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A Systematic Review of the Mental Health of Orphans and Vulnerable Children within the Context of HIV/AIDS in Africa

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Abstract

Global information on the HIV/AIDS epidemic indicates the existence of an ever-increasing number of orphans and vulnerable children. It has been suggested that by the end of 2020 there will be more than 25 million AIDS orphans globally. However, there is a scarcity of reliable empirical data on the mental health of orphans and vulnerable children in the context of HIV/AIDS epidemic. This systematic review provides a synthesis of empirical findings related to mental health of Orphans and Vulnerable Children within the context of HIV/AIDS in developing countries. A bibliographic database using keywords of the research area was searched on various databases, including Medline, PsychINFO and PsycARTICLES from 1980 to 2013. Twenty-eight (28) empirical quantitative studies were identified which addressed the mental health challenges of HIV/AIDS orphans and vulnerable children. The studies are mainly cross-sectional with few longitudinal. Standardized measures were used in all of the studies reviewed. Findings show that, in the context of HIV/AIDS, children are found to suffer anxiety, worrying and fear during parental infection and to express trauma and grief after parental death. Compared to other children, orphans were observed to be more depressed, anxious, and less optimistic and to display angry feelings and disruptive behaviours. There is an urgent need for rigorous, research into mental health, and risk and protective factors for children affected by AIDS. The review findings also highlighted the need for an evidence-based, coordinated approach, interventions to promote the mental health of these children.

Keywords: Orphans, Vulnerable Children, HIV/AIDS, Developing Countries

Introduction

All children need healthy relationships with their parents. These have essential long-lasting consequences for their health and wellbeing; but children affected by the HIV/AIDS menace experience compromised attachment relationships [1, 2]. By the end of 2010, the world's worst public health challenge, the HIV/AIDS pandemic has claimed 35 million lives whilst 34 million others are currently living with the disease [3]. Over 14 million children have lost one or both parents to the disease and a further 25 million children are living with parents or adults who are HIV/AIDS-infected [4]. Presently, adults constitute those mostly infected with and dying of HIV/AIDS: about 90% of HIV/AIDS cases and deaths are found among people between the ages of 20-49 years. This demographic stratum unfortunately also happens to be the child-bearing and child rearing age. The lack of access to antiretroviral treatment and the protracted and latent nature of HIV/AIDS infection mean that increasing numbers of children will have to spend much of the childhood years with an infected parent or as an orphan [5, 6].

Parental illness or loss permeates all aspects of a child's life and often marks the beginning of drastic changes in their lives.

Parental deaths and illnesses are childhood traumatic events that are associated with several negative physical and psychosocial health problems [7]. In the case of HIV/AIDS, the impact on children could be worse because HIV/AIDS is not only a medical disease but also a social, political, economic and a highly stigmatized phenomenon [8, 9]. However, there is a scarcity of reliable empirical data on the mental health of orphans and vulnerable children in the context of the HIV/AIDS epidemic [10]. Cluver, Gardner & Operario bemoaned the limited, grey and scattered nature of available evidence on children affected by HIV/AIDS. This notwithstanding there is a growing body of knowledge on the mental health of these children over the past three decades.

Rigorous and systematic empirical studies concerning the psychological well-being of children affected by HIV/AIDS were emerging in the past decade. Earlier reviews on these children were informative in understanding the earlier literature on the psychological well-being of children affected by HIV/AIDS.

However, there have been a growing number of studies in the past few years and there is a need to update our knowledge. Therefore, we conducted a systematic review to expand the previous reviews by examining the existing global literature on the psychological well-being of children affected by HIV/AIDS. The objective of this review is to synthesize the major findings of the impact of parental HIV/AIDS on children's psychological well-being. The current systematic review differs from earlier works in many ways. First is that this review builds upon the published reviews by moving away from grey literature to mainly peer-reviewed research, offering a more critical analysis of research studies, placing research in the appropriate context, and exploring the limitations of data sources and measurement tools. The articles were critically reviewed, with specific attention to study design, sampling methods, research tools and study context. The papers included in the review were evaluated using adapted components of SIGN checklist provided by the Scottish Intercollegiate Guideline Network (SIGN). The SIGN checklist outlines guidelines and criteria for assessing the quality of cross-sectional designs and control studies. Describing the situation of orphans and vulnerable children, UNICEF recounted that they are struggling to cope with significant loss, poverty, hardship, poor psychological functioning, stigma and discrimination, violence, economic exploitation and are at heightened risk for their mortality [11, 12]. Lin, Zhao, Li suggested that AIDS orphans and those living with infected parents suffer elevated levels of psychological difficulties and that perceived stigma, lower SES, child labour and abuse might put them at additional risk for psychological disorders. In line with these observations, this is the first known systematic review that also critically reviewed the evidence on risks and protective factors for mental health outcomes.

Method

Review Strategy and Works Included

A bibliographic database using keywords of the research area was searched on various databases, including Medline, PsychINFO and PsycARTICLES from 1980 to 2013. The review was limited to this period because the first case of HIV/AIDS was identified in Africa in early 1980s and research into the HIV problem has seen some decline after 2013 when many African countries have reported a significant reduction in new infection rates. See (Appendix 1) for the search terms. This yielded various published studies on mental and psychological well-being of orphans and vulnerable children.

The search was automatically updated using Ovid whenever there was a new related publication until June 2014. Searches were done on Google, websites of key NGOs (UNICEF, USAID, UNESCO, Action Aid and many others as well as other opened educational websites, and African Journal Online. Theses and dissertation searches were also searched on British theses database, PhD.com, Dissertation Abstract international. Some useful reports and grey literature were retrieved from HIV/AIDS Conference websites and published books. As part of the review email requests for ongoing studies were also made to key academics who have published papers relevant to the current study. The papers retrieved were filtered to include only articles that met pre-defined criteria. Because mental health and OVC do not represent homogenous and constant constructs, the literature search was operationalized and studies were included if:

- ❖ The study participants involved children between 8 -18 years
- ❖ It was written in English language
- ❖ Mental health outcomes included either externalizing (eg Attention Deficit Hyperactivity Disorder, conduct problems)

- and/or internalizing (eg depression, anxiety) problems
- ❖ Mental health was measured as dependent variable
- ❖ The study involved children, adolescents, orphans, AIDS orphans, children affected by AIDS, HIV/AIDS or vulnerable children.
- ❖ Studies were excluded if they involve:
- ❖ Children under 8 or over 18 years. This is in line with the age range (8-18 years) of the present study because of comprehension and literacy issues.
- ❖ Intervention studies
- ❖ Non-English language
- ❖ Quality of life in general

Study Selection and Data Collection

Using the search strategy described above, all titles and abstracts retrieved were scanned for relevance. Duplicates articles not relevant, and articles that did not meet the inclusion criteria were removed. Fulltext-papers were obtained for studies that were selected for inclusion. Two reviewers assessed the studies to ensure that they met the inclusion criteria set out for this review.

