

# Child Abuse Review

## Risk and protective factors for physical and emotional abuse victimisation amongst vulnerable children in South Africa

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Keywords:	physical abuse, emotional abuse, adolescents, South Africa
Abstract:	<p>Little is known about risk and protective factors for emotional and physical child abuse in South Africa. Existing research has focused largely on sexual abuse and relied on recollections of childhood abuse from university students or data from criminal reports. The objective of this study was to establish risk and protective factors for severe physical and emotional abuse amongst a large cross-sectional community sample of South African youth. Confidential self-report questionnaires were completed by children aged 13-19 (n = 603, 49.7% female) with local interviewers in deprived areas of South Africa. Standardized measures of abuse, hypothesized risk factors, and socio-demographic variables were used. Factors associated with severe physical and emotional child abuse were experience of family conflict (p=.003), unequal food-distribution (p&lt;.014), inconsistent discipline (p=.012), number of caregiver changes (p=.022), living with a step-parent (p=.034), caregiver disability (p=.004), food insecurity (p=.006), bullying (p&lt;.001), AIDS-related stigma (p&lt;.001), sexual abuse (p=.003), school non-attendance (p=.006) and non-achievement (p=.015). These identified risk and protective factors at community-, school-, caregiver- and household-levels have the potential to affect the risk of abuse for children in South Africa, and may be valuable fields for future intervention efforts.</p>

*“My father thought that I was spending his money on my girlfriend so he started to threaten me and beat me, and he used his gun to hit me on my head” (Boy, 13)*

## **Introduction**

An abundance of research in the developed world focuses on factors associated with physical and emotional abuse of children by their caregivers. Studies, systematic reviews and child protection services primarily use Bronfenbrenner’s Ecological Model of Human Development (Bronfenbrenner 1979). This framework places children at the centre of multiple interacting spheres of influence. Closest to the child are relationships with caregivers and family. More distal are the ways in which child and family are influenced by school, community, society and culture. The cumulative and counterbalancing effects of risk and protective factors within and across spheres may lead to or prevent the physical and emotional abuse of children (WHO 2002; Belsky 1980). Presence of a number of risk factors, however, should not lead to the automatic assumption of occurrence of child maltreatment (Belsky 1993).

South Africa has high rates of child abuse. Prevalence rates as high as 19% for physical abuse and 26% for emotional abuse (Madu 2003) have been measured. Physical and emotional abuse was reported by 43% of orphans and vulnerable children (OVC) (Thurman and Kidman 2011). These rates are substantially higher than in western community samples, where rates up to 16% for physical abuse and 22% for emotional abuse have been reported (Machado et al. 2007; May-Chahal and Cawson 2005).

Evidence from both the developing and developed world shows that exposure to physical and emotional abuse can predict multiple long-term negative outcomes for children. These include suicide, delinquency, substance abuse (McCord 1983; Brown et al. 2009), HIV-risk behaviour (Cunningham et al. 1994; Cluver et al. 2011), depression and personality disorders (Glaser 2002; Fincham et al. 2009).

