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## **Interventions for improving the psychosocial well-being of children affected by HIV and AIDS. (Review)**

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Interventions for improving the psychosocial well-being of children affected by HIV and AIDS..

*Cochrane Database of Systematic Reviews* 2009, Issue 2. Art. No.: CD006733.

DOI: 10.1002/14651858.CD006733.pub2.

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[Intervention Review]

# Interventions for improving the psychosocial well-being of children affected by HIV and AIDS.

Evelyn King<sup>1</sup>, Mary De Silva<sup>1</sup>, Alan Stein<sup>2</sup>, Vikram Patel<sup>1</sup>

<sup>1</sup>Nutrition & Public Health Intervention Research Unit, London School of Hygiene & Tropical Medicine, London, UK. <sup>2</sup>Child and Adolescent Psychiatry, Oxford University, Oxford, UK

Contact address: Evelyn King, Nutrition & Public Health Intervention Research Unit, London School of Hygiene & Tropical Medicine, Keppel Street, London, WC1E 7HT, UK. [eobirikorang@hotmail.com](mailto:eobirikorang@hotmail.com).

**Editorial group:** Cochrane HIV/AIDS Group.

**Publication status and date:** Edited (no change to conclusions), published in Issue 3, 2009.

**Review content assessed as up-to-date:** 23 December 2008.

**Citation:** King E, De Silva M, Stein A, Patel V. Interventions for improving the psychosocial well-being of children affected by HIV and AIDS. *Cochrane Database of Systematic Reviews* 2009, Issue 2. Art. No.: CD006733. DOI: 10.1002/14651858.CD006733.pub2.

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## ABSTRACT

### Background

As a result of HIV-related mortalities more than 13 million children under the age of 15 have lost a parent due to HIV and AIDS. There are also many children who have HIV-positive parents or primary caregivers; these children are affected by HIV and AIDS and are potentially vulnerable to HIV transmission. Children affected by HIV and AIDS are more vulnerable and face greater challenges to their psychosocial well-being compared to other children of the same age. Interventions have been adopted with the aim of improving the psychosocial well-being of children affected by HIV and AIDS.

### Objectives

The primary objective of this review was to assess the effectiveness of interventions that aim to improve the psychosocial well-being of children directly affected by HIV and AIDS.

### Search methods

Electronic databases were systematically searched using pre-defined search terms. Internet searches of relevant organizations involved in HIV and AIDS work were conducted and experts in the field and were contacted directly. Searches were conducted between January and September 2008.

### Selection criteria

Randomised controlled trials, crossover trials, cluster-randomised trials and factorial trials were eligible for inclusion. If no controlled trials were found, data from well-designed non-randomised intervention studies (such as before and after studies), cohort, and case-control observational studies were considered for inclusion. Studies which included male and female children under the age of 18 years of age, either orphaned due to AIDS (one or more parents died of HIV related-illness or AIDS), or vulnerable children (one or more parents living with HIV or AIDS) were eligible for review.

Interventions that aim to improve the psychosocial well-being of children affected by HIV and AIDS were included in the review. This included psychological therapy, psychosocial support and/or care, medical interventions and social interventions. Psychosocial outcomes were defined as any intervention that measures psychological and/or social factors.

### **Data collection and analysis**

Two of the authors independently screened the results of the search. The full text of all potentially relevant studies were obtained and were independently assessed by the two reviewers using pre-determined criteria.

### **Main results**

No studies of interventions for improving the psychosocial well-being of children affected by HIV and AIDS were identified.

### **Authors' conclusions**

Current practice is based on anecdotal knowledge, descriptive studies and situational analyses. Such studies do not provide a strong evidence base for the effectiveness of these interventions.

### **Implications for research**

This systematic review has identified the need for high quality intervention studies. In order to increase the quality and quantity of such studies there is a need for greater partnerships between program implementers and researchers.

### **Implications for practice**

In the absence of rigorous intervention studies, the body of knowledge available consists of “lessons learned,” child psychological theory and other related research in the adult population. However, such knowledge should not replace the urgent need for rigorous monitoring and evaluation of existing programs and intervention studies to ensure evidence-based practice and policy, and prevent subjecting children to interventions which show no benefit or interventions that could unintentionally lead to harm.

## **PLAIN LANGUAGE SUMMARY**

### **Interventions for improving the psychosocial well-being of children affected by HIV and AIDS**

Many children have lost a parent or have parent living with HIV or AIDS. These children experience greater psychological and social challenges than other children their own age. While there are various programs and interventions that try to improve the psychosocial well-being of these children, no studies were found that rigorously assessed the effectiveness of such interventions.