Data Analysis

As the studies and papers included in this review were too diverse to allow a quantitative synthesis of the study findings, a narrative synthesis was undertaken. The papers included in the review were evaluated using adapted components of SIGN checklist provided by the Scottish Intercollegiate Guideline Network (SIGN). The SIGN checklist outlines guidelines and criteria for assessing the quality of cross-sectional designs and control studies. The checklist appraised each included paper for internal validity, sampling/selection of participants, control group, assessment of independent variables, assessment of dependent variables, control of all possible confounders, appropriate statistical analysis, participation rates, comparability of subgroups, appropriate interpretation of research findings, source of funding and conflict of interest. Studies were assessed for selection bias, study design, confounders, blinding, data collection and withdrawals and drop-outs. Each study was rated independently by two reviewers. The quality assessments were compared and disagreements were resolved through discussion. Based on the ratings of each of the six components, each study received an overall global rating of strong, moderate or weak. Following the quality assessment stage, the inclusion of studies and extraction of key findings was finalized. Extracted data were entered into a table of study characteristics (Table 1) including the quality assessment ratings for each study. The SIGN checklist compares reliably with other established quality appraisal scales such as the National Institute for Clinical Excellence (NICE), CONSORT (Altman et al 2001) and CASP (Critical Appraisal Skills Program, 2006).

Results and Discussions

The Concept of Orphanhood

Orphanhood is difficult to define. It is not an absolute state of development and also has cultural, legal and political dimensions [13]. Sherr et al noted that the current situation is one fraught with a lack of clarity over definitions of orphanhood within the context of HIV/AIDS. The definition of an orphan varies in the literature, with regard to age and parental loss. Generally, an orphan is defined as a child who has experienced the death of both parents. The UNAIDS defines an orphan as a child under 15 years of age who has lost a mother or both parents [14]. Most researchers used the

UNAIDS definition. Others have increased the age to 18 years [15-17]. They argued that the UNAIDS use of 15 years was statistical and methodologically linked to the availability of primary data for that age categorization (0-15 years) in most Demographic and Health Surveys. They concluded that this statistical and methodological necessity or convenience should not limit observations that children still have unmet needs beyond 15 years and the fact that most countries have 18 years as the boundary for adulthood. It is also generally accepted among researchers that loss of a father would also place children at heightened vulnerability for psychological distress. Finding in Uganda shows that paternal orphans (children who lost their fathers) are seriously affected than children who lost their mothers. Consequently, UNAIDS revised its definition, and now refer to any child age 18 and below whose mother or father had died as an orphan.

Several layers and classification systems for orphans have been identified as attempts to understand their situations [18]. These include the nature of their caregivers, namely, extended families, foster parents, child-headed household and institutional care, between paternal, maternal and double orphans [19-21]. And recently, we have orphans caused by AIDS and orphans of other causes [16]. In the wake of HIV/AIDS epidemic, lack of adequate care service structures and mechanisms led to poor living situations of the increased numbers of children orphaned by AIDS. This prompted academia and service providers to focus on AIDS orphans. However, the nature and dynamic of the HIV/AIDS epidemic and its associated poverty mean that focusing on AIDS orphans does not address the full scale of the disease on children [22]. It is suggested that HIV/AIDS affects families and not individuals and so all children (not only orphans) become vulnerable when the disease enters a household. The tight definition of orphanhood (or orphan) has limited usefulness within the context of HIV/AIDS epidemic. The construct “orphans and vulnerable children (OVC)” is now used to refer to all children that are affected by HIV/AIDS. Richter et al, commented that the term OVC allowed for the avoidance of potentially stigmatising labelling (orphans) while ensuring the inclusion of other children in needs and provision [23, 24]. An explicit definition of the construct and boundaries of inclusion or exclusion is a contested issue in the literature. For the purpose of this study, the term orphan refers to a child who is bereft of at least one parent to death whilst OVC is used to identify a child who is 18 years or below and has lost at least a parent or is living with HIV/AIDS-infected parents.

Identification of AIDS-Orphan and Orphans of Other Causes

All the studies that reported on orphans used the verbal autopsy method to identify a child as AIDS- orphan or other-orphan. Most deaths are not medically certified or attended to by medical doctors in Africa [25]. There is a lack of certified causes of death in mortality data in Africa, particularly in the rural areas where most deaths do not occur at health centres. Most deaths occur at home and go undocumented due to the inaccessibility of health facilities and poor registration systems [25]. In such circumstances, Verbal autopsy, a technique in accessing the cause of death is often the sole option.

Verbal autopsy utilises information provided by close relations or significant others on circumstances and symptoms leading to death without verification by death certificates. It is based on the assumption that diseases have distinct, observable symptoms that can be recognized and reported by even laypeople. Others have argued

that the use of verbal autopsy in Africa to identify the cause of AIDS death is spurious arguing that symptoms defining the disease overlap with those of other diseases and that high stigma and discrimination force persons in African cultures not to be opened about the diseases [26-30].

However, the robustness of the verbal autopsy method as a critical instrument for use in developing countries has been demonstrated and the tool has been validated in several African countries including Ethiopia, South Africa, Uganda and Tanzania. The validation was done by comparing the assigned cause of death from verbal autopsy to HIV/AIDS sero-status of individuals known prior to death or to hospital records of certified deaths [31-41]. In these studies, verbal autopsy has about 85% sensitivity and a specificity of about 79% for identifying AIDS deaths.

Verbal autopsy validation in Ghana also compared assigned causes of death from verbal autopsy to medically certified causes of death and was found to correctly identify 78% of deaths. Verbal autopsy has since been used in several studies with high predictive powers [32, 42]. The World Health Organisation and Health Metrics Network have approved it for use in developing countries and asserted that it is an essential means of ascertaining AIDS deaths in the absence of HIV/AIDS sero-status record of deceased persons [43]. Lopman and colleagues state clearly the value of verbal autopsy: it is the only option to identify the cause of death in widespread HIV/AIDS epidemic settings [44].

The Psychosocial Wellbeing of Children Affected by HIV/AIDS

The outcome of the review using the SIGN checklist is presented in Table 1 and the methodological appraisal of the quality of the available literature is discussed elsewhere later in this chapter. The evidence for mental health problems among children affected by HIV/AIDS is presented below under subsections “AIDS Orphans and Other Orphans” and “Children living with HIV/AIDS- infected Parents”. See Cluver et al, and Wild et al, for reviews of studies conducted prior to 2007 [45, 46].

AIDS Orphans and Other Orphans

The challenges and difficulties hampering efforts to extend antiretroviral treatment to those infected to prolong life and the increasing numbers of adults already infected with HIV/AIDS mean that the number of AIDS orphaned children will continue to rise; many HIV-infected adults will progress to AIDS quickly and subsequently die leaving their children orphaned [47-49]. Kidman argued that AIDS orphans are exposed to mental, physical and social problems in the absence of a responsible caregiver. It could be possible that orphanhood within the context of HIV/AIDS would increase poor mental health through several pathways [50]. They are often denied parental supervision, support and care. Parental death to AIDS means loss of a breadwinner and key support system, trauma, stigma, abuse and exploitation [49, 51-53]. In the context of the HIV/AIDS epidemic, the death of a parent sparks drastic changes for children including changes in the family and household structure, separation of siblings, placement in poorer households and an end to childhood as they take on adult roles and duties including bread-winning responsibilities [54-57].