In high-income countries risk and protective factors for child abuse have been studied more thoroughly. Systematic reviews found some risk factors to be domestic and community violence, parental mental health problems, parental illness, inconsistent parenting and poverty (Stith et al. 2009; Black, Heyman, and Smith Slep 2001; Black, Smith Slep, and Heyman 2001). Few studies examine such factors in the developing world, however, and comprehensive searches found no community-based studies in South Africa. In the context of high rates of community violence and child abuse within the country, such studies are vital for policy-making and intervention design. In addition South Africa is dealing with the legacy of apartheid alongside the effects of an HIV/AIDS epidemic. Research is essential for understanding the concomitant risk factors within this context, particularly considering the understudied impacts of HIV on family life. Where studies exist they focus almost exclusively on sexual abuse. In a comprehensive search, only six studies were found that examined physical and emotional abuse. Two used samples from official records such as case files and court records and undertook interviews with social workers (Collings 1993; Makoe et al. 2008). These only included cases reported to state services deemed serious enough for investigation. One study (Madu 2003) used university students' recollections of childhood abuse. However, retrospective recollection may be subject to recall bias, particularly for abuse in early childhood. In addition, samples of university students exclude the majority of the South African population which has little access to tertiary education. Another study used self-report of abuse amongst high school students (Madu, Idemudia, and Jegede 2002). This study might be subject to selection bias as the most vulnerable children are less likely to attend high school (Operario et al. 2008). The fifth study investigated participants enrolled in programmes for OVC thereby sampling only the most vulnerable young people (Thurman and Kidman 2011). The sixth study surveyed parental attitudes towards corporal punishment in a nationally representative sample of South African parents (Dawes et al. 2005). Whilst this study is of great value, evidence suggests that parents are even more likely than children to under-report abusive behaviours towards their offspring (Johnson et al. 2002). In addition all of the studies used different thresholds regarding the severity of child abuse measured within their samples. They do, however, identify a number of risk factors. Risk factors for physical abuse, for example, included alcohol and substance abuse by caregivers (Makoe et al. 2008; Madu, Idemudia,

and Jegede 2002), poverty, poor parental mental health, single parenting and older parental age (Dawes et al. 2005). Domestic violence (Madu, Idemudia, and Jegede 2002; Makoae et al. 2008), living with a sick caregiver and orphanhood (Thurman and Kidman 2011) were risk factors for both physical and emotional abuse.

This study, thus, aimed to answer the following question in a large community-based sample in South Africa: What are risk and protective factors for severe abuse victimization?

Hypothesized risk and protective factors were based on established literature from the developed and developing world and included specific HIV/AIDS-related factors suggested by qualitative evidence (Cluver and Gardner 2007). The study used Bronfenbrenner's Ecological Model as its framework and incorporated hypothesized community, school, household, family, caregiver and health-related factors. It focused on factors which may have the capacity to inform interventions in child protective services.

## **Methods**

*Participants:* 1025 children were originally recruited in 2005 in highly deprived urban isi-Xhosa speaking neighbourhoods of Cape Town for a study exploring psychological distress amongst orphaned children (Cluver, Gardner, and Operario 2007). Sampling was purposive to include very vulnerable children. Participants were recruited from 18 non-governmental organisations, nine schools and through door-to-door sampling within the community. Additional information regarding sampling and methodology can be found in the original Cluver et al paper (2007). In 2009, 723 (71%) participants in this highly mobile population aged 13-24 at follow-up, were traced and re-interviewed across South Africa. Information regarding abuse was collected in 2009, and this study focused on adolescents aged 13-19 using the follow-up data (n=603). A period of four years for the follow-up was chosen in order to assess the long-term impacts of HIV/AIDS on child mental health (Cluver et al. 2012).

Sample size: Tukey's range test was used to calculate the sample size for the original 2005 study using confidence levels of 95% and standard deviations established in standardisation studies for each of the psychological scales (CDI, Child-PTSD-checklist etc.) in the study. Using a multiple sample size calculator recommended by Hsu (1996) for the scale with the highest required sample size (PTSD-Checklist), the minimum sample size for each orphan group was calculated to be 115. All of the scales had been validated for populations outside South Africa, therefore the sample size was increased beyond that calculated through multiple comparison computation.

*Procedure:* Children completed a confidential guided 60-minute self-report questionnaire, which was translated by two Masters level researchers and back-translated into IsiXhosa by a psychologist. A team of five isi-Xhosa-speaking community health and social workers cross-checked translations and back-translations to ensure culturally sensitive content without compromising the measures. Interviewers were all local isi-Xhosa-speaking social and community health workers who had received intensive training in working with AIDS-affected children. The training was conducted by a child protection and HIV social worker, a psychologist and a professor of social work. All measures were pre-piloted for cultural acceptability and child-accessibility. Substantial attempts were made to ensure that children were completely comfortable during the interviews. Children were assured that the information they provided would remain confidential except where participants requested help or were at risk of significant harm. Informal feedback from the interviewers suggested that children appreciated both the one-on-one attention and the opportunity to discuss their day-to-day lives with researchers who were genuinely interested in them. Children experiencing ongoing physical, sexual or emotional abuse, severe post-traumatic stress or suicide ideation were visited by the project manager immediately to discuss concerns, seek consent and further information for referrals to local child protection and counselling services. 97 referrals were made.