## **BACKGROUND**

### **Description of the condition**

HIV and AIDS is responsible for the deaths of over 25 million people, and 36.8 million people are currently living with HIV and AIDS (UNAIDS 2006). As a result of HIV-related mortalities, more than 13 million children under the age of 15 have lost a parent due to HIV and AIDS (USAID 2002; UNAIDS 2006). There are also many children who have HIV-positive parents or primary caregivers; these children are also vulnerable and are greatly affected by HIV and AIDS (Foster 2002; Makame 2002; Foster 2006; Ritcher 2006). In the literature, this population of children are referred to as “orphans and vulnerable children,” or “children affected by HIV/AIDS” (UNAIDS 2006). These children have an increased risk of developmental, social, economic, and psychological problems as a result of their parents HIV sero-status (Hunter 1990; Forsyth 1996; Sengendo 1997; Makame 2002;

USAID 2002; Monasch 2004; Atwine 2005; Gregson 2005; Foster 2006).

Children affected by HIV and AIDS are more vulnerable (Andrews 2006) and face greater challenges to their psychosocial well-being compared to other children of the same age (Forsyth 1996; Gilborn 2002; Makame 2002; UNICEF 2003; Atwine 2005; Thurman 2006). Psychosocial well-being may be defined as mental health, social adaptation, or a combination of the two. Specifically, with regard to the population of children affected by HIV and AIDS, psychosocial well-being includes: the ability to cope with the illness or death of a parent through the grieving process (Forsyth 1996); the resilience to deal with the challenges specific to their situation (Ritcher 2006); and the possession of social, emotional, motor, and cognitive skills appropriate for their age and developmental stage so that they can fully participate as members of society, both

now and in the future (Makame 2002; Bhargava 2005).

In order for children to play an integral role in society it is important for them to have stable, supportive, relational environments (Nyambedha 2003; Ansell 2004; Ritcher 2006), opportunities to play and interact with their peers, and access to education (Ritcher 2006). However, children affected by HIV and AIDS experience complex problems specific to their psychosocial well-being as a result of their parents' HIV sero-status (Hunter 2000; Bhargava 2005; Ritcher 2006). These include isolation, difficulty disclosing their parents' HIV status to members of their community, emotional effects of the death (or pending death) of parents, bereavement, stigma related to HIV and AIDS, a loss of childhood due to the additional responsibilities of caring for siblings and parents who are sick with HIV and AIDS, reduced access to social programmes such as schooling, and socioeconomic stress due to the loss of one or both parents as financial providers (Foster 2002; Makame 2002; Nyambedha 2003; Strebel 2004; Bhargava 2005; Nyamukapa 2005; Foster 2006; Howard 2006; Ritcher 2006).

Children affected by HIV and AIDS may also experience subsequently higher rates of HIV infection due to poverty, lifestyle, and other social and environmental factors. (Sengendo 1997; Hunter 2000; Gilborn 2002; Atwine 2005; Gregson 2005). For example, orphans may be more likely to engage in sex at an earlier age, compared to non-orphans (Thurman 2006). Earlier sex debut could be due to depression, hopelessness (Atwine 2005), lack of education, (Hunter 2000; Gregson 2005) sexual exploitation (USAID 2002), lack of adult influence, or financial necessity (Gregson 2005; Howard 2006). The identification of these needs by international organizations (Hunter 2000; Subbarao 2004; Ritcher 2006) has led government donors, Non-Governmental Organisations (NGOs), Ministries of Health, and health care providers to respond to the public health needs of children affected by HIV and AIDS (Ritcher 2006).

### Description of the intervention

This review examined the range of interventions that aim to improve the psychosocial well-being of children affected by HIV and AIDS (e.g. mental health, quality of life). Eligible studies included those evaluating psychosocial interventions (e.g. psychotherapy, psychosocial support programs) and non-psychosocial interventions which may have an effect on psychosocial well-being (e.g. financial schemes, anti-retroviral therapy). Both types of interventions were considered due to their potential to improve the psychosocial well-being of children affected by HIV and AIDS.