The severity of the impacts of the HIV/AIDS pandemic on children prompted Amon (2002) to suggest that millions of children will consequently lack adequate care and guidance for normal

development as they are deprived of their number one line of protection and support. Quite recently, there has been a growing international interest in research on orphans because of the realization that parental death is a risk factor for psychological distress [16, 47, 15, 58-65]. In the context of HIV/AIDS, orphans are suggested to have multifaceted needs that are complex [66]. AIDS orphans suffer cumulative, multiple loss [65] that compounds their risk of experiencing psychiatric disorders when compared to other children [67]. Orphans may face anxiety about their future, and the chances of not continuing and completing school [51, 68]. A study conducted in Zimbabwe in 2008 found that orphaned children of all types (maternal, paternal, and double) have significantly higher distress than non-orphans [57]. In Tanzania, similarly high internalizing problems were reported for orphans compared to non-orphans [55].

Cluver found that in South Africa, compared with other children, AIDS orphans have more mental health problems such as depression, anxiety and post-traumatic stress disorder. Suicidal ideation was also found to be significantly higher among AIDS orphans than non-orphans in a study conducted in Cape Town [16, 69]. Kagwa and Hindin noted that orphanhood was associated with poor psychological wellbeing, specifically hopelessness and depressive symptoms. No significant differences were found in rates or severity of symptoms of mental difficulties among single orphans compared to double orphans in China, which prompted Ziaoyi et al to claim that living with a surviving parent offers no antidote against the numerous psychological difficulties that children experience when they experience parental death from AIDS [70, 71]. He & Ji indicated that orphans in China are less satisfied with their lives and show symptoms of depression and lower self-esteem. Following on from this, it is argued that lack of adequate grieving process offered orphans and the drastic life changes that occur with its associated deprivations are the drivers of the increased psychological difficulties observed in children orphaned by AIDS [47, 49].

Children Living with HIV/AIDS-Infected Parents

UNICEF (2003) noted that children do not have to be infected with the to be devastated [72, 73]. Rotheram-Borus, Weiss, Alber and Lester (2005) found that children are affected not only by AIDS parental deaths but also by the time they spend with their infected parent(s) or by merely living in household with a relative infected. Children living with HIV/AIDS-infected parents would witness the physical and psychological deterioration of their parent(s) as parenting skills, social support, family cohesiveness are compromised [73]. The diagnosis of HIV/AIDS in the family comes with negative changes in the family structure and systems that may have consequences for the members. The diagnosis of HIV/AIDS in the family, Richter et al, noted marks the beginning of a series of other interconnected disadvantages including poverty and stigma [74]. These changes in the family structure would lead to reduced or lack of adult attention, care and guidance for children that would place them at heightened risk for several social and psychological problems [75]. Children living with HIV/AIDS-infected parents are often required to care for siblings and sometimes parents, take up more demanding house chores and engage in paid jobs to support the family. Household roles and duties are reversed and children become their parents' caregivers. These vulnerable children are now supporting and nursing their infected parents and other relatives rather than experiencing a normal childhood. These children are denied the experience of healthy childhood that they deserve [76]. Thus, the limited evidence available indicates that the

very fabric of a child's normal development begins to fall apart with the presence of HIV/AIDS infection in the household suggesting that these children have to battle the rigours and impact of HIV/AIDS well before they are orphaned.

Sengendo & Nambi and bemoaned the devastating and traumatic effects that caring for HIV/AIDS infected and sick parents have on children [77]. Therefore, the many children whose parents or household members are infected with the disease may be living in stressful circumstances in the community. These children, compared to other children, are at risk of a multitude of psychological and health problems [75, 78]. Donenberg and Pao attested that children living with HIV/AIDS-infected parents show substantial and prolong development impacts similar to that experienced by orphans.

Giese et al and Andiman suggested that parental illness could be distressing and disruptive for children [79, 80]. The available sparse literature indicates that children felt sad, angry, depressed and hopeless when their parents are sick [77]. Children living with infected parents experience depression, impaired cognition, grief and post-traumatic stress disorder [81, 82]. Identified that children living with infected parents are withdrawn, isolated and are prone to experiencing depressive disorders because of worrying about their future and their parents' health. It was suggested that children are more likely to be depressed, withdrawn and suffer attention problems when they live with ill parents, but pointed out that these difficulties become profound following parental death [83]. Others, however, claim that these internalizing behaviours that often begin with parental illness may not necessarily increase following parental death [59]. It is therefore not certain that the psychological distress that orphans experience would necessarily always be solely due to orphanhood [84]. Klunkin & Harrigan suggested that the vulnerabilities that AIDS orphans and other vulnerable children face are due to poor parental coping, social ostracism and stigma.

Donenberg & Pao pointed out that significant medical advance in the treatment of HIV/AIDS has resulted in an increased number of children living with infected parents or relatives within the household [78]. Children living with infected parents constitute the largest group of secondary sufferers [85]. Furthermore, as the incidence of new infections is not reducing significantly the number of households and families affected by the parent(s) living with HIV/AIDS will continue to rise. Despite the suggestions that children living with infected parents are faced with a multitude of vulnerabilities and risks that have negative psychological consequences, they are not the target of existing AIDS-related interventions for children affected by the epidemic. The available supports are given to AIDS orphans as opposed to those living with infected parents [86].

Methodological Quality Assessment and Appraisal of Previous Studies

The outcome of the review using the SIGN checklist is presented in the table below. In summary, the overall methodological quality of more than 95% of the studies is low. The majority of the studies utilised convenient, small samples with only approximately less than 5% using systematic sampling or representative samples. There are variations in the use of measurement scales and tools that make comparison across studies difficult. Approximately 92% of the studies did not provide information on the response rates. Additionally, definitions of orphans as used in the studies are vague,

lacking inclusion or exclusion criteria. A total of 27 (96.4%) out of the 28 studies reviewed are quantitative. Two were longitudinal studies while the majority of 26 are correctional surveys.

Despite recognition that childhood and orphanhood extend to at least 17 years, most researches adopted 15 years as their cut-off. It is also not uncommon that studies compared AIDS orphans and non-orphans without controlling for relevant confounders and concluded that the differences in their psychological functioning are due to impacts of AIDS. It was also found that few studies controlled for socio-demographic factors and only 5 studies examined other confounding variables beyond these factors. In about 87% of the studies, the technique for determining the cause of parental death was not specified. The sparse and scattered available evidence therefore, limits conclusions about additional effects that HIV/AIDS might have on children other than those associated with orphanhood per se or vulnerabilities that face all children. Children living with HIV/AIDS infected parents were often excluded from empirical research as revealed by the existing literature.