Participants received no incentive to participate, although a certificate and refreshments were provided after the interview. Participation was voluntary; all children were informed that they could stop the interview at any point in time and would receive a certificate and help if needed, independent of the completion of the questionnaire. Full informed consent was sought from participants and

caregivers. Due to low literacy in the sampled population group, information and consent sheets were read out loud in the language of their choice. Ethical approval was granted by Oxford University, the University of Cape Town and the Western Cape Education Department.

*Measures:*

*Physical and emotional abuse* in the home was measured with five items from the UNICEF 'Measures for National-level monitoring of OVC' (Snider and Dawes 2006). The scale showed acceptable reliability of  $\alpha=.70$  in the current sample. In this context of generally high levels of corporal punishment, physical abuse was defined as being hit with an object likely to cause actual or potential harm or being hit so that it hurt on a weekly or monthly basis (WHO 1999). Emotional abuse was defined as being threatened to be sent away, threatened to invoke ghosts, or threatened to be harmed on a weekly basis. These extreme measures of physical and emotional abuse were used in order to clearly highlight severe physical and emotional abuse rather than harsh parenting. For this study, the two types of abuse were combined and dichotomised to categorise children who were experiencing one or both types of severe physical and emotional abuse ('abused') versus neither.

*Socio-demographic characteristics* gender, age, formal/informal housing and receipt of social welfare grants were all measured using items from the South African Census (Statistics South Africa 2001).

*Caregiver-level factors:* Positive parenting (e.g. praising the child for doing something well) and inconsistent discipline (e.g. threatening to punish but not following through) were measured using the short version of the Alabama Parenting Questionnaire (Elgar et al. 2007). Internal consistency of the full scale was  $\alpha=.75$ . Both subscales showed acceptable reliability ( $\alpha=.54-.81$ ). Exposure to family conflict or violence was measured using two items from the UNICEF 'Measures for National-level Monitoring of OVC' (Snider and Dawes 2006). This was defined as three or more days of adults shouting at each other and/or one or more days of domestic violence per week. Intra-household discrimination was assessed using an item developed in qualitative pilot work which measured discriminatory food distribution, asking participants whether they receive less, more or an equal amount of food in the household compared with other children.

*Family-level factors:* Caregiver changes and caregiver-child relationship were measured with a Road of Life tool (Buchanan 2002). This tool was adapted from a child social work assessment tool ‘the River of Life’ to a road as many children in the Cape Flats had no experience of rivers. It comprises a pictorial path (see Figure 1) with a section for every year within the child’s life since birth. Children were able to mark events important to them i.e. school trips, grades failed, or family death by writing into the appropriate section of the road. A household map was devised for complex extended family structures. This picture-based tool enabled children to draw a blueprint of their house, identifying household members, their relationship to the children, their age, gender, employment, sickness status, and sleeping arrangements. It has been used previously with vulnerable children in South Africa (Cluver, Gardner, and Operario 2007)

*Health Factors:* Death certificates in South Africa are unreliable sources regarding HIV/AIDS, subsequently a Verbal Autopsy Questionnaire was used (Lopman et al. 2006). This has been validated in South Africa (Hosegood, Vanneste, and Timaeus 2004). Determination of AIDS related death required identification of three or more AIDS-defining illnesses (e.g. HIV-wasting syndrome, Kaposi’s sarcoma, or oral candidiasis). Symptoms were reviewed by two independent medical practitioners when the diagnosis was unclear. AIDS-sickness was identified using a similar Verbal Autopsy procedure; including symptoms of AIDS-related and other illnesses common in South Africa (Health Systems Trust 2006). Confidential sickness report sheets identified chronic illnesses, extent of disability and frequency of illness using four scales from the WHO International Classification of Functioning, Disability and Health (WHO 2003). Orphanhood was defined using the UN definition as loss of one or both parents (UNAIDS 2004).