### How the intervention might work

Several interventions have been identified for improving the psychosocial well-being and support of children affected by HIV and AIDS (Hunter 2000; Strebel 2004; Howard 2006). Psychosocial interventions have been identified as a means of improving psychosocial well-being and are defined as any intervention that has

a psychological or social mode of action, or a combination of the two (Ritcher 2006). They may promote psychosocial well-being through the use of tools, processes, or programmes specifically aimed at improving, maintaining and preventing compromise in the mental health of children. Physical or material interventions may also promote psychosocial well-being by improving mental health status and by providing the ability to cope with, and participate in, the social environment (Drew 1998; Bhargava 2005; Howard 2006). Focus on physical and material interventions may be effective, especially in certain resource-poor settings where psychosocial well-being is often dependent upon the physical environment. In such environments conceptualizing and identifying the effects of psychosocial interventions may be a challenge (Howard 2006; Ritcher 2006).

In addition to the different types of interventions that aim to improve psychosocial well-being, there are different strategies and approaches to care (Drew 1998; Ritcher 2006). Some strategies focus on clinical individual care, such as psychological therapeutic care and counselling (Lee 2002; Gilborn 2006), while other programs specialize in strengthening families and communities (Drew 1998; Ansell 2004; Horizons; Beard 2005; Foster 2005; Nyamukapa 2005; Howard 2006; Ritcher 2006); or advocate for government protection and the creation of supportive, stable, and enabling environments (Hunter 2000; Ansell 2004; Ritcher 2006; UNAIDS 2006).

### Why it was important to do this review

This is the first systematic review to consider the effectiveness of interventions to improve the psychosocial well-being of children affected by HIV and AIDS.

## OBJECTIVES

### Primary Objective

1. To assess the overall effectiveness of interventions that aim to improve the psychosocial well-being of children affected by HIV and AIDS.

### Secondary Objectives

1. To assess the effect of interventions on different psychosocial outcomes, including mental health; social measures such as education, school attendance and criminal behaviour; quality of life; and socioeconomic status.
2. To assess the effect of interventions on adverse outcomes such as suicide, decreased mental health status, and criminal behaviour.

## METHODS

### Criteria for considering studies for this review

#### Types of studies

Randomised controlled trials, crossover trials, cluster-randomised trials and factorial trials were eligible for inclusion. If less than 2 controlled trials were found, data from well-designed non-randomised intervention studies (such as before and after studies), cohort, and case-control observational studies were included based on the HIV/AIDS Cochrane Review Group policy (Cochrane Collab 2006). The search included the retrieval of published and unpublished studies performed in any country and in any language. Cross-sectional and ecological studies were excluded.

#### Types of participants

Male and female children under the age of 18 years of age, either orphaned due to HIV and AIDS (one or more parents died of HIV related-illness or AIDS), or vulnerable children (one or more parents living with HIV and AIDS) were included in the review. Children were included regardless of HIV status. Children whose parents had other chronic illnesses in addition to HIV and AIDS were also included. Children whose parents have died of non-HIV-related illness were excluded from the review. Studies that included both children who are orphaned or vulnerable as a result of HIV and as a result of another illness were included only if 80% of the sample could be identified as orphaned or vulnerable as a result of HIV and AIDS.

#### Types of interventions

Interventions that aim to improve the psychosocial well-being of children affected by HIV and AIDS were included in the review. Psychosocial outcomes were defined as any intervention that measures psychological and/or social factors. The review included one or more interventions from the following (non-exhaustive list):

1. Psychological therapy, such as cognitive behavioural therapy, interpersonal psychotherapy, psychodynamic therapy, group therapy/family systems approach, non-directive counseling, psychological debriefing and problem-solving therapy

2. Psychosocial support and/or care, such as efforts by individuals and groups outside of the child's usual social networks (e.g. memory work, play, or camp groups) and interventions provided through interpersonal interactions to help with coping (e.g. home-based care).

3. Medical interventions, such as pharmacological drug treatments and interventions as part of a treatment programme for HIV/AIDS

4. Social interventions, such as economic assistance (e.g. cash schemes, work-related training programmes) and material assistance (e.g. housing projects, food and nutrition programmes).

Comparison of outcomes included children affected by HIV and AIDS who have either received:

1. usual care, no care, or placebo;
2. a different intervention (e.g. comparison of two interventions that aim to improve psychosocial well-being);
3. any combination of the above.

#### Types of outcome measures

The primary outcome measure was psychosocial well-being in which either psychological, social or both psychological and social outcomes were measured. These included but were not restricted to:

1. psychological measures, such as mental health status, measured using validated instruments;
2. social measures, such as education and school attendance, quality of life and socioeconomic status measured using validated instruments.

The review also included any adverse effects such as suicide, mental illness, or increased criminal behaviour.

