)	4.78 (2.49)	F(2,169) = 1.13, *p*=.88
Individual monthly income					
<100.000 COP (<33 USD)	71 (40.3%)	23 (39.7%)	25 (38.5%)	23 (46.9%)	X^2 = 0.92 (2), *p*=.63
100.001-500.000 (33-166 USD)	101 (57.4%)	35 (60.3%)	40 (61.5%)	26 (53.1%)	
Family monthly income					
<600.000 COP (< 197 USD)	85 (48.3%)	30 (51.7%)	29 (44.6%)	26 (53.1%)	X^2 = 0.98 (2), *p*=.61
600.001-100.000.000+ COP (197-329+ USD)	87 (49.4%)	28 (48.3%)	36 (55.4%)	23 (46.9%)	

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Table 2. *Caregiver experiences of community and domestic violence within the past year for the overall sample at baseline*

Scales and items	*Prevalence*
Community violence	**83 (47.2%)**
Seen someone else beaten up	49 (27.8%)
Family member robbed or attacked	39 (22.2%)
Family member or friend killed	25 (14.2%)
Seen someone shot or killed	13 (7.4%)
Witnessed other violent crimes	12(6.8%)
Seen family member beaten up	7 (4.0%)
Family's property was wrecked or damaged	10 (5.7%)
Victim of violent crime	9 (5.1%)
Victim of nonviolent crime	7 (4.0%)
Victim of sexual assault	0
Intimate partner violence (victim)	**20 (11.4%)**
Insult you or talk down to you	15 (8.5%)
Scream or curse at you	10 (5.7%)
Threaten you with harm	5 (2.8%)
Physically hurt you	8 (4.5%)
Abused you sexually	0
Intimate partner violence (perpetrator)	**11 (6.3%)**
Insult you or talk down to your partner	9 (5.1%)
Scream or curse at your partner	3 (1.7%)
Threaten your partner with harm	1 (0.6%)
Physically hurt your partner	1 (0.6%)
Abused your partner sexually	0

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Table 3. *Prevalence rates for CTSPC scales and items for the overall sample at baseline*

Scales and items	*Prevalence*
Nonviolent child discipline	**173 (98.3%)**
Explained why something is wrong	159 (90.3%)
Took away privileges or grounded him/her	132 (75.0%)
Put him/her in “time out” (or sent to his/her room)	77 (43.8%)
Gave him/her something else to do instead of what he/she was doing wrong	54 (30.7%)
Violent child discipline: Physical assault	**172 (97.7%)**
Hit him/her on the bottom with a belt, hairbrush, a stick or some other hard object	124 (70.5%)
Hit him/her on some other part of the body besides the bottom with hard object	108 (61.4%)
Spanked him/her on the bottom with your bare hand	111 (63.1%)
Hit him/her with a fist or kicked him/her hard	86 (48.9%)
Threatened him/her with a knife or gun	78 (44.3%)
Pinched him/her	64 (36.4%)
Shook him/her	39 (22.2%)
Grabbed him/her around the neck and choked him/her	38 (21.6%)
Threw or knocked him/her down	10 (5.7%)
Slapped him/her on the hand, arm or leg	11 (6.3%)
Slapped him/her on the face or head or ears	2 (1.1%)
Burned or scalded him/her on purpose	3 (1.7%)
Beat him/her up, that is you hit him/her over and over as hard as you could	0
Violent child discipline: Psychological aggression	**63 (35.8%)**
Swore or cursed at him/her	41 (23.3%)
Shouted, yelled, or screamed at him/her	35 (19.9%)
Threatened to spank or hit him/her but did not actually do	4 (2.3%)
Said you would send him/her away or kick him/her out of the house	4 (2.3%)
Called him/her dumb or lazy or some other name like that	1 (0.6%)

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Table 4. *Outcomes at baseline and differences by group*