*Household-level Factors:* Household poverty was measured using two items from the South African National Food Consumption Survey identifying days per week without sufficient food (Labadarios et al. 2003). A conservative measure of three or more days without sufficient food per week was used to define extreme poverty (Cluver and Orkin 2009). Household employment and overcrowding was measured using the household map. A dichotomous variable was created to measure overcrowding

using three or more people per room as a cut-off. Child migration was measured using the Road of Life Tool.

*School-level Factors:* Educational achievement and school attendance were measured using items developed by the South African Department of Education and the Young Lives Study (Boyden and Dercon 2008). These included a timetable in which children had to identify which days of the past week they did not attend school, and questions such as “in the past year, how many times did you miss school for more than a week”, or “have you ever repeated any school years?”

*Community-level Factors:* Exposure to Community Violence was measured using four items from the Child Exposure to Community Violence Checklist (Richters, Martinez, and Valla 1990). Items were adapted to common types of violence in South African townships by Heath and Kaminer (2004), and were pre-piloted and further modified in co-operation with local social workers (Cluver, Gardner, and Operario 2007). Violence exposure was conservatively assessed as witnessing or having been victim of one of South Africa’s four most common community crimes: robbery, assault, stabbings and shootings (South African Police Service 2010). Bullying was measured using the nine item standardised Social Health and Assessment Peer Victimization Scale used in prior research with vulnerable children in Cape Town (Ward et al. 2007). The scale contains episodes of bullying, such as being called names and sworn at, being punched or kicked or being made fun of by other children (not at all, once, 2-3 times, 4 or more times). This showed good reliability  $\alpha=.85$ . Bullying victimisation was defined as frequent past-year experience of at least four of the nine types of bullying (Cluver, Bowes, and Gardner 2010). Social Support was measured using the standardised Social Support Scale (24 items) (Adolescent Pathways Project 1992), measuring social support in each child’s microsystem of family, peers and school. This scale has previously been used in Cape Town (Van der Merwe and Dawes 2000). The scale was adapted to replace ‘parents’ with ‘caregiver’ and showed a reliability of  $\alpha=.76$  in this study. Items established the involvement of caregivers, siblings, teachers, best friends, close friends and other people in a child’s life (e.g. this person is helpful when I have a problem, I have fun with this person (not at all, sort of, very)). Stigma was measured using three items developed from qualitative data (Cluver and Gardner 2007) and seven items from the ‘Stigma-by-association



scale' which has recently been validated for use in South Africa and showed a reliability of  $\alpha = .89$  (Boyes, Mason, and Cluver 2013). Participants reported frequency of events such as being teased, gossiped about or people refusing to touch them because of the illness of a family member (never, sometimes, very often). Child sexual abuse was measured using two items from a previous study of AIDS-orphanhood which were devised by social workers in South Africa and dichotomised according to whether children had experienced unwanted physical contact involving sexual organs (Cluver and Gardner 2007).

#### *Analyses:*

We examined associations between various hypothesised risk and protective factors and reported physical and emotional child abuse. Analyses followed a three-stage procedure: a) Basic sample characteristics and prevalence rates of physical and emotional child abuse were calculated using descriptive analyses such as means, chi-squared tests, frequencies and independent sample t-tests; b) As the outcome variable was dichotomous (abused or not), bivariate logistic regression analyses were used to examine relationships between each hypothesized risk and protective factor and abuse independently, controlling for socio-demographic factors (age, gender, formal/informal housing and migration). Logistic regression analyses also allowed for calculation of odds ratios to establish the probability of the association between the hypothesised risk factor and abuse; c) Subsequently all significant factors were entered into multivariate logistic regression analysis for each cluster using the Bronfenbrenner framework (i.e. community-level, school-level, household-level, health and family-level) in order to identify independent factors. Analyses were conducted using SPSS 18.