Globally, there is public health concern about alleviating the negative impacts of HIV/AIDS on children in families and communities experiencing the epidemic. However, the literature reviewed suggests that the evidence that orphans and vulnerable children are at heightened risk for numerous vulnerabilities and psychological problems is mixed, inconsistent, and sparse. The available findings are based on limited empirical data that suffer serious methodological problems such as the use of non-standardized measures, inappropriate control groups and small sample size. Many of the existing data have come from children in matured epidemic contexts such as urban areas in Southern and Eastern Africa including South Africa, Tanzania, Zimbabwe, Ethiopia, Kenya [5, 10, 16, 56, 68, 69, 87-89]. There is also a growing literature from China [70, 90-95].

Clearly, previous studies are inadequate to understand the impact HIV/AIDS has on children in low and early epidemic regions. Urgently needed is a deeper contextual understanding of the impact of parental HIV/AIDS and death on children as well as a spectrum of risks and protective factors, which could be targeted in intervention programmes for families and communities affected by HIV/AIDS. Furthermore, most studies collected data from either the affected children or their caregivers and parents.

Finally, the earlier works on HIV/AIDS vulnerable children in Africa were mainly conducted in urban areas. Ghana and Africa as a whole have a predominantly rural population, and it is well documented that most HIV/AIDS-infected and affected persons live in rural areas. There is also evidence urban vs. rural settings impact upon mental health disorder prevalence in sub-Saharan Africa [98, 99]. In summation, the emerging empirical evidence that the literature currently presents on HIV/AIDS vulnerable children is largely anecdotal and limited.

It is not all children affected by HIV/AIDS that suffer psychological symptoms. In the general literature on children, risk factors are known to increase the likelihood of developing and experiencing psychological symptoms whilst protective factors shield the child and reduce the probability of children suffering psychological distress [100]. The specific risk and protective factors that may influence how HIV/AIDS impacts children's mental health have yet to be identified, in order to guide the formulation of the best intervention strategies to alleviate adverse psychological functioning. In the international literature, the dynamics of potential mediators (risks and protective factors) are rarely captured. Clearly comprehensive knowledge about mental health needs, particular kinds of psychological problems as well as how specific factors heighten or buffer these problems is needed to develop appropriate services for families with orphans and vulnerable children.

Table 1: Empirical Quantitative Studies on Orphans and Vulnerable Children in Developing Countries

Author/Year/Design	Sample Characteristics	Measures	Setting	Key Findings	Quality Rating Category
Chao, Denise, Mbai, Itindi, Milimo, Halpern & Iritani (2010), Cross-sectional non-randomised control trial.	105 Adolescent orphans aged 12-14 yrs Intervention: supported with education: school fees and uniforms plus a community visitor	Un-standardized self created measures	Kenya	<ol style="list-style-type: none"> 1. Intervention students were less likely to drop out of school, commence sexual intercourse, or report attitudes supporting early sex. 2. School support also increased prosocial bonding and gender equity attitudes. 	Low
Zhao, Li, Fang, Zhao, Zhao, Lin & Stanton (2010), Cross-sectional design	459 single orphans in family-based care	Trusting Relationship Questionnaire Epidemiological Studies Depression Scale for Children Children's Loneliness Scale Trauma Symptom Checklist for Children Multidimensional Scale of Perceived Social Support	China	<ol style="list-style-type: none"> 1. No significant differences were reported between maternal and paternal orphans, except that paternal orphans reported better trusting relationships with caregivers than maternal orphans. 2. Children with a healthy surviving parent reported significantly better scores for depression, loneliness, posttraumatic stress, and social support than children with a sick parent. 3. Significance relation on orphan status and academic marks and trusting relationships with caregivers while controlling socio-demographic factors. 	Low
Atwine et al (2005) Cross-sectional	123 rural AIDS orphans	Beck Youth Inventories translated into Runyankore	Uganda	Orphans higher on anxiety, depression, hopelessness, suicide ideation and anger than non-orphans. Self-concept was same for both. Orphanhood status is a sig. predictor of outcomes. Age, gender, socio-economic status, household size, school attendance, currently doing chores, multiple bereavement and current are not associated with psychological distress.	Adequate
Case&Ardington (2005), Longitudinal studies	Not Stated	Self constructed scale	South Africa	Orphans have education difficulties than other children. Maternal orphans' educations are affected than paternal ones.	Adequate
Cluver& Gardner (2006), Cross-sectional design	30 AIDS orphans, 30 non-orphans	SDQ	South Africa	No differences. However, orphans have suicide ideation and high PTSD	Low
Hong et al (2010a), Cross-sectional	755 AIDS orphans 466 Vulnerable Children 404 Comparison children	MPSS plus 10 other psychosocial scales	China	Vulnerable children reported the lowest level of perceived social support. Perceived social support is associated with positive psychosocial outcomes. Gender and age are significant covariates of perceived social support. No difference in family support among the 3 groups.	adequate
Hong et al (2010b), Cross-sectional	Orphans living in: Community based care (30), Kinship care (90) and orphanages (176)	Chinese version of TSCC	China	Orphans living in Kinship care were significantly distressed compared followed by those in orphanages and then those in community. SES and gender are not significantly associated with psychological outcomes.	Low

Zhao et al (2010) Cross-sectional	459 Single AIDS orphans in family based care	A battery of psychosocial scales that measures depression, self esteem, loneliness, PTSD, social support, self-reported health status, trusting relationship with caregiver, academic mark, educational expectations.	China	No significant difference between paternal and maternal orphans on all measures except that paternal orphans showed better trusting relationship with caregivers than maternal orphans. Orphans with healthy caregivers showed better psychological wellbeing than those with sick caregivers.	Low
Kuzinger et al (2008) Cross-sectional survey	11392 caregivers of orphans (4931 in Tanzania, 4835 in Burkina Faso) and 1626 non-orphans	Not Stated	Tanzania and Burkina Faso	No difference between orphans and non-orphans on school performance and psychological health. Orphans are less likely to receive education Increased age is associated with less going to school. Males are more likely to receive education than females. Children from Christian families are more likely to be in school than those belonging to other religions.	Low
Xu et al (2010) Cross-sectional	64 orphans 52 non-orphans	Self-constructed measures	Tanzania and Burkina Faso	No difference between orphans and non-orphans on health, illness and psychological wellbeing. No difference was also found on education, and family and peer relationships.	Low
Cluver, Gardner & Operario (2009) Cross-sectional	425 AIDS orphans 241 other orphans 278 non-orphans	CDI, CMA-Revised, SDQ, Child PTSD checklist	South Africa	AIDS orphans high on psychological problems of depression, PTSD, conduct and peer problems. Food security, employment in household and access to social grant and education are related to better psychological wellbeing.	Good
Case, Paxson & Ableindinger (2004) DHS data from 10 African countries	Not Stated	Not Stated		Living with distance relative is associated with poor school enrolment. Orphans are less likely to be in school. Effect of orphanhood on education increased with age. No gender difference on school enrolment for orphans.	Adequate
Zhao et al (2010b) Cross-sectional	176 AIDS orphans aged 6-18 years	CES-DC Children Loneliness scale Traumatic Symptoms Checklist for Children	China	Orphans who were cared for by non-relatives scored highest on depression, traumatic symptoms and loneliness than those cared for by surviving parents, grand parents, and other relatives. Orphans cared for by grand parents have better psychosocial wellbeing than other orphans. No significant association between psychological wellbeing and age, gender, time in orphanage, household replacement, duration of displacement.	Low
Nyamukapa et al (2010) Cross-sectional and focus 14 group discussions with children	185 double orphans 109 maternal orphans 150 paternal orphans 83 non-orphans Orphans are aged 12 years and below	Depression and anxiety scales adapted from WHO self-report questionnaire	Zimbabwe	Orphans were significantly higher on psychological distress than non- orphans. Increased mobility and sibling separation are associated with psychological distress. Girls and younger children reported significantly high psychological distress. Paternal and double orphans are worse affected psychologically.	Adequate