#### Search methods for identification of studies

With the use of a pre-determined search strategy, studies were identified through:

1. Systematic search of electronic databases by a Cochrane Information Scientist using a pre-defined search strategy (PubMed, Medline [1966-date], Embase [1980-date], The Cochrane Library, PsycINFO, LILACS, Social Science Citation Index [1981-date], Science Citation Index [1981-date], International Bibliography of Social Sciences, Web of Science). See [Figure 1](#) for a complete list of the search terms used.

**Figure I. Search strategy**

The following strategy was used to search MEDLINE and adapted for the other databases.

```
#1 Exp Acquired Immunodeficiency Syndrome [MeSH]
#2 Exp HIV Infections [MeSH]
#3 Exp HIV [MeSH]
#4 ("HIV* OR AIDS*")
#5 #1 OR #2 OR #3 OR #4

#6 Exp child [MeSH]
#7 "Orphan" [Text Word]
#8 ((orphan* OR "parent-less child" OR foster* OR "orphans and vulnerable children" OR "OVC")
#9 Foster Home Care [MeSH]
#10 Exp childcare
#11 Exp Orphanages [MeSH]
#12 #6 OR #7 OR #8 OR #9 OR #10 OR #11

#13 Exp Psychosocial Deprivation [MeSH]
#14 Exp Health Promotion [MeSH]
#15 Exp Social Support [MeSH]
#16 Exp Psychology, Social [MeSH]
#17 Exp Mental Health [MeSH]
#18 "psychology" [subheading]
#19 #13 OR #14 OR #15 OR #16 OR #17 OR #18

#20 Exp Social Environment [MeSH]
#21 Exp Health Behaviour [MeSH]
#22 Exp Socioeconomic [MeSH]
#23 Exp Economic [MeSH]
#24 Exp Medicine
#25 ( interpersonal OR psychotherap* OR resilience OR psychosocial* OR care* OR soci* OR bereave* OR
support* OR hous* OR educat* OR program* OR econ* OR work* OR behavi* OR train* OR health* OR
"food" OR nutrit* OR "traditional healer" OR "drug treatment" OR "health care" )
#26 #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25
#27 #5 AND #12 AND #26
```

1. Review of websites and via direct contact with local agencies, research institutions, relevant government departments, and international donors and multilateral agencies involved in HIV care, treatment, and prevention. These organizations included UNICEF, UNAIDS, WHO and USAID.

2. Direct contact with experts in the field for unpublished studies.

Searches were conducted between January 2008 and September 2008.

## **Data collection and analysis**

### **Search for relevant studies**

With the help of the Cochrane HIV/AIDS Group Information

Scientist, the search for relevant studies was executed in a robust and comprehensive manner. The Information Scientist ran the search strategies across the databases' outlined in the Search Methods. MeSH terms were combined with the search strategy. Two reviewers (EK and MD) separately checked the titles and abstracts of the citations identified by the search and determined whether each paper met the pre-determined criteria. Where there was doubt or disagreement, the full article was obtained for inspection. The full text of all potentially relevant studies were obtained and were independently assessed by the two reviewers using a pre-determined Inclusion Flow-Chart (Figure 2). During the review of full-text articles there were no cases of disagreement between the two reviewers.



**Figure 2. Inclusion criteria flow chart**

Study reference #:

Is the study clearly outside the scope of the review? If yes, exclude immediately.

<b>Type of study</b>			
1. Is it randomised, including cross-over, cluster and factorial trials?	Yes ↓	Unclear ↓	No ↓
	Go to question 3		Go to question 2
2. Is it a non-randomised intervention study (before and after study), cohort or case-control observational study?	Yes ↓	Unclear ↓	No ↓
	Go to question 3		Exclude
<b>Participants in the study</b>			
3. Are the participants under the age of 18 years?	Yes ↓	Unclear ↓	No ↓
	Go to question 5		Go to question 4
4. If some of the participants over the age of 18 years, can the data be disaggregated to show that 80% of the sample are under the age of 18?	Yes ↓	Unclear ↓	No ↓
	Go to question 5		Exclude
5. Are participants either orphaned due to HIV or AIDS (one or more parents dies of HIV-related illness or AIDS) OR vulnerable children (one or more parents living with AIDS)?	Yes ↓	Unclear ↓	No ↓
	Go to question 6		Exclude
6. If some participants' parents have died of non-HIV-related illness, can the data be disaggregated to indicate that 80% of the sample were orphaned or vulnerable due to parent dying of HIV-related illness?	Yes ↓	Unclear ↓	No ↓
	Go to question 7		Exclude
<b>Interventions</b>			
7. Does the intervention aim to improve psychosocial well-being of children affected by HIV/AIDS either as a primary or secondary aim?	Yes ↓	Unclear ↓	No ↓
	Go to question 8		Exclude
8. Is the intervention psychological therapy, psychosocial support and/or care, medical and/or social or socioeconomic in nature?	Yes ↓	Unclear ↓	No ↓
	Go to question 9		Exclude
9. Are participants receiving the intervention compared to other children affected by HIV/AIDS who received: a) usual care, no care or placebo and/or b) a different intervention, e.g. comparison of two interventions that aim to improve psychosocial well-being?	Yes ↓	Unclear ↓	No ↓
	Go to question 10		Exclude
<b>Outcomes</b>			
10. Does the study measure psychological and/or social factors i.e. mental health measured by validated instruments or education, school attendance, quality of life, socioeconomic status, suicide or criminal behaviour using validated instruments?	Yes ↓	Unclear ↓	No ↓
	Include subject to clarification of 'unclear' points		Exclude
<b>Final decision</b>			
	Include	Unclear (more info)	Exclude