## **Results**

*Sample characteristics and prevalence:* Participants for this analysis were 13-19 years old (mean age 16.9), were 47.9% female and 97% of Xhosa ethnic origin (Cluver, Gardner, and Operario 2007). Reported severe physical abuse was 6.8% and severe emotional abuse was 11.9% in this sample. 15% of children were classified as severely physically and/or emotionally abused. There were no gender differences regarding the experience of severe emotional and physical abuse.

*Caregiver level risk factors* for abuse were family conflict or violence ( $OR=2.35$   $p<.001$ ), unequal food distribution amongst children in the household ( $OR=3.62$ ,  $p<.001$ ) and inconsistent discipline ( $OR=2.02$ ,  $p=.008$ ). Importantly unequal distribution of food might be part of the abuse pattern rather than an independent risk factor for physical and emotional abuse. Positive parenting acted as a protective factor ( $OR=.62$ ,  $p=.048$ ) (Table 1).

When all associated caregiver-level factors were entered simultaneously, family conflict or violence ( $OR=2.10$ ,  $p=.003$ ), inconsistent discipline ( $OR=2.01$ ,  $p=.012$ ) and unequal food distribution ( $OR=2.96$ ,  $p=.014$ ) remained risk factors for physical and emotional child abuse (Table 2).

*Family level risk factors* for abuse were number of caregiver changes ( $OR=2.41$ ,  $p=.019$ ) and child living with a step-parent ( $OR=4.39$ ,  $p=.031$ ). The age of the primary caregiver was not a factor associated with physical and emotional abuse, neither was living with biological parents, grandparents, or in other caring arrangements but this could be due to small sample size of some of these subgroups (Table 1). When all associated family-level factors were entered simultaneously both factors remained associated with physical and emotional child abuse ( $OR=2.38$ ,  $p=.022$ ;  $OR=4.36$ ,  $p=.034$ ) (Table 3).

*Health-related risk factors* for abuse included having an AIDS-unwell caregiver ( $OR=2.25$ ,  $p=.005$ ), caregiver disability ( $OR=1.18$ ,  $p=.025$ ) and AIDS-orphanhood ( $OR=1.95$ ,  $p=.004$ ). A protective factor was living with a healthy caregiver ( $OR= -.556$ ,  $p=.012$ ). Orphanhood by causes other than AIDS, double-orphanhood or living with a chronically sick caregiver not suffering from AIDS were not factors associated with physical and emotional abuse (Table 1). When all associated health factors were entered simultaneously, only caregiver disability remained significant ( $OR=1.10$ ,  $p=.004$ ). This suggests that the relationship between AIDS-unwell caregiver and physical and emotional abuse might operate via increased caregiver disability (Table 4).

*Household-related risk factors* for abuse were going to bed hungry more than two nights per week ( $OR=3.41$ ,  $p<.001$ ) and not having enough food in the household on more than two days per week ( $OR=3.10$ ,  $p<.001$ ). Having at least one person in the household in employment acted as a protective

factor ( $OR = -.682, p = .010$ ). Overcrowding was not associated with risk for physical and emotional child abuse (Table 1). When all associated household-level factors were entered simultaneously, only going to bed hungry more than 2 nights per week ( $OR = 2.40, p = .006$ ) remained associated with physical and emotional abuse (Table 5).

*Schooling-related risk factors* for abuse were school non-attendance ( $OR = 2.44, p = .013$ ) and school non-achievement ( $OR = 1.70, p = .029$ ). Teacher support did not act as a protective factor (Table 1). When all associated school-related factors were entered simultaneously, school non-attendance ( $OR = 2.76, p = .006$ ) and school non-achievement ( $OR = 1.82, p = .015$ ), both remained associated risk factors for physical and emotional child abuse (Table 6).

*Community-level risk factors* for physical and emotional abuse were being bullied ( $OR = 4.13, p < .001$ ), experience of AIDS-related stigma ( $OR = 1.15, p < .006$ ), community violence ( $OR = 2.01, p = .042$ ) and sexual abuse ( $OR = 5.23, p < .001$ ). Social support did not act as a protective factor (Table 1).