Kaggwa & Hindi (2010) Cross-sectional school based survey	1500 children aged 12 – 29 years	Newly constructed scale, and CBI, Beck Hopeless Inventory	Uganda	Orphanhood was associated with psychological distress among male orphans. Male double orphans and male maternal orphans have high depression and hopelessness. Lower caregiver connectedness, having a chronically ill adult in household and ill-treatment in residence are associated with high depression among males.	Low
Lin et al (2010) Cross-sectional	755 AIDS orphans 466 Vulnerable children 404 comparison children	Centre for Epidemiology Studies Depression Scale for children, Children loneliness scale, Rosenberg Self-esteem scale, Future Expectation Scale, Hopefulness	China	Increased stigma is associated with high psychopathology and lower self esteem, hopefulness, future expectations. Aids orphans reported higher stigmatization than other children. Age is a significant covariate for psychopathology.	Adequate
Zhang et al (2009) Cross-sectional survey	755 AIDS orphans 466 Vulnerable children	Existing scales adapted in Chinese. Including the LITE-S and six others	China	Boys reported higher traumatic experiences than girls. Aids orphans expressed significantly high future expectation, hopefulness, perceived control over the future than vulnerable children. AIDS orphans are higher on depression and lower loneliness compared to vulnerable children. Psychological outcomes are associated with increased age.	Low
Xu et al (2010) Cross-sectional survey	116 families affected by AIDS 109 non-affected families	Existing scales adapted in Chinese. Including the LITE-S and six others	China	Children in AIDS affected families are low on psychosocial functioning, emotional functioning and school functioning than non-affected families. Awareness of children's status reduces children's scores on emotional and social functioning. Decreased in self-esteem reduces children's emotional, school and psychosocial functioning.	Low
Poulter et al. (1996) Cross-sectional survey	22 households with orphans 66 households with HIV+ caregiver or parent, 75	Existing, standardised scales Questionnaire filled by caregivers	Zambia	Conduct problems was low among all the children. Compared to other children, orphans reported high levels of unhappiness and worry. Economic hardship was not associated with psychological distress.	Low
Bhargava (2005)	Community households without HIV/AIDS. 479 AIDS orphans, 574 orphans by other causes	Existing standardised scales filled by children	Ethiopia	Children orphaned by AIDS reported more social and emotional adjustment problems than other orphans. Female orphans reported more internalising and social adjustment problems than male orphans.	Adequate
Segendo & Nambi (1997) Cross-sectional survey	169 AIDS orphans, 24 non-orphans	Newly constructed, unstandardised measure	Uganda	AIDS orphans showed higher levels of depression and lower optimism about life compared to non-orphans. Younger children living with widowed fathers are more depressed than older children older children living with widowed parents.	Low

Makame et al (2002)	41 AIDS orphans and 41 non-orphans	Newly constructed, unstandardised measure	Tanzania	Compared to non-orphaned children, orphans showed higher internalising difficulties. Age, gender, living apart from siblings and length of time with current caregiver are not associated with psychological distress.	Low
Manuel et al (2002)	76 AIDS orphans and 74 non-orphans	Unstandardised measurement scales	Mozambique	AIDS orphans reported higher depressive symptoms and are unlikely to have a trusted friend or adult. Caregivers depression level correlated with children's depression and negatively with social support.	Low
Gilborn et al (2006)	1258 orphans and vulnerable children	Newly constructed, unstandardised measure	Zimbabwe	Orphans reported higher stress and psychosocial distress, and lower psychosocial wellbeing. Increase age and female gender are associated with higher internalising problems.	Low
Chatterji et al (2005)	1160 children including AIDS orphans, children with sick caregivers and non-affected children	Newly constructed, unstandardised measure	Rwanda and Zambia	In Zambia both AIDS orphans and children living with sick caregivers reported higher distress than non-affected children. In Rwanda, AIDS orphans showed higher distress compared to other children. In Rwanda socioeconomic status and community cohesion were negatively associated with distress outcomes. In both Rwanda and Zambia living with a sick caregiver was a significant covariate of worry and stress.	Low
Wild et al (2006)	81 AIDS orphans, 78 other orphans and 43 non-orphans	Existing standardised children measures	South Africa	Orphans of other caused showed the highest depression and anxiety levels compared to all other children. AIDS orphans did not differ from other orphans or non-orphans. There was no difference on externalising problems. Female gender, greater control from caregivers, poorer neighbourhood regulation, poorer caregiver connection, greater peer connection, greater neighbourhood connection and younger age are associated with higher internalizing problems. Antisocial behaviour was associated with lower caregiver regulation, lower peer regulation and lower neighbourhood regulation.	Adequate
Nyamukapa et al (2006)	5321 children that included orphans and vulnerable children	Newly constructed, unstandardised measure	Zimbabwe	Orphans reported significantly higher psychosocial disorders and symptoms in high intensity than other children. Female gender, living in an urban area, living in poor households and not being related to caregiver are associated with more psychosocial difficulties.	Low

Rotheram borus et al (2001, 2004) Longitudinal study	73 AIDS orphans and 138 children living with HIV-infected parents	Standardised scales	USA	AIDS orphaned children exhibited significantly higher internalising and externalising problems than children living with HIV-infected parents.	Adequate
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Demographic Factors

Among the general population, gender differences in psychological functioning and health are well-documented [101]. During childhood, the prevalence of psychiatric disorders is significantly higher in boys, while in adulthood, women have twice the risk of depression compared to men [25, 102]. In Africa, gender plays an important role in the socio-cultural set up of families and societies. Parenting practices, socialization, roles and expectations differ according to the sex of the child. This makes an investigation into gender difference among orphans on psychological distress critical [103]. Compared to girls, orphaned boys were found to show lower self-awareness and to perform more poorly at school [71, 104].

Sarka, Neckermann & Muller found that households with orphans had more children under 18 years than those without orphans. Orphans and vulnerable children experience frequent interruptions in education and their school fees often unpaid [105, 106, 48]. Children who drop out of school lose the benefit of education as well as school friends. Significantly, many children affected by HIV/AIDS were found not to be attending school and this correlates with increased psychological distress [57, 5].

Risks and Protective Factors

Review of the general literature suggests that possible factors such as socioeconomic status, abuse, social support, family disruption, and stigma may influence psychological difficulties observed in children [56]. Cluver & Orkin argued that food insecurity, stigma and bullying increase psychological symptoms among children in South Africa. In addition, factors that have been identified in the general childhood literature as risks and protective factors for mental health outcomes are presented below.