	Total (N=176)	CA+ICDP (N=59)	CA+ICDP+VC (N=66)	CA (comparison) (N=51)	F or X^2 (df), p value
Community violence	83 (47.2%)	28 (48.3%)	37 (56.9%)	18 (36.7%)	4.56 (2), *p*=.10
Intimate partner violence (victim)	20 (11.4%)	7 (12.1%)	7 (10.8%)	6 (12.2%)	0.08 (2), *p*=.96
Intimate partner violence (perpetrator)	11 (6.3%)	4 (6.9%)	5 (7.7%)	2 (4.1%)	0.65 (2), *p*=.72
Nonviolent child discipline	173 (100%)	59 (100%)	65 (100%)	49 (100%)	
Violent child discipline: physical assault	172 (97.7%)	58 (98.3%)	65 (100%)	49 (100%)	1.94 (2), *p*=.38
Ordinary physical assault (corporal punishment)	171 (98.8%)	58 (98.3%)	65 (100%)	48 (98.8%)	1.25 (2), *p*=.54
Severe physical assault (abuse)	127 (73.8%)	46 (79.3%)	45 (69.2%)	36 (73.5%)	1.62 (2), *p*=.45
Very severe physical assault	106 (61.6%)	43 (74.1%)	38 (58.5%)	25 (51.0%)	6.45 (2), *p*=.04
Violent child discipline: psychological aggression	63 (35.8%)	22 (37.9%)	28 (43.1%)	13 (26.5%)	3.36 (2), *p*=.17
Ordinary psychological aggression	38 (22.1%)	11 (19%)	22 (33.8%)	5 (10.2%)	9.57 (2), *p*=.01
Severe psychological aggression	43 (25%)	15 (25.9%)	17 (26.2%)	11 (22.413%)	0.24(2), *p*=.89
Risk of depression/ anxiety (SSQ > clinical cut off)	33 (19.2%)	13 (22.4%)	11 (16.9%)	9 (18.4%)	0.63 (2), *p*=.73

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Table 5. *Reported violence experiences: differences before and after intervention*

	Before intervention				**6 months after intervention**			
	Total (N=176)	**CA+ICDP (N=59)**	**CA+ICDP+VC (N=66)**	**CA (comparison) (N=51)**	**Total (N=176)**	**CA+ICDP (N=59)**	**CA+ICDP+VC (N=66)**	**CA (comparison) (N=51)**
Partner violence (victim)	20 (11.4%)	7 (11.9%)	7 (10.6%)	6 (11.8%)	6 (3.4%)	2 (3.4%)	1 (1.5%)	3 (5.9%)
Partner violence (perpetrator)	11 (6.3%)	4 (6.8%)	5 (7.6%)	2 (3.9%)	7 (4.0%)	3 (5.1%)	1 (1.5%)	3 (5.9%)
Violent child discipline (physical)	172 (99.4%)	58 (98.3%)	65 (98.5%)	49 (96.1%)	108 (61.4%)	34 (57.6%)	41 (62.1%)	33 (64.7%)
Mild	171 (97.7%)	58 (98.3%)	65 (98.5%)	48 (94.1%)	106 (60.2%)	34 (57.6%)	40 (60.6%)	32 (62.7%)
Severe	127 (72.2%)	46 (77.9%)	45 (68.2%)	36 (70.6%)	28 (15.9%)	8 (13.6%)	10 (15.2%)	10 (19.6%)
Very severe	133 (75.6%)	48 (81.3%)	48 (72.7%)	37 (72.5%)	7 (4.0%)	2 (3.4%)	1 (1.5%)	4 (7.8%)
Violent child discipline (psychol)	63 (35.8%)	22 (37.3%)	28 (42.4%)	13 (25.5%)	117 (66.5%)	39 (66.1%)	43 (65.2%)	35 (68.6%)
Mild	38 (21.6%)	11 (18.6%)	22 (33.3%)	5 (9.8%)	115 (65.3%)	39 (66.1%)	41 (62.1%)	35 (68.6%)
Severe	43 (24.4%)	15 (25.4%)	17 (25.8%)	11 (21.6%)	20 (11.4%)	8 (13.6%)	8 (12.1%)	4 (7.8%)
Nonviolent child discipline	173 (98.3%)	59 (100%)	65 (98.5%)	49 (96.1%)	166 (94.3%)	56 (94.9%)	63 (95.4%)	47 (92.2%)