When all associated community-level factors were entered simultaneously, AIDS-related stigma ( $OR = 1.11, p < .001$ ), bullying ( $OR = 3.29, p < .001$ ) and sexual abuse ( $OR = 3.74, p = .003$ ) remained associated with physical and emotional child abuse (Table 7).

## Discussion

This is the first published study using child-current self-report rather than adult-retrospective self-report to examine linkages between reported physical and emotional abuse and hypothesised risk and protective factors in South Africa. This study adds to the literature of factors for child maltreatment in a highly vulnerable population, using a large sample. Prevalence of severe abuse in this sample was 15% which was lower than in other South African studies (Madu 2003) but similar to western samples (May-Chahal and Cawson 2005). However, our cut-offs for abuse focused on severe and consistent abuse and this may account for lower prevalence rates compared to studies including single and less frequent incidents.

Results indicated that many risk and protective factors were common to both western and developing world contexts. Risk factors for abuse included inconsistent discipline, and family conflict or violence. This is consistent with evidence from high-income countries where inconsistent discipline or lack and knowledge of parenting skills as well as domestic violence and stress in the parental relationship were found to be risk factors for physical and emotional abuse (Stith et al. 2009).

Being AIDS-affected and AIDS-orphaned were important risk factors of particular relevance in high-HIV-prevalence contexts such as sub-Saharan Africa. It is especially important to understand what might be driving these AIDS-related factors, since children in families with chronically-ill carers or children orphaned by other causes do not appear to be at heightened risk. The association between physical and emotional abuse and living with an AIDS-affected caregiver may operate via caregiver disability and may be explained by co-morbid experience of depression which worsens as health deteriorates (Norton et al. 2005). Caregiver depression has been established to be a major risk factor for abuse (Stith et al. 2009). HIV+ mothers and those suffering from chronic pain report poorer mother-child relationships and more inconsistent parenting (Evans, Shipton, and Keenan 2006; Armistead and Forehand 1995) which is a risk factor in itself as discussed above. This has been demonstrated also for HIV+ fathers (Steele, Forehand, and Armistead 1997). Further research on the impact of caregiver disability and HIV on families could increase the opportunities of prevention, intervention and support for AIDS-affected families and reduce the risk of child abuse amongst this group.

Extreme poverty (food insecurity) was also a risk factor for abuse, corresponding to studies in high-income countries, which suggest that poorer neighbourhoods and families with an income below the poverty line are most at risk for child maltreatment (Freisthler, Merritt, and LaScala 2006). Having moved three times or more between caregivers and living with a step-parent were also risk factors. This supports qualitative evidence – mainly focused on orphans - of higher abuse in families with step-parents in the developing world (Giese et al. 2003), and quantitative studies in the developed world (Radhakrishna et al. 2001). Being a witness to community crime, being bullied, stigmatised or sexually abused were abuse associated community factors. This corresponds to studies from high

income countries which found that levels of physical abuse were associated with levels of child-reported violence in the community (Lynch and Cicchetti 1998) and that children reporting physical and emotional abuse also experienced more bullying (Duncan 1999). Studies also found sexual abuse to be strongly associated with family dysfunction (Nash et al. 1993) and community violence (Malik, Sorenson, and Aneshensel 1997) which are both risk factors for physical and emotional abuse. AIDS-related stigma is common in South Africa. The experience of AIDS-related stigma may put emotional pressure on AIDS-affected families leading to an increased risk for abuse. Further research is needed to establish the causality of this relationship. In addition, AIDS-related stigma might be inflicted within the family by gossiping, maltreating or disowning affected family members (Campbell et al. 2005). Stigmatisation could therefore be a form of emotional child abuse or reason for increased tension within the family. Children might experience this as not being allowed to eat from the same plate as other family members or being subjected to insults aimed at their parents' or own behaviour which led to HIV-infection.

Importantly, protective factors were also found in this study even if they were no longer significant in the overall models. These were having an employed person in the household, positive parenting, and living with a healthy caregiver. This corresponds with evidence from studies in high income countries where employment and good parental health were found to be protective factors for physical and emotional abuse (Stith et al. 2009).