Poverty and Socioeconomic Factors

There is a growing interest in the international literature in grasping relationship between poverty and its impacts on disease and epidemics [107]. Greener noted that the relationship between HIV/AIDS and poverty or economic standing is dynamic, complex, and a much-debated subject among researchers [108]. Whiteside (2002) and Cohen (2002) proposed that poverty is both a cause and a consequence of HIV/AIDS [109, 110].

Poor socioeconomic standing and poverty increase the likelihood of one's involvement in risky sexual behaviours, early sexual debut, multiple sexual partners and prostitution [111-114]. Response options are limited when HIV/AIDS enters an impoverished family making its impact devastating and severe [115]. Costs of treatment and medical expenses soar up amidst reduced family income as parents stop work because of the illness or because of stigma and discrimination [115, 116]. Despite suggestions that expensive funeral expenses and the grabbing of properties and possessions by greedy adult family relatives leave orphans economically powerless, devastated and confused, there is mixed evidence on how these impact children's mental health [116-118, 53].

Shaver suggested that the relationship between SES and health are inconsistent because of difficulty in collecting SES data, the dynamic nature of SES over time, lack of reliability of measures and inaccurate and misleading interpretations of findings [119]. Some studies failed to find any association between poverty and mental health among orphans [120, 15]. Ainsworth & Over and Foster et al, found that orphans are not psychologically vulnerable compared to non-orphans from equally poor, equivalent contexts. However, the bulk of the evidence suggests that following parental death, there is an association between increased poverty and poor mental health among children [121-123]. The World Health Organisation observed that the increased risk of poor health in developing countries was the result of high rates of poverty in such regions [124]. In Tanzania, orphans were found to suffer more hunger than non-orphans did whilst Foster et al reported inadequate access to shelter, clothing, food and health among orphans compared to non-orphans [55, 125]. Gilborn, Nyonyintono & Wadda also noted that the poor socio-economic situation of orphans makes them vulnerable to adult exploitation and abuse that has direct consequences for the health of children [118, 126, 127]. In Zimbabwe, Ethiopia, Rwanda and Tanzania, AIDS orphans living in poor households and experiencing hunger were found to have high rates of psychological difficulties [17, 89]. HIV/AIDS was observed to have deepened poverty and exacerbated a myriad of deprivations in children in Africa [128]. Poverty becomes deeper in families that take on AIDS orphans after parental death [129]. Most of these families already do not have adequate resources to care for their children and so this makes the already poor families sink deeper into poverty [130, 131]. Poverty discourages children in need and often pushes them to drop out of school [132]. AIDS orphans in China stated a lack of economic support and ways to make money as their main present and future concerns [71].

The relationship between socioeconomic status (SES) and mental health has also been widely investigated. Guthrie suggested that lower SES goes beyond insufficient income and limited material resources. It was suggested that lower SES weakens individuals' ability to cope with challenges and influences all aspects of an individual's behaviour and places them at increased risk of developing psychological and psychiatric disorders [133, 134]. Discrimination against AIDS orphans within households is heightened among families from low SES [135]. Duncan et al indicated that abnormal child behaviours are caused by socioeconomic hardships [133]. Children from low SES have heightened the risk for psychopathology including aggression and vulnerability to rape, abuse and neglect compared to those from high SES [85, 136-138]. In other studies, low SES was linked to increased internalizing problems and impeded development, high rates of drug abuse, alcohol consumption and conduct disorders among orphans and other vulnerable children [138, 139].

Some researchers identified perceived SES as a better predictor of wellbeing outcomes among children because it captures dimensions more than the traditional objective SES. Low perceived SES was also found to show association with increased psychosocial health problems, depression and self-rated health [140]. Low

socioeconomic status and economic hardship is a key stressor for various vulnerabilities and disadvantages among AIDS orphans [124, 141].

Llyod & Blanc, Cluver & Gardner and Ainsworth & Filmer demonstrated that controlling for wealth and SES eliminates psychological differences between orphans and non-orphans [142, 143, 47]. Lundberg & Over concluded that there is no rationale in directing resources in favour of AIDS over other children because the vulnerabilities that they faced are driven by poverty and socioeconomic factors commonly found in other children within the same contexts [144]. The evidence for these postulations are scanty and come from studies that suffer methodological weaknesses including poor assessment measures and often-inappropriate interpretation of findings. There is the need to fully understand socioeconomic situations of children affected by HIV/AIDS and how they impact their mental health.

Domestic Violence and Child Abuse

Varied forms of domestic violence and child maltreatment exist in almost all cultures [145]. Domestic violence encompassing children witnessing parental quarrels, fights and abuses is identified as a factor that places children at risk of developmental problems. Moffitt & Caspi also observed that exposure to domestic violence is a risk factor in childhood psychopathology [146]. Exposure to domestic violence was consistently found to predict internalizing problems in children including post-traumatic stress symptoms [147].

Different categories of child maltreatment are identified to include physical abuse, sexual abuse, psychological abuse and neglect. Rowan and Foy suggested that irrespective of the form of abuse, it is an increased risk for health problems. Recent literature on children, in general, found that child maltreatment is associated with heightened levels of emotional difficulties such as depression, withdrawal, anxiety and dissociation, behavioural problems including delinquency, aggression, antisocial behaviours and conduct problems and the development of high-risk behaviours [148-158]. Lau, Valeri, McCarty & Weisz reported higher mental health problems for children who suffer maltreatment from their parents [159]. Cicchetti & Lynch found that child maltreatment interferes with normal development of children, and increases risks of children developing a wide range of mental health difficulties [160, 161].

Increased levels of behavioural problems are mostly reported for children who experienced physical abuse whilst emotional difficulties are mostly identified among children who suffer psychological abuse or neglect [162, 163]. However, Jouriles & Norwood indicated that externalizing problems are consistently identified among maltreated boys whilst abused girls largely present internalizing difficulties [164].

Beside parental personality types, attitudes, perceptions, practises and values, parental illness and death might also create risks for children to be abused and exploited [160]. Tyler identified poor and negative family environment factors including impaired parent-child relationships and lack of or reduced parental guidance and monitoring as risk factors for child maltreatment. Others include neglectful parenting, family instability, poverty, and poor social support network and isolation [28, 165-167]. Consistently, it has been demonstrated that orphans and other vulnerable children lack adequate care and protection, and frequently live in households

characterized by these negative family environment factors [48, 18, 68, 51, 115]. Other investigators observed that parents and close family members who are entrusted with providing protection, love and care are the very people that consistently abuse and neglect children [168, 169, 52]. The evidence, thus, suggests that children affected by HIV/AIDS parental illness and death might be at heightened risk for abuse and its subsequent negative consequences. In most African countries, physical punishment of children using sticks and belts is virtually a community norm [170]. Yet Dawes et al, noted that there is no reliable data on exposure to or experience of child abuse among families affected by AIDS in developing countries due to poor reporting and recording of abuse incidences [171]. However, there have been suggestions that domestic violence and child abuse in HIV/AIDS affected households are on the increase [72, 172]. It is therefore imperative that childhood maltreatment and domestic violence among these children and its relationship with psychosocial wellbeing are clearly understood, so that necessary and appropriate prevention measures are designed to help the children and their families.