## RESULTS

### Description of studies

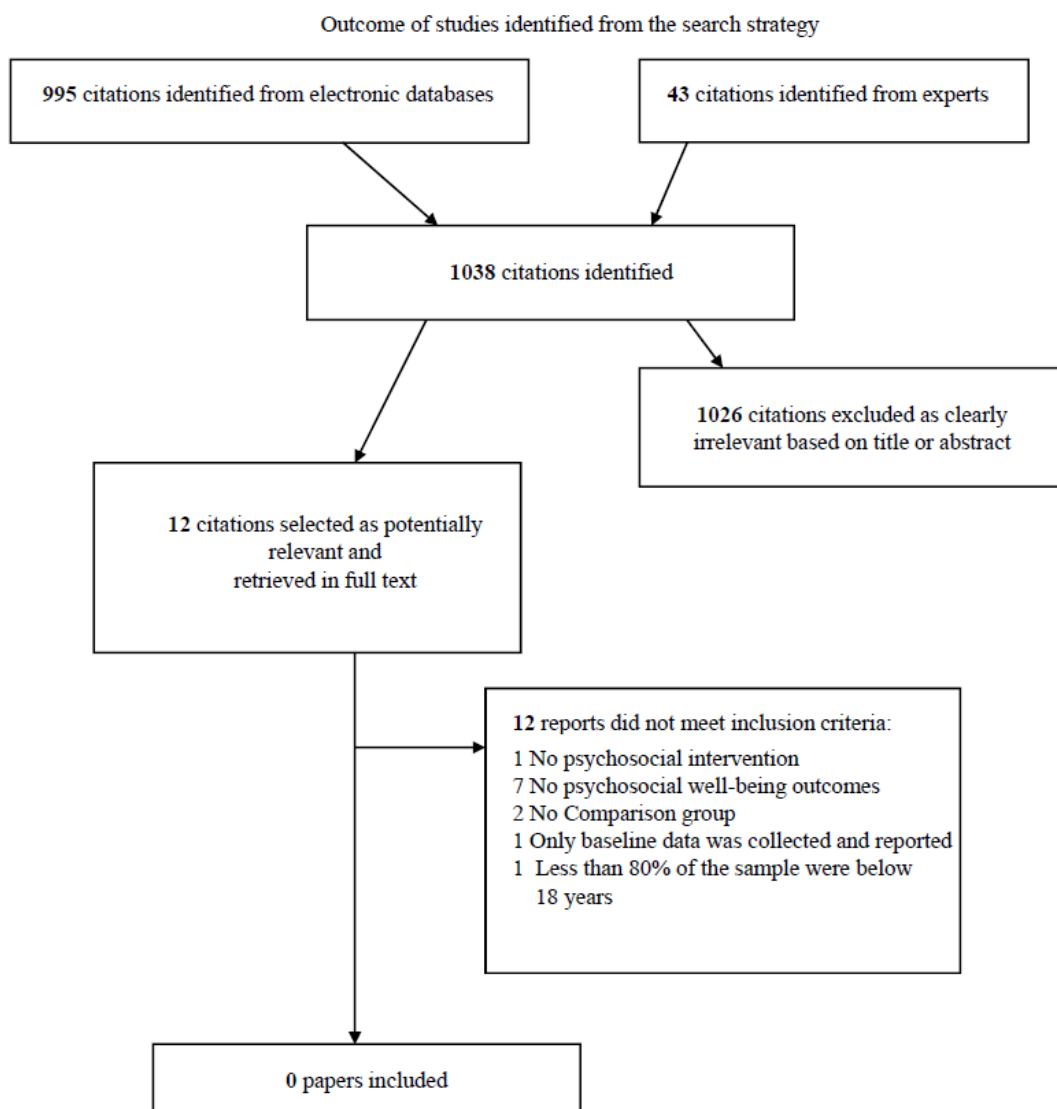
See: [Characteristics of excluded studies](#).