#### *Limitations of the study*

This study was subject to a number of limitations. i) The prevalence of abuse in this sample cannot be generalized across the national population of South Africa, as orphaned and AIDS-orphaned children were overrepresented in order to ensure inclusion of the most vulnerable children and to examine HIV-specific risks; ii) For the majority of hypothesized risk factors, there are no validated scales for the developing world. However, all scales had been successfully used before in the Western Cape (Cluver, Gardner, and Operario 2007) and showed good reliability in this sample; iii) Due to low levels of HIV-testing in South Africa, this study was not able to identify carers who were HIV+ but asymptomatic. Further research could valuably examine impacts of potentially stressful experiences

associated with asymptomatic HIV, such as diagnosis and disclosure; iv) Additionally, it was unclear how many of the children themselves were HIV+, although children stating they were HIV+ in the questionnaire were excluded from the analysis. Unawareness of one's HIV-status is very common in South African youth since use of testing and counselling facilities in South Africa is exceptionally low considering the national epidemic (8%) (Peltzer et al. 2009); v) As this was a cross-sectional study, it could not detect whether children had been subjected to abuse throughout their childhood or whether the abuse was caused by a change in caregiver or family circumstances. In addition, cross-sectional data do not allow for the establishment of causal inferences, although for most of the identified factors in this study, causality was very unlikely to be reversible (i.e. parental unemployment, caregiver AIDS, AIDS-orphanhood, poverty etc. are unlikely to be caused by child abuse); vi) Finally, data were collected through child self-report only and evidence suggests that children routinely underreport their experiences of abuse (Gilbert et al.). However, previous studies have shown that parents are even more likely to underreport abusive behaviour towards their children (Johnson et al. 2002) and therefore child report is the most accurate measure of abuse. Future research could valuably identify parental factors such as experience of childhood abuse, parental substance abuse, mental health, perceptions of the child and child-parent relationship. All of these have previously been identified as potential risk factors for physical and emotional child abuse (Black, Heyman, and Smith Slep 2001; Black, Smith Slep, and Heyman 2001; Stith et al. 2009).

### *Conclusions*

The findings of this study have implications for the design of interventions, policy and programming in South Africa. They suggest particularly high-risk groups of children for abuse, such as those orphaned by AIDS or living with HIV/AIDS-unwell caregivers, those living in severe poverty, and those experiencing multiple moves of caregiver. They also identify potential areas for intervention, including parenting skills, stigma reduction, anti-bullying programmes and poverty alleviation. Rigorous intervention research is required to establish ways in which risk factors for physical and emotional child abuse can be reduced.

## TABLES

**Table 1: Summary of regressions of each individual hypothesized risk and protective factor for child abuse**

Factors	<i>B</i>	OR CI (95%)	<i>R</i> <sup>2</sup> (nagelkerke)
Family Conflict	.86***	2.35 (1.47-3.76)	.04
Unequal Food Distribution	1.29***	3.62 (3.62-7.99)	.03
Inconsistent Parenting	.70*	2.03 (1.20-3.41)	.03
Positive Parenting	-.43*	.62 (.39-1.00)	.02
Caregiver Changes	.88*	2.41 (1.16-5.04)	.02
Living with bio parent and step-parent	1.48*	4.39 (1.15-16.85)	.02
Age primary caregiver	.01	1.01 (.01-1.10)	.02
Living with biological parents	-.10	.91 (.58-1.42)	.01
Living with step-parents	.62	1.85 (.19-18.24)	.01
Living with grandparents	-.66	.52 (.25-1.08)	.02
Caregiver AIDS-unwell	.81**	2.25 (1.28-3.95)	.03
Caregiver Disability	.17*	1.18 (1.02-1.37)	.06
AIDS-orphanhood	.67**	1.95 (1.24-3.07)	.03
Healthy Caregiver	-.59*	.56 (.35-.88)	.03
Orphaned by other causes	-.38	.68 (.41-1.14)	.01
Caregiver with other chronic illness	.00	1.00 (.57-1.74)	.01
Double orphan	.081	1.08 (.84-1.40)	.01
Going to bed hungry	1.23***	3.41 (2.15-5.42)	.08
Food Insecurity	1.13***	3.10 (1.95-4.92)	.07
Household JOB	-.38*	.68 (.51-91)	.03
Overcrowding	-.04	.96 (.87-1.07)	.01
School non-attendance	.89*	2.44 (1.21-4.94)	.02