Child Labour

The relationship between child labour and psychological functioning is highly contested [173, 10]. Engagement of children in domestic chores is a common phenomenon in Africa and has been suggested that moderate involvement of children in household duties may not harm their psychological functioning but rather promote social responsibility and a sense of inclusion in children [174, 175]. However, Bevegnu et al, pointed out that child labour increases behavioural disorders almost three-fold compared to controls [176]. In Jordan heightened substance use was noted among child labourers compared to controls and in Kenya, 90% of children engaged in paid labour suffer severe emotional distress including depression, withdrawal and low self-esteem [177, 178]. It has been noted that most children upon parental illness and/or subsequent death assume expanded household chores and adult roles that could be distressing for them [79].

What is not clear is whether children affected by HIV/AIDS are engaging more in work/labour than other children and whether this could increase their vulnerabilities to poor mental health [52]. The presence of HIV/AIDS in a household means that parental roles and responsibilities toward children will be diminished as parents fight the harsh impacts of the disease on themselves. A study in Kenya found that orphanhood increased school absenteeism by 52% to engage in farming, household chores, caring for siblings as well as nursing ill adults [66]. Lyon foresaw the impact HIV/AIDS would have on future children when he suggested that children now become caregivers instead of receiving care, guidance and support [138]. The children are forced, as a matter of necessity, to take up adult responsibilities to ensure the survival of the household [55]. Salaam noted that children affected by HIV/AIDS assume adult domestic roles including. Caring for their siblings and other adult relatives who are sick. It was suggested that taking on parental roles and caring for younger siblings are typical responsibilities of orphans and children made vulnerable by HIV/AIDS [66]. Children gradually become the household decision-makers and the labour head that must cater for the social and economic needs of the family as they witness their parents die slowly of HIV/AIDS [179].

As children act as adults in the absence of adult caregiving, they are eluded by a much needed physical and emotional protection as well as support and guidance: vulnerabilities, which could make

their childhood lives highly traumatizing and stressful [117]. Caring for sick and dying parents is one of the most traumatizing and devastating events for children, and Nyamukapa and colleagues argued that it exacerbates symptoms of psychological disorders [180, 77, 57].

The World Bank noted that with the consequence of reduced parental care due to HIV/AIDS infection, children now work long hours supervising young siblings, doing tedious household chores and engaging in income-generating jobs [121]. In an earlier study, it was suggested that children affected by HIV/AIDS worked more than other children [141]. Budlender & Bosch suggested that engagement in long hours of domestic work are detrimental to children's physical and psychological wellbeing, while Makhoul et al observe that they interfere with children's development. Gaffeo suggested that some children even have to quit schooling to assume roles as parents, carers, nurses and economic providers [181-183].

Although child labour and HIV/AIDS are not identical, both have been consistently associated with poverty, internal migration, abuse and exploitation, lack of good educational opportunities, and development of high-risk behaviours and psychological problems [5, 154-158, 184, 185]. This suggests that child labour might be an important risk factor for mental health problems among orphans in general and children affected by HIV/AIDS. HIV/AIDS and its associated poverty are also suggested to heighten the trend of child labour, both paid and unpaid [186]. Child labour will continue to rise because efforts to reduce it are failing due to the weak legal and educational policies as well as the existing socioeconomic context (poverty, migration etc) within which child labour occurs [185, 187, 188]. Bunnak also suggested that child labour persists because the harmful effect it has on children has been downplayed [99]. Despite the prevalent and increasing nature of child labour in Africa, the relationship between mental health outcomes and child labour among children affected by AIDS has not previously been explored in this context [47].

Stigma and Discrimination

Stigma was long associated with individuals with HIV/AIDS [189-191]. The association of HIV/AIDS with sex and prostitution, homosexuality, promiscuity and the lack of cure makes it a societal taboo in most African communities [192]. Ayrenci observed that in Ghana HIV/AIDS is seen as a result of sexual immorality or a punishment from God for sins of promiscuity that makes infected individuals to be surrounded by shame, rejection and fear [193, 194]. Weitz noted that HIV/AIDS is the most stigmatized illness of all time. There exists an extensive literature on HIV/AIDS as well as HIV/AIDS and stigma. The association between increased HIV/AIDS-related stigma and increased psychological difficulties among infected persons was well-documented [30, 195-197]. Strode & Barret-Grant established the association between poor self-worth and HIV/AIDS-related stigma among infected adolescent youths. Social stigmatization of persons infected with HIV/AIDS and its associated fear leading to denial and non-disclosure of one's status was demonstrated [29, 198, 199].

However, there is a little exploration of the associations between HIV/AIDS-related stigma and mental health outcomes amongst children affected by AIDS [5]. Children would experience stigma and discrimination intensely compared to adults because they often do not know their rights, have no control over their situations, and may

interpret, express and react to stigmatizing events differently [200]. It was suggested that stigma could heighten both the psychological problems and material problems that children experience in the context of HIV/AIDS [134, 201-203]. Bond & Nubani observed that stigma and discrimination hamper the bereavement process after parental death and exacerbate trauma. HIV/AIDS-related stigma and discrimination are noted to come from one's HIV sero-status, HIV/AIDS in the family or AIDS-related poverty [204, 10]. Cluver & Gardner found in a qualitative study, that uninfected children suffer stigma related to their parents' HIV status or death because they were wrongly assumed to be infected too. Children, thus, suffer "courtesy stigma": stigmatization because of one's association with an HIV/AIDS infected caregiver or parental death from the disease [205]. In such instances, appropriate caregivers may be unwilling to provide the needed care and support for children affected by HIV/AIDS for fear that the stigma associated with HIV/AIDS would be directed at them (caregivers) [206].

High levels of stigma and discrimination involving physical assaults, rejection and worse still murder are reported among AIDS orphans and vulnerable children in South Africa [30]. In Kenya, students are unwilling to share accommodation with AIDS orphans [204]. AIDS-related stigma could lead to withdrawal from social support networks and heighten isolation among children [54, 207]. Children may internalize HIV/AIDS-related stigma and discrimination and would avoid all social interactions such as health centres, schools and religious gatherings that they consider as potential stigmatizing situations [197]. Thus, children are further stressed through social isolation and lack community support networks [208]. Internalized stigma is noted to be associated with low self-esteem, anxiety and depression [209].

AIDS orphans in Zimbabwe reported stigmatization in the form of bullying and name-calling from friends and the community [125]. Higher levels of stigma and discrimination were also reported for orphaned children in Rwanda and South Africa, Giese et al found that AIDS orphans were frequently bullied, teased and denied basic services and education [53, 79]. Other studies also confirmed that AIDS orphans and vulnerable children experience stigma and discrimination that leads to social isolation and bullying [10, 127, 79].