No eligible studies were identified, and no ongoing studies were identified as potentially relevant.

After duplicates were removed, 1038 citations were identified, 995 citations from electronic databases and 43 from experts in the field, directly contacting authors and from reviewing the reference section of the studies retrieved from the database search.

After screening 1038 citations and reviewing the full-text of 12 potentially relevant articles, no articles were eligible for inclusion ([Figure 3](#)).

**Figure 3. Outcome of studies identified from the search strategy**



**Risk of bias in included studies**

No studies found.

**Effects of interventions**

No studies found.

**DISCUSSION**

In this review no studies were found that rigorously evaluate interventions for improving the psychosocial well-being of children affected by HIV and AIDS. Many of the studies considered for inclusion contained a description of an existing intervention aimed at improving psychological wellbeing, but did not report any outcome measures (Adejuyigbe 2006, Dlamini 2004, Drew 1998, Kayombo 2005, Kmita 2002, Ohare 2005, Verma 2006) or did not compare the effects of the intervention to a comparison group (Bhargava 2005, Healthlink 2004). Of the 1038 studies reviewed, only 11 studies clearly defined an intervention administered to the

study population. And of the 12 studies which appeared potentially relevant and which full-text was reviewed 7 of the studies did not include psychosocial well-being outcome measures.

Although none of the studies reviewed met the inclusion criteria, there were three studies which appeared comprehensive and rigorous in approach. These studies included a youth headed household mentoring program (Brown 2007), a succession planning program (Gilborn 2001) and a family empowerment program (Kmita 2002). These interventions all used a family-centered approach which is consistent with anecdotal knowledge of effectiveness in this specific population.

While many studies highlighted the need for future intervention studies, consideration should be given to the possible factors that have contributed to the limited number of intervention studies to date. One factor is that in the study of HIV and AIDS, the review and analysis of psychosocial well-being of children affected by HIV and AIDS is relatively new and therefore many studies are still focused on demonstrating the need for psychosocial interventions in the first instance. In addition, there appears to be the common divide between program implementers who focus on delivering a service or program often in resource-poor settings with limited time for research, and researchers who are challenged with ensuring a high level of rigor in their designs and yet also try to adopt data collection tools which do not impose on the time and resources of program implementers and participants. Another contributing factor to the lack of intervention studies may be the complex nature of psychosocial interventions and possible contamination from other interventions administered in the community. This is of particular relevance in the context of Sub-Saharan Africa where there is a high prevalence of HIV infection which impacts many communities. In such settings, where there are several interventions administered by various agencies, organizations and governments it is difficult to determine a participant's exposure to a specific intervention and consequently the effect of the intervention. Furthermore, psychosocial interventions such as care and support appear to be common in such settings and these types of interventions are difficult to define, specify and measure.

This systematic review aimed to be comprehensive and inclusive of various types of research study designs in order to capture the extent of current knowledge of the effectiveness of interventions to improve the psychosocial wellbeing of children affected by HIV and AIDS.

## **AUTHORS' CONCLUSIONS**

### **Implications for practice**

Current practice appears to be based on descriptive studies and situational analyses. Such studies do not provide a strong evidence of intervention effectiveness.

In the absence of rigorous intervention studies, consideration should be given to child psychological theory as well as studies related to the psychosocial well-being of adults affected by HIV and AIDS. Recommendations and consistent "lessons-learned" from relevant program implementers and experts are also described in the literature and could be considered. However, such knowledge should not replace the urgent need for rigorous monitoring and evaluation and intervention studies to enable evidence-based practice and policy. Specifically, evidence is required in order to prevent subjecting children to interventions which show no benefit or interventions that could unintentionally lead to harm.

The current gap in the literature poses an opportunity for donors and funding agencies to support and encourage rigorous evaluation of psychosocial interventions with the aim of promoting best practice, ensuring cost-effectiveness, and also preventing unintentional harm to children affected by HIV and AIDS.

Based on studies examined in this review there is also a need for context-specific validated tools to measure psychosocial