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Figure 1. *Percentage reduction of mild, severe, and very severe types of physical assault after intervention*

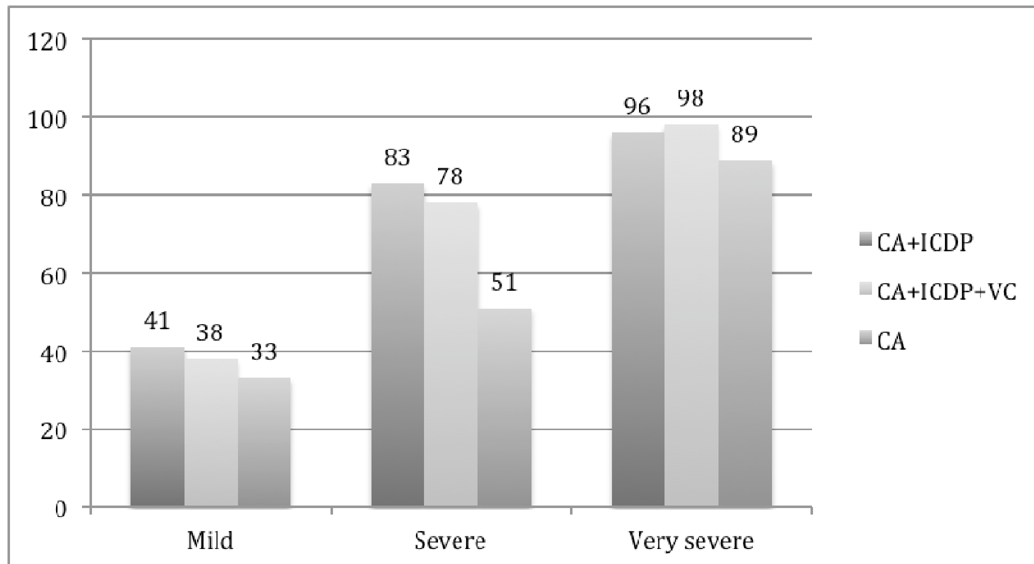

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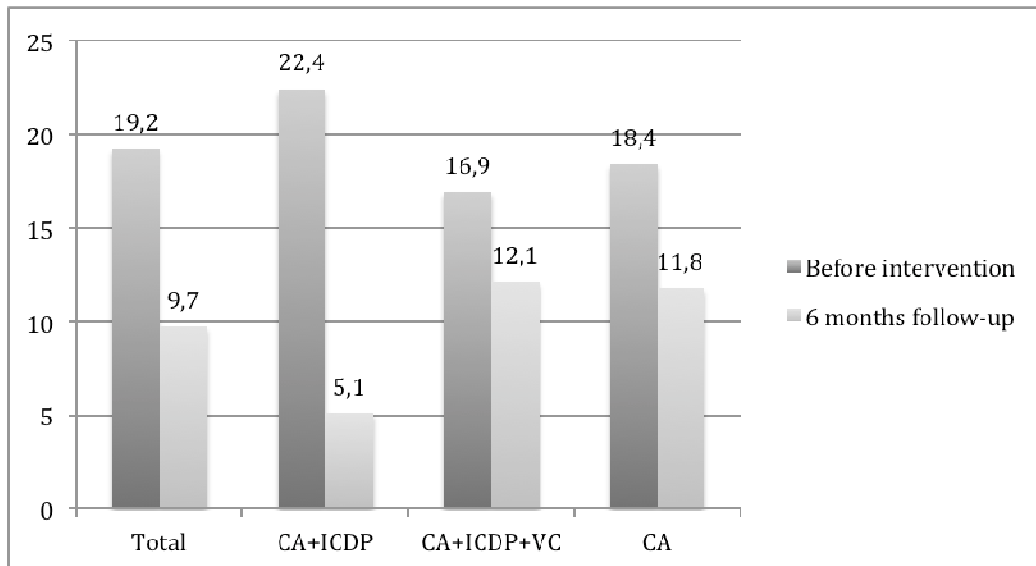
Figure 2. *Percentage of caregivers scoring above clinical cut off for mental health problems over time across conditions*



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