School non-achievement	.53*	1.70 (1.05-2.73)	.02
Teacher support	.06	1.06 (.92-1.23)	.02
Bullying	1.42***	4.13 (2.52-6.79)	.11
AIDS-related stigma	.14*	1.15 (1.10-1.21)	.09
Sexual Abuse	1.65***	5.23 (2.32-11.79)	.05
Community violence	.70*	2.009 (1.03-3.92)	.02
Social Support	-.07	.929 (.85-1.01)	.08

Note for all tables: Outcome variable is reported physical and emotional abuse status controlling for age, gender, formal/informal housing and migration

\*\*\*Significant at  $p<.001$ ; \*\*Significant at  $p<.01$ ; \*Significant at  $p<.05$

OR Odds Ratio, CI Confidence Interval



**Table 2: Multivariate Regressions between all significant caregiver-level factors and child abuse**

Caregiver Factors	<i>B</i>	OR CI (95%)	<i>R</i> <sup>2</sup> (nagelkerke)
Family Conflict	.74**	2.11 (1.30-3.42)	.09
Unequal Food Distribution	1.08*	2.96 (1.25-7.00)	
Inconsistent Parenting	.70*	2.01 (1.17-3.45)	
Positive Parenting	-.43	.65 (.39-1.09)	

**Table 3: Multivariate associations between all significant family-level factors and child abuse**

Family Factors	<i>B</i>	OR CI (95%)	<i>R</i> <sup>2</sup> (nagelkerke)
Caregiver changes	.87*	2.38 (2.37-2.40)	.03
Living with biological parent and step-parent	1.47*	4.36 (4.32-4.39)	

**Table 4: Multivariate associations between all significant health factors and child abuse**

Health Factors	<i>B</i>	OR CI (95%)	<i>R</i> <sup>2</sup> (nagelkerke)
Caregiver AIDS-unwell	.31	1.37 (1.36-1.38)	.15
Caregiver Disability	.10**	1.10 (1.10-1.10)	
AIDS-orphanhood	.51	1.66 (1.65-1.67)	
Healthy Caregiver	-19.39	.00 (.00-8.60)	

**Table 5: Multivariate Regressions between all significant household-level factors and child abuse**

Household Factors	<i>B</i>	OR CI (95%)	<i>R</i> <sup>2</sup> (nagelkerke)
Going to bed hungry	.87*	2.40 (1.29-3.21)	.10
Food insecurity	.54	1.72 (.92-3.21)	
Household job	-.12	.89 (.66-1.22)	

**Table 6: Multivariate associations between all significant school-level factors and child abuse**

School Factors	B	OR CI (95%)	R <sup>2</sup> (nagelkerke)
School non-attendance	1.01*	2.76 (1.35-5.65)	.04
School non-achievement	.60*	1.82 (1.13-2.93)	

**Table 7: Multivariate associations between all significant community-level factors and child abuse**

Community Factors	<i>B</i>	OR CI (95%)	<i>R</i> <sup>2</sup> (nagelkerke)
Sexual Abuse	1.19**	3.28 (1.36-7.90)	.17
AIDS-related Stigma	.10***	1.61 (1.05-1.17)	
Community Violence	.41	1.51 (.74-3.09)	
Bullying	1.01***	2.74 (1.59-4.70)	

**1: For HOME, write on the road:**

- where home were you living in?
- who was the person who looked after you most?
- why did things change?

**my road of life**

**2: For SCHOOL, write on the road:**

- what grade you are in now?
- what are the names of your schools?
- any years you repeated and why?
- when you left school and why? (also say if you are planning to go back!)

**START!**

I was born on (date) .....  
 where? .....  
 who looked after you most? .....

**SCHOOL** **HOME** **THE FUTURE**

Figure 1: Road of Life Tool

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