The nature, extent and effect of stigma and discrimination vary across cultural and regional contexts [207, 27]. HIV/AIDS prevalence, the stage of the epidemic, distribution of HIV/AIDS cases, political factors and modes of transmission affect how stigma and discrimination operates.

Social Support

HIV/AIDS results in loss of social and family support with direct consequences for children [127, 127]. Social support is found to be associated with mental health [210]. Availability or perception of social support is suggested to enhance the coping skills of orphans and vulnerable children to handle stressing life events and functions to reduce distress and psychological difficulties [211]. Social support is a cost-effective critical resource that buffers the effects of mental illness among children [53, 212]. The availability of support for children in communities affected by HIV/AIDS varies with the prevalence and maturity of the epidemic [213]. Family relatives and neighbours usually sustain the social support system. In high prevalence countries like those in Southern African

countries children witness the death of parents, siblings, relatives and neighbours that overwhelm the traditional support system provided by extended family members and established supportive environment of community network [86]. It is suggested that the traditional support system is collapsing in the region because of the orphan crises [214, 188, 20, 215].

However, in a low prevalence epidemic context like Ghana, there may still be available family and community support to mitigate the impact of the disease on children's psychological wellbeing [216]. Families in low prevalence regions could show considerable resilience in absorbing orphans [217, 218]. However, difficulties in expanding antiretroviral treatment and the high levels of stigma that are attached to the disease in low prevalence areas would result in isolation of infected family members and unwillingness on the part of relatives to offer support when needed. Difficulty in securing a foster parent or caregiver for AIDS orphans were reported in low prevalence regions [128, 129]. Bicego, Rutstein & Johnson documented a decrease in caregiving for AIDS orphans and vulnerable children in both Kenya and Ghana [18]. Clearly, children affected by HIV/AIDS may lack social support compared to non-orphans [5, 219]. Delva et al, also confirmed the sparse social network of friends and low social support from the family for AIDS orphans in Guinea. Social support is located within local cultural and social contexts, and is often impacted by education, church activities, extended family and community members [220-222]. Children who receive adequate support from family, peers and others adapt well psychosocially while those who do not become depressed, lonely and withdrawn. Despite the limited evidence on the association between social support and psychosocial wellbeing, there is urgent need to strengthen the social support system of orphans and vulnerable children within specific contexts to alleviate psychological distress with high cultural variability. Recently an intervention study in Rwanda found that community-based youth mentorship enhanced community connectedness and social protection for children [223].

Debate on Policy for Action

There is growing public health concern about how to alleviate suggested negative impacts of HIV/AIDS on children in families and communities experiencing the epidemic. One school of thought holds that AIDS orphans are psychologically worse off compared to other children [225]. This view argues that AIDS orphans present peculiar needs and heightened mental psychological risks calling for tailored and specialized support and care. This stance further calls for prioritized interventions for AIDS orphans in preference to other children. Many who support this view hold that with limited resources, targeted interventions and care services for those in dire needs are necessary. Okele et al, suggested children orphaned by AIDS have poorer psychological difficulties than other children do and should therefore, be the target for immediately actionable intervention programs [226, 227].

On the other hand, a second school of thought claims that the above view contributes to a one-directional view of the impacts of HIV/AIDS on children [228]. It argues that in the context of HIV/AIDS it is not clear which children are at heighten risk for psychological difficulties and thus need special assistance [127, 131]. Firstly, Bray and Wild et al found that the social consequences of HIV/AIDS make it impossible to single out these children as different from children who live in extreme poverty and other vulnerable conditions [46]. Secondly, their argument is that HIV/AIDS depletes

families and communities, thus, all children are affected. Secondly, the point is made that the evidence suggesting that AIDS orphans are disadvantaged and experience heightened risks for mental health problems is inconsistent, mixed and limited [5, 229, 46, 230]. Finally, they concluded that any attempt in singling them out AIDS orphans for whatever reason would deepen their stigmatization and consequently hamper their wellbeing [5]. This consequently means ignoring equally vulnerable children such as those living with infected parents and relatives. Akwara demonstrated that poverty rather than orphanhood was a good predictor of mental health among children within the context of HIV/AIDS epidemic.

Conclusion

In the context of HIV/AIDS, children are found to suffer anxiety, worrying and fear during parental infection and to express trauma and grief after parental death [136, 231, 82, 204]. Germann found that orphans and vulnerable children experience multiple risk factors, vulnerabilities and stressors that lead to self-pity, poor self-esteem and often with accompanying shattered hope concerning the future [10, 64]. Cluver, Gardner & Operario found that orphans have behavioural and conduct problems as well as suicide thoughts. Although externalizing behaviours have also been identified, Bray and Wild et al argued that children affected by HIV/AIDS are at greater risk of becoming depressed and anxious than of acting out their distress overtly [174, 46]. High levels of depression have been reported among orphans [232].

Compared to other children, orphans were observed to be more depressed, anxious, and less optimistic and to display angry feelings and disruptive behaviours [77, 15, 57]. The depression that orphans and vulnerable children experience can interfere with all aspects of their lives and may lead to energy loss, sadness, and weight changes, feeling of worthlessness, difficulty sleeping or oversleeping, loss of interest in social activities and suicidal thoughts or thoughts about death [22]. It has also been suggested that stigma associated with HIV/AIDS impacts on available social support [70].

Most of these studies, however, are unable to establish if the AIDS-related cause of death of parents confers effects additional to those of parent-bereavement because they compared the plight of so-called, AIDS orphans with non-orphaned children only, without a comparison group of children orphaned by causes other than AIDS. In addition, it has not been established whether or not the impacts of HIV/AIDS on children start far before they are orphaned because prior designs did not include children living with parents who are infected with HIV/AIDS [46, 5, 10, 16, 61, 219, 56, 167, 12]. Although children living with HIV/AIDS-infected parents account for 20% of all the children population in Africa, this particular group of vulnerable children has rarely been studied [48]. Furthermore, this evidence almost entirely came from urban towns in Southern and Eastern Africa and other countries with high HIV/AIDS prevalence (the so-called hardest hit locations of the HIV/AIDS epidemic) with only a few from countries with low or moderate prevalence rates such as Ghana. This prompted the call from Barnett and Clement for work on impacts of HIV/AIDS on children to look further than Southern Africa and the hardest-hit countries [233, 234].

Besides, the findings from these previous works suffered some methodological weaknesses including the utilisation of convenient sampling, small samples that were often less than 100, variations in the use of measurement scales and tools that make comparison across

studies difficult (including Trusting Relationship Questionnaire, Centre for Epidemiological Studies Depression Scale for Children, Children's Loneliness Scale, Trauma Symptom Checklist for Children, Multidimensional Scale of Perceived Social Support, Beck Youth Inventories, SDQ, CDI, CMA-Revised, SDQ, Child PTSD checklist, CES-DC, Depression and Anxiety scales adapted from WHO self-report questionnaire, CBI, Beck Hopeless Inventory, Rosenberg Self-esteem Scale, Future Expectation Scale, Hopefulness about the Future, Perceived Control over Future scale and the LITE-S) and limited information on response rates [10, 15, 46, 55, 62, 77, 93, 95, 120, 235-244].

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