Research on Social Work Practice

Developing a parenting programme to prevent Child-Abuse in South-Africa: Pre-Post Pilot Study

Journal:	*Research on Social Work Practice*
Manuscript ID	RSWP-15-0122
Manuscript Type:	Research Articles
Keywords:	Child Abuse < Field of Practice, Violence, Abuse Prevention, Parenting Stress, Parenting , Psycho-Social Aspects, South Africa

Abstract

Background: Violence against children increases in adolescence, but there is a research and practice gap in evidence-based child abuse prevention for the adolescent years. A pilot programme for low-resource settings was developed in collaboration with NGOs, government and academics in South Africa, using evidence-based principles.

Methods: This study used a pre-post design to test initial effects of a 10-session parenting programme with 60 participants (30 caregiver-adolescent dyads) in high-poverty rural South Africa. Areas requiring further testing and adaptation were also identified.

Results: Pre-post findings show significant reductions in child abuse, violent discipline, adolescent problem behaviour, poor supervision and acceptance of violence. Improvements were seen in positive and involved parenting, and parent and adolescent social support.

Conclusions: There is potential to reduce child abuse, improve parenting, and reduce adolescent problem behaviour in rural South Africa through parenting programmes. Further development is required to improve skills such as non-violent and consistent discipline.

Key Words: Child Abuse, Violence, Abuse Prevention, Parenting Stress, Parenting, Psycho-Social Aspects, South Africa

Introduction

Child abuse rates are disproportionately elevated in sub-Saharan Africa (Akmatov, 2011) and are exacerbated by family-level stressors such as poverty and HIV/AIDS (Meinck et al., 2015). Adolescence is a particularly high-risk stage for abuse, with rates of violence victimisation increasing not only within the home, but also in community settings (Finkelhor et al., 2009, Finkelhor et al., 2013). Evidence shows severe, current and long-term adverse effects of adolescent abuse on physical and mental health, education, employment, and sexual health (Thornberry et al., 2001, MacMillan and Hagan, 2004). Consequences of adolescent abuse may be particularly acute in sub-Saharan Africa, with increased risks of homicide and HIV-infection (Richter et al., 2013, Jewkes et al., 2006).

Worldwide, less than 10% of abused children access any child protection services, with even lower access to effective preventative programmes (Finkelhor et al., 2011). While this is true globally, there remains a particularly large research and treatment gap between developed and developing countries. A recent systematic review of reviews identified that, among current interventions, behavioural parenting programmes showed greatest effectiveness in reducing child abuse (Mikton and Butchart, 2009). Notably 99.4% of studies were in high-income countries, and almost no evidence-based programmes focused on adolescents.

Although evidence is drawn largely from high-income countries, a recent systematic review found that these parenting principles transport well across diverse countries, cultures and systems (Gardner et al., 2015). Other factors, however, work against transportability, as many programmes with the strongest evidence-base require qualified professionals (Olds et al., 1997) or have associated costs of purchase, training and materials (Sanders, 2011, Webster-Stratton and Reid, 2010), thus reducing opportunities for large-scale implementation in low and middle income countries (LMIC). A systematic review of parenting programmes in LMIC found a small number of programmes showing improvements in parental knowledge of child development and in parent-child communication, but to date only three studies (in Chile, Turkey and Iran) have investigated effects on abuse or harsh parenting, all with infants or children aged under 6 (Knerr et al., 2013). For abuse of adolescents, evidence of effective preventative interventions is rare even in high-income countries.

There is a clear need for evidence-based child abuse prevention interventions that are scalable and affordable in LMIC. In response, an international collaboration has been established to develop and rigorously test these. Partners include the World Health Organisation, UNICEF and academics from the global South and North. Initial testing in South Africa, with government and NGO collaboration, will be followed by multi-country adaptation and evaluation. Programmes focus on three distinct developmental stages: infancy, younger children, and older children/adolescents; and utilize principles demonstrated in systematic reviews as common to effective child abuse prevention programmes, such as positive parenting and collaborative learning approaches (Barlow et al., 2006). Interventions are explicitly designed for low-literacy populations, to be implemented by non-professional staff, with no requirements for electricity or equipment such as videos, and are freely accessible under creative commons licenses (Commons, 2013).

Development of the adolescent programme follows the UK Medical Research Council's framework for designing and evaluating complex social interventions (Craig et al., 2008). Phase 1 included the review of existing evidence and community participatory research, leading to Phase 2: pilot studies of programme acceptability, feasibility and effects on primary and secondary outcomes (Campbell et al., 2007). This paper reports outcomes from the first pilot pre-post test of

the programme, with the explicit aim of informing further adaptation and improvement of intervention components. Subsequent to this will be pre-post testing of a second version of the programme and a third stage of adaptation and improvement, leading to a large-scale randomized controlled trial. This iterative approach aims to maximize evidence-based adaptation of the core parenting principles to the needs of vulnerable families in South Africa (Figure 1).

Methods

Participants (n=60) were 30 adolescent-caregiver dyads (adolescents aged 10-17)[1]. All lived in two high-poverty, deep rural communities of South Africa's Eastern Cape province, and were identified as in need of parenting support by a local community-based organization. No eligibility exclusions were made regarding factors such as parental literacy, prior history of mental health, domestic violence, or adolescent characteristics.

A local partner NGO 'the Keiskamma Trust' provided support services to orphaned and vulnerable children. Parent-adolescent dyads were nominated and invited to participate in a 10-session, five-week parenting support programme, the Sinovuyo [2] Caring Families Teen Programme. Following other parenting programmes and given high levels of stigma around child abuse, the intervention was presented in the community as aimed at reducing parenting stress and improving adolescent outcomes (Parra-Cardona et al., 2009). Inclusion criteria used was: 1) caregivers that had expressed challenges with their adolescents 2. adolescents with behavioural problems or those with a suspected history of abuse. There were no exclusions for severity of circumstances, nor for mental or physical health problems.

Procedures: The study used a pre-post design with standardized questionnaires. Ethical protocols were approved by the Universities of Cape Town and Oxford. Written informed consent was obtained from all participants and, given low literacy levels, consent procedures were also read aloud. Parents and adolescents were interviewed face-to-face, separately and in private, by interviewers trained in working with vulnerable families, prior to and in the two weeks after completing the programme. No incentives were offered, apart from certificates of participation. Confidentiality was maintained, except if participants were at risk of significant harm or requested assistance. If participants reported severe abuse, rape, or other significant harm, immediate referrals were made to child protection, health and HIV/AIDS services, with follow-up support (n=4). All research materials were translated into Xhosa and checked by back-translation.

Primary outcome measures: Violent/abusive discipline was measured using the International Society for Prevention of Child Abuse and Neglect (IPSCAN) child and parent version of the International Child Abuse Screening Tool (ICAST-C and ICAST-P) (26 items). This has been field tested in eight countries, reviewed internationally using the Delphi process and successfully used in developing countries (Runyan et al., 2009, Zolotor et al., 2009). Reliability (internal consistency) was α=.81 parent report (ICAST-P) and α=.74 adolescent report (ICAST-C).

Adolescent behaviour problems were measured using the rule-breaking (17 items) and aggressive behaviour (18 items) scales of the Child Behaviour Checklist (Achenbach, 1991) (child and parent versions), with established reliability and validity in multiple countries (Achenbach, 1991, Weisz et al., 1993). Reliability for rule-breaking behaviour was α=.82 parent report and α=.35

[1] Given high rates of caregiving by non-biological parents in South Africa, henceforth 'parent' refers to biological and non-biological primary caregivers of children.
[2] "Sinovuyo" is a Xhosa word meaning "we have happiness or joy".

adolescent report. Reliability for aggressive behaviour was α=.85 parent report and α=.54 adolescent report.

Secondary/linked outcome measures: Positive parenting (6 items, α=.42 adolescent; α=.74 parent); parent involvement (10 items, α=.47 adolescent; α=.51 parent), and poor supervision (10 items, α=.62 adolescent; α=.70 parent) were measured using the relevant child and parent subscales of the widely used and well-validated Alabama Parenting Questionnaire (Frick, 1991), used in prior studies in South Africa (Lachman et al., 2013) (32 items, total scale reliability α=.69 parent and adolescent report. Attitudes to gender and sexual violence were measured using the Gender Equitable Men scale (GEM, 14 items), used in sub-Saharan Africa with both genders (Pulerwitz and G, 2008). Reliability was α=.43 adolescent report and α=. 43 parent report.

Parent-child communication was measured using the child and parent versions of the Child–Parent Communication Apprehension Scale for use with Young Adults (C–PCA, YA) (Lucchetti et al., 2002) (12 items). Reliability for parent report was α=.31 and for adolescent report was α=.16. Non-violent discipline was measured using an additional scale of the ICAST-P parent report (5 items, reliability α=.63) and a subscale of the Alabama Parenting Questionnaire for adolescent report (7 items, reliability α=.22). Inconsistent discipline was measured using the Alabama Parenting Questionnaire (6 items, α=.18 adolescent, α=.22 parent). Social support was measured using the Medical Outcome Study Social Support Survey (MOS-SSS) (Sherbourne and Stewart, 1991), comprising subscales of emotional, tangible and affectionate support and positive social interaction (19 items). Reliability of the parent scale was α=.93, and adolescent scale α =.95.

Socio-demographic measures used items modelled on the South African census (Statistics South Africa, 2001), and included parent and child home language, age, gender, level of education, parent marital status, employment status, nationality and source of income, relationship of child to caregiver, school attendance, household size, formal/informal housing and household structure. Poverty was measured using an index of access to the eight highest socially-perceived necessities for children, corroborated by >80% of the population in the nationally-representative SA Social Attitudes Survey (Pillay et al., 2006) Reliability for adult report was α=.96 and for adolescent report was α=.59.

As an additional measure, *focus groups* were held with all participants after programme completion. Guided discussions included parent and adolescent suggestions for improvement in the next adaptation stage.

Data analysis was conducted using SPSS 20.0. Alpha reliability coefficients were calculated for each scale and sub-scale. To examine the effects of the intervention on adolescent and parent outcome measures, a series of paired t-tests comparing baseline and post-test scores were employed (Field, 2009). All participants were re-interviewed at follow-up, regardless of attendance levels, and analyses used an intention to treat approach, whereby outcome analyses include all participants present at the time of pre-intervention regardless of extent of programme attendance, completion or adherence to the programme protocol. As all 60 participants were included in the follow-up, no imputation was required.

Parenting programme: The pilot 'Sinovuyo Caring Families Teen Programme' was developed in collaboration with South African NGOs and government departments. The design used 1) extensive literature review, 2) community consultation and 3) expert consultations with developers of existing adolescent programmes. Manual development was led by a national NGO, Clowns Without Borders South Africa, together with the Universities of Oxford and Cape Town,

and in consultation with NGOs including the World Health Organisation, UNICEF South Africa, the Regional Psychosocial Support Initiative and the South African national government departments of Social Development and Basic Education. Community consultations were undertaken with parents and with an advisory group of twenty adolescents from low-income South African communities.

The programme uses social learning and parent management training principles, with group-based parent, adolescent, and joint parent-adolescent sessions (Ward et al., 2001). It utilizes a collaborative learning approach, with activity-based learning, role-play and home practice (Webster-Stratton, 1998). Sessions include establishing special time for parents and adolescents, specific and immediate praise, dealing with stress and anger, establishing rules and responsibilities and responding to crises (Figure 2). Unlike parenting programmes for younger children that only include parents, evidence from high-income countries suggests that including both adolescents and parents is necessary for this developmental stage, with a combination of joint sessions where skills (such as problem-solving) can be practiced together, and separate sessions where developmentally-appropriate responses (such as addressing anger) can be established (Rotheram-Borus et al., 2004).

This study aimed to test evidence-based programme effects in real-world conditions relevant to sub-Saharan African contexts. Therefore, the manualised pilot programme was implemented in South Africa's poorest province, in two very low-income rural communities with limited infrastructure. Adaptations included using role-plays and acted-out scenarios instead of video materials commonly used in parenting programmes in high-income countries. Implementation took place in Xhosa, the local language.

Two sets of parenting and adolescent groups were held in two rural villages. When available, groups took place in local early childhood centres, which had no electricity or running water. On days in which these were used for political or community meetings, groups took place in community huts or under trees. A simple group meal was provided in each session. Sessions were led by lay community workers from Clowns without Borders South Africa, with a local community-based NGO the Keiskamma Trust. Staff had no formal qualifications, but were experienced in conducting parenting programmes and were given a week's intensive training on the programme, including collaborative learning techniques, modelling praise, and problem-solving skills.

Results

Demographics

All 30 dyads completed pre- and post-test interviews. Rates of attendance were high to acceptable, at 86% for adolescents and 63% for parents. All participants were South African and Xhosa-speaking. Half reported past-week food insecurity and 40% lived in informal (shack) housing. Parents were aged 30-79 (mean age 46), 97% female, half were married, 87% unemployed, 90% had not completed secondary school and 47% were chronically ill. Only 40% were the biological parent of the adolescent, reflecting high rates of orphaning and migration. Other caregivers were grandmothers (23%) aunts (17%), other relatives (13%) and siblings (7%). Adolescents were aged 12-16 (mean age 13), half female, and all were enrolled in school. 60% were maternally or paternally orphaned, half of these due to HIV/AIDS. (Table 1)

Primary outcomes

Violent/abusive discipline: Results showed reductions in the ICAST scale of child abuse and violent discipline for both parent (t=3.43, df =10, p=.006) and adolescent report (t=2.39, df =29, p=.024). *Adolescent rule-breaking behaviour* using the CBCL parent report showed reductions in adolescent rule-breaking behaviour (t=3.21 df 28, p=.003). Adolescent report showed no differences, but very low reported rates at both pre- and post-test. *Adolescent aggressive behaviour* using the CBCL parent report showed reductions in adolescent aggressive behaviour (t=3.07, df 28, p=.005). Adolescent report showed no differences, but very low reported rates at both pre- and post-test. (Table 2)

Secondary/linked outcomes

Involved parenting using the APQ showed improvements in both parent (t=-4.92, df 28, p<.001) and adolescent report (t=-2.697, df 25 p=.012). *Positive parenting* also showed improvements in both parent (t=-3.17, df 28, p=.004) and adolescent report (t=-2.38, df 27, p=.025). *Poor supervision* showed reductions in both parent (t=3.86, df 28 p=.001) and adolescent report (t=2.98, df 24, p=.006). *Acceptance of gender and sexual violence* using the GEM scale showed reductions amongst both parents (t=3.39, df 29 p=.002) and adolescents (t=2.18, df 29, p=.038) in acceptance of intimate partner violence, traditional gender roles and sexual violence. (Table 2)

Non-violent discipline using the parent report scale from the ICAST showed no differences between pre- and post-test mean scores. Adolescent report using the Alabama Parenting Questionnaire (APQ) subscale also showed no differences in pre- and post-test scores. *Inconsistent discipline* showed no changes between pre- and post-test mean scores in either adolescent or parent report. *Parent-adolescent communication* using the C–PCA, YA showed no changes between pre- and post-test mean scores in parent or adolescent report. *Parent access to social support* using the parent MOSS showed increases in perceived access to social support (t=-3.69, df 28, p=.001). Likewise, *adolescent access to social support* also showed increases in perceived access to social support (t=-5.19, df 28, p<.001). (Table 2)

Participant input

Focus groups provided participant suggestions for further adaptation stages. Overall, both parents and adolescents reported that they found the programme culturally relevant and enjoyable, and that they felt that it had improved intra-family relationships and reduced tension and violence in the home. When asked for suggested improvements, parents expressed a desire to learn specific strategies for non-violent discipline of adolescents. In addition, parent-adolescent dyads expressed practical difficulties spending 'special time' with each other due to heavy time burdens related to living in rural poverty, such as walking several miles daily to fetch water and wood.

Discussion

This study represents the first pilot testing stage in the development of a child abuse prevention programme for adolescents in South Africa. Results from non-controlled studies must always be interpreted with caution, but overall, these initial findings indicate improvements in primary and secondary outcomes, and no iatrogenic effects. The programme was associated with a range of significant improvements in primary and secondary measured outcomes amongst participating families: reduced violent/abusive discipline; reduced adolescent rule-breaking; reduced adolescent aggressive behaviour; reduced poor supervision; improved involved parenting; improved positive parenting; reduced acceptance of gender and sexual violence, and improved

social support for parents and adolescents. This suggests suitability for further development and more rigorous testing. This stage will be followed by further piloting and testing using randomised controlled trial methods.

This study also aimed to indicate aspects of the programme that require further adaptation and development. No changes were seen in secondary outcomes of inconsistent discipline, non-violent discipline practices and caregiver-adolescent communication. Further adaptation should include non-violent discipline methods, problem-solving approaches and incorporating special time into household chores to allow parent-adolescent dyads the opportunity to spend time together. These and other modifications will be tested in a second pilot study.

The study also suggested modifications to the research methodology. In particular, standardized scales developed in high-income settings should be critically examined for use in different cultural and economic contexts. The ICAST, Child Behaviour Checklist and Medical Outcome Study Social Support Survey all showed good reliability in this sample, but some Alabama Parenting Questionnaire sub-scales, scales of parent-child communication, non-violent discipline and attitudes to gender and sexual violence did not. Adolescent self-report of rule-breaking and aggressive behaviour was substantially lower than parent report, although this disparity is found consistently and internationally in studies of child problem behaviour (Achenbach et al., 1987).

There are a number of limitations to this study. First, causality cannot be determined from non-randomised studies, and so all findings here are preliminary and should be interpreted as initial stages in programme development, following the UK Medical Research Council framework (Craig et al., 2008). Second, the study took place in rural areas of South Africa with Xhosa-speaking participants, and cannot be generalized to other ethnic groups or to urban areas. Third, follow-up was limited to two weeks post-intervention, and subsequent studies should include longer-term follow-up to determine longevity of effects (Aos et al., 2011). Fourth, reliability of some measures was low, and to date no measures for these outcome variables have been validated in sub-Saharan Africa. Although we used scales used previously in South Africa, it is important to interpret with caution the findings of scales that are standardized in different cultural contexts. Fifth, although we analysed pre-defined primary and secondary outcomes, this included multiple t-tests. There remains debate regarding the applicability and necessity for Bonferroni corrections, but even when using these as a conservative check the great majority of changes remained significant (data available on request). Sixth, it would be of value for future research to investigate whether improved effects are achieved through a longer programme with more components, which characterises many successful programmes with younger children in high-income countries. Finally, it will be important for future research with larger samples to elucidate the contributions of different mediator and moderator effects on outcomes of parenting programmes in low and middle-income settings (Gardner et al., 2010).

Despite these limitations, this study provides valuable data to support the development of evidence-based child abuse prevention programmes for developing world settings. It suggests feasibility and validity of parenting principles using social learning approaches in a rural South African context. It also provides initial evidence of positive effects of a parenting programme to reduce child abuse, administered by lay community workers working with a local community-based organization, with no technological resources and with no participant exclusion criteria. Further adaptation and rigorous testing are required to establish effectiveness of such a programme in South Africa, and in other low- and middle-income countries.

References

Achenbach, T.M. 1991. *Manual for the Child Behavior Checklist/4-18 and 1991 profiles,* Burlington, Department of Psychiatry, University of Vermont.

Achenbach, T. M., Mcconaughy, S. H. & Howell, C. T. 1987. Child/adolescent behavioral and emotional problems: implications of cross-informant correlations for situational specificity. *Psychol Bull,* 101**,** 213-32.

Akmatov, M. K. 2011. Child abuse in 28 developing and transitional countries--results from the Multiple Indicator Cluster Surveys. *Int J Epidemiol,* 40**,** 219-27.

Aos, S., Cook, T. D., Elliott, D. S., Gottfredson, D. C., Hawkins, J. D., Lipsey, M. W. & Tolan, P. 2011. Commentary on Valentine, Jeffrey, et al.: Replication in prevention science. The Advisory Board of Blueprints for Violence Prevention. *Prev Sci,* 12**,** 121-2; discussion 123-5.

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 of Systematic Reviews,* 3**,** 1-20 (Art. No: CD005463).

Campbell, N. C., Murray, E., Darbyshire, J., Eemery, J., Farmer, A., Griffiths, F., Guthrie, B., Lester, H., Wilson, P. & Kinmonth, A. L. 2007. Designing and evaluating complex interventions to improve health care. *BMJ (Clinical research ed),* 334**,** 455-9.

Commons, C. 2013. Attribution 4.0 International Public License.

Craig, P., Dieppe, P., Macintyre, S., Michie, S., Nazareth, I. & Petticrew, M. 2008. Developing and evaluating complex interventions: the new Medical Research Council guidance. *British Medical Journal,* 337**,** a1655.

Field, A. 2009. *Discovering Statistics Using SPSS,* London, SAGE Publications.

Finkelhor, D., Ormrod, R., Turner, H. & Hamby, S. 2011. School, police, and medical authority involvement with children who have experienced victimization. *Arch Pediatr Adolesc Med,* 165**,** 9-15.

Finkelhor, D., Turner, H., Ormrod, R. & Hamby, S. L. 2009. Violence, abuse, and crime exposure in a national sample of children and youth. *Pediatrics,* 124**,** 1411-23.

Finkelhor, D., Turner, H. A., Shattuck, A. & Hamby, S. L. 2013. Violence, crime, and abuse exposure in a national sample of children and youth: an update. *JAMA Pediatr,* 167**,** 614-21.

Frick, P. J. 1991. *The Alabama Parenting Scale,* University of Alabama.

Gardner, F., Hutchings, J., Bywater, T. & Whitaker, C. 2010. Who benefits and how does it work? Moderators and mediators of outcome in an effectiveness trial of a parenting intervention. *J Clin Child Adolesc Psychol,* 39**,** 568-80.

Gardner, F., Montgomery, P. & Knerr, W. 2015. Transporting Evidence-Based Parenting Programs for Child Problem Behavior (Age 3-10) Between Countries: Systematic Review and Meta-Analysis. *J Clin Child Adolesc Psychol***,** 1-14.

Jewkes, R., Dunkle, K., Koss, M. P., Levin, J. B., Nduna, M., Jama, N. & Sikweyiya, Y. 2006. Rape perpetration by young, rural South African men: Prevalence, patterns and risk factors. *Social science & medicine,* 63**,** 2949-61.

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 : the official journal of the Society for Prevention Research*.

Lachman, J. M., Cluver, L. D., Boyes, M. E., Kuo, C. & Casale, M. 2013. Positive parenting for positive parents: HIV/AIDS, poverty, caregiver depression, child behavior, and parenting in South Africa. *AIDS Care*.

Lucchetti, A. E., Powers, W. G. & Love, D. E. 2002. The empirical development of the Child-Parent Communication Apprehension Scale for Use With Young Adults. *Journal of Family Communication,* 2**,** 109-131.

Macmillan, R. & Hagan, J. 2004. Violence in the transition to adult- hood: Adolescent victimization, education, and socioeconomic attainment in later life. *Journal of Research on Adolescence,* 14**,** 127-158.

Meinck, F., Cluver, L. D. & Boyes, M. E. 2015. Household illness, poverty and physical and emotional child abuse victimisation: findings from South Africa's first prospective cohort study. *BMC Public Health,* 15**,** 444.

Mikton, C. & Butchart, A. 2009. Child maltreatment prevention: a systematic review of reviews. *Bulletin of the World Health Organization,* 87**,** 353-61.

Olds, D. L., Eckenrode, J., Henderson, C. R. J., Kitzman, H., Powers, J., Cole, R., Sidora, K., Morris, P., Pettitt, L. M. & Luckey, D. 1997. Long-term effects of home visitation on maternal life course and child abuse and neglect. *Journal of the American Medical Association,* 278**,** 637-643.

Parra-Cardona, J., Holtrop, K., Cordova, D., Escobar-Chew, A., Horsford, S., Tams, L., Villarruel, F., Villalobox, G., Dates, B., ANTHONY, J. & Fitzgerald, H. 2009. Latino Immigrants' Call to Integrate Cultural Adaptation with Best Practice Knowledge in a Parenting Intervention. *Family Process,* 48**,** 211-231.

Pillay, U., Roberts, B. & Rule, S. (eds.) 2006. *South African social attitudes: changing times, diverse voices,* Cape Town: HSRC Press.

Pulerwitz, J. & G, B. 2008. Measuring attitudes toward gender norms among young men in Brazil: Development and psychometric evaluation of the GEM Scale. *Men and Masculinities* 10.

Richter, L., Komarek, A., Desmond, C., Celentano, D., Morin, S., Sweat, M., Chariyalertsak, S., Chingono, A., Gray, G., Mbwambo, J. & Coates, T. 2013. Reported Physical and Sexual Abuse in Childhood and Adult HIV Risk Behaviour in Three African Countries: Findings from Project Accept (HPTN-043). *AIDS Behav*.

Rotheram-borus, M. J., Lee, M., Lin, Y.-Y. & Lester, P. 2004. Six-Year Intervention outcomes for adolescent children of parents with the Human Immunodeficiency Virus. *Archives of Pediatric and Adolescent Medicine,* 158**,** 742-748.

Runyan, D. K., Dunne, M. P., Zolotor, A. J., Madrid, B., Jain, D., Gerbaka, B., Menick, D. M., Andreva-Miller, I., Kasim, M. S., Choo, W. Y., Isaeva, O., Macfarlane, B., Ramirez, C., Volkova, E. & Youssef, R. M. 2009. The development and piloting of the ISPCAN Child Abuse Screening Tool—Parent version (ICAST-P). *Child Abuse & Neglect,* 33**,** 826-832.

Sanders, M. R. 2011. Development, Evaluation, and Multinational Dissemination of the Triple P-Positive Parenting Program. *Annual review of clinical psychology*.

Sherbourne, C. & Stewart, A. 1991. The Medical Outcomes Survey (MOS) social support survey. *Social Science and Medicine,* 32**,** 705-714.

Statistics South Africa 2001. *Census 2001: Household Questionnaire,* Pretoria, Statistics SA.

Thornberry, T. P., Ireland, T. O. & Smith, C. A. 2001. The importance of timing: the varying impact of childhood and adolescent maltreatment on multiple problem outcomes. *Dev Psychopathol,* 13**,** 957-79.

Ward, C. L., Flisher, A. J., Zissis, C., Muller, M. & Lombard, C. 2001. Exposure to violence and its relationship to psychopathology in adolescents. *Inj Prev,* 7**,** 297-301.

Webster-Stratton, C. 1998. Parent Training with Low-income Families: Promoting parental engagement through a collaborative approach. *In:* LUTZKER, J. R. (ed.) *Handbook of Child Abuse Research and Treatment.* New York: Plenum Press.

Webster-Stratton, C. & Reid, J. 2010. Adapting the Incredible Years, an evidence-based parenting programme, for families involved in the child welfare system. *Journal of Children's Services,* 5**,** 25-42.

Weisz, J., Sigman, M., Weiss, B. & Mosk, J. 1993. Parent reports of behavioral and emotional problems among children in Kenya, Thailand, and the United States. *Child Development,* 64**,** 98-109.

Zlolotor, A. J., Runyan, D. K., Dunne, M. P., Jain, D., Péturs, H. R., Ramirez, C., Volkova, E., Deb, S., Lidchi, V., Muhammad, T. & Isaeva, O. 2009. ISPCAN Child Abuse Screening Tool Children's Version (ICAST-C): Instrument development and multi-national pilot testing. *Child Abuse & Neglect,* 33**,** 833-841.

Figure 1: Hypothesised theory of change

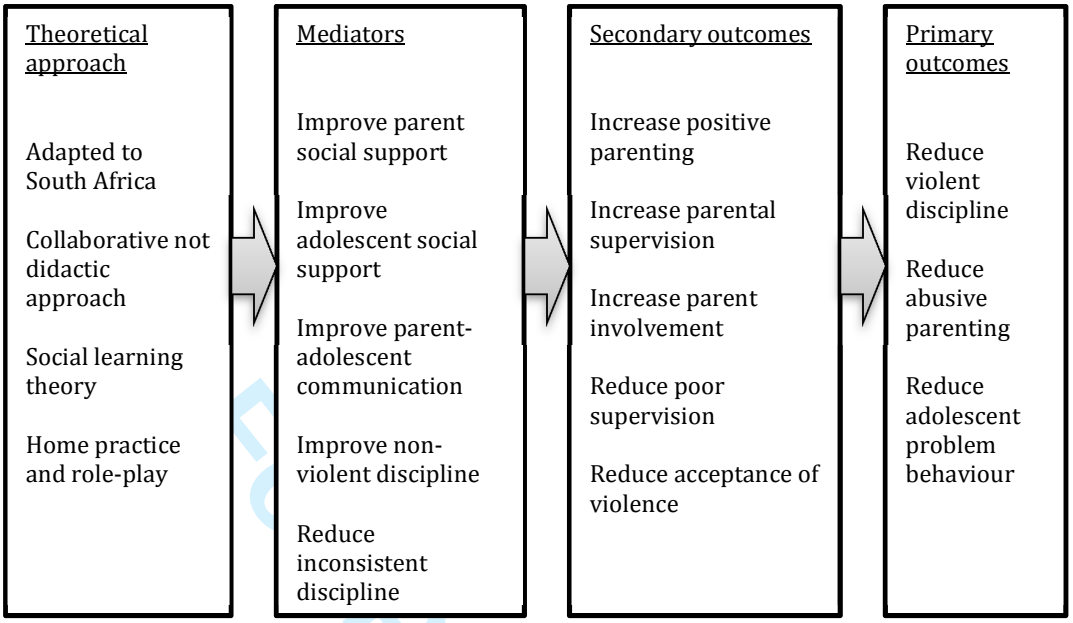

Figure 2: Session Contents

Session	Type	Brief content	Home practice
1	Separate Parent and adolescent sessions	*Introducing the programme & defining participants' goals:* Establishing ground rules, mindfulness-based physical exercise.	Establishing family goals, physical exercise.
2	Joint session	*Building trust and spending time together:* Spending time between parents and adolescents, following the adolescent's lead.	Asking about each other's day, spending time together (e.g. walking to fetch the water, telling a story), physical exercise.
3	Joint session	*Praising each other:* Understanding why praise helps to get better behavior. Practicing specific praise, immediate praise, praise without criticism.	Praising each other once a day, physical exercise.
4	Separate Parent and adolescent sessions	*Naming feelings and talking about emotions* Learning to identify our own feelings and to discuss them with our families. Introducing 'Sinovuyo partner' to support each other.	Commenting on emotions and asking about other's emotions. Visiting support partner, physical exercise.
5	Separate Parent and adolescent sessions	*Dealing with stress, fear, shame and anger* Acknowledging stress and practicing constructive ways of managing difficult feelings.	When feeling angry etc, practice coping plans and do something positive. Visit support partner, physical exercise.
6	Joint session	*Problem-solving* Learning techniques for problem-solving together, making plans and seeing how they work.	Practice problem-solving. Visit support partner, physical exercise.
7	Separate Parent and adolescent sessions	*Rules, routines and responsibilities:* Establishing rules for the home, and routines e.g. for taking medication. Clear and specific, responsibilities according to age and ability.	Establishing one rule or routine together. Visit support partner, physical exercise.
8	Joint session	*Keeping safe in the community:* Identifying and discussing together safety concerns for adolescents. Making plans to keep adolescents safer when they are outside the home	Identifying a risk and making a plan together to prevent it. Visit support partner, physical exercise.
9	Joint session	*Responding to crisis:* Using skills learnt in sessions 5, 6 and 8 to stay calm and make plans together when crises happen – e.g. rape, arrest.	Make a list together of people in the family and any organisations in the community who can help in a crisis. Visit support partner, physical exercise.
10	Joint session	*Moving on and celebrating:* Planning how to support each other in an on-going way, identifying external support, graduation ceremony and celebration.	Continuing to meet as a group or with Sinovuyo partners to support each other with family life.

Table 1: Socio-demographic characteristics of participants

Demographic Variables	Mean (range)/%	SD
Adolescent variables		
Age	13.3 (12-16)	1.1
Female gender	50%	
School enrolment	100%	
Xhosa first language	100%	
South African	100%	
Orphaned	60%	
Orphaned by AIDS	33%	
Parent/Caregiver variables		
Age	45.9 (30-79)	14.9
Female gender	97%	
Employed	13%	
High school completed	10%	
Married	56%	
Biological parent of adolescent	27%	
Xhosa first language	100%	
South African	100%	
Past-year chronic illness	47%	
Household variables		
Basic necessities score (out of 8)	4.2 (1-8)	2.0
1+ days in past week with insufficient food	50%	
Informal (shack/mud) housing	40%	
Number of people in household	6 (2-14)	2.7
Number of adolescents in household	4 (1-10)	1.9

Table 2: Mean and standard deviation scores

	Pre-intervention (mean, SD)	Post-intervention (mean, SD)	Significance
Primary outcomes			
Violent/abusive discipline (parent report)	M=10.18 SD 10.57	M=1.91 SD 3.11	t=3.43, df =10, p=.006
Violent/abusive discipline (adolescent report)	M= 23.53 SD 4.52	M= 21.87 SD 2.11	t=2.39, df =29, p=.024
Adolescent aggressive behaviour (parent report)	M= 6.39, SD 6.52	M= 4.18, SD 3.99	t=3.07, df 28, p=.005
Adolescent aggressive behaviour (adolescent report)	M=5.44, SD 3.23	M=4.69, SD 2.32	t=1.29, df 28, ns
Adolescent rule-breaking behaviour (parent report)	M=4.04, SD 5.36	M=2.32, SD 4.47	t=3.21 df 28, p=.003
Adolescent rule-breaking behaviour (adolescent report)	M=1.51, SD 2.47	M=1.45, SD 1.90	t=.15 df 28, ns
Secondary/linked outcomes			
Positive parenting (parent report)	M=24.83, SD 3.62	M=27.59, SD 3.39	t=-3.17, df 28, p=.004
Positive parenting (adolescent report)	M=25.14, SD 3.27	M= 27.11, SD 4.16	t=-2.38, df27, p=.025
Parent involvement (parent report)	M=34.69, SD 6.17	M=41.07, SD 5.75	t=-4.92, df 28, p<.001
Parent involvement (adolescent report)	M= 37.77, SD 5.91	M = 42.31, SD 9.10	t=-2.70, df 25 p=.012
Poor supervision (parent report)	M=22.90, SD 6.48	M=17.93, SD 6.36	t=3.86, df28 p=.001
Poor supervision (adolescent report)	M=25.12, SD 7.88	M=21.80, SD 7.92	t=2.98, df 24, p=.006
Acceptance of violence (parents)	M=24.23, SD 3.72	M=22.37, SD 3.88	t=3.39, df 29 p=.002
Acceptance of violence (adolescents)	M=27.90, SD 5.16	M=25.62, SD 3.88	t=2.18, df 29, p=.038
Mediator outcomes			
Non-violent discipline (parent report)	M=5.06, SD 3.69	M=4.56, SD 2.06	t=.63, df 17, ns
Non-violent discipline (adolescent report)	M=27.04, SD 4.13	M=26.93, SD 3.84	t=.15, df 27, ns
Parent-adolescent communication (parent report)	M=40.26, SD 6.87	M=39.22, SD 7.39	t=.47, df 26, ns
Parent-adolescent communication (adolescent report)	M=37.00, SD 6.68	M-38.75, SD 5.94	t= -1.05, df 27, ns
Parent social support	M=80.83, SD 16.15	M=91.93, SD 7.23	t=-3.69, df 28, p=.001
Adolescent social support	M=74.59, SD 19.91	M=88.52, SD13.15	t=-5.19, df 28, p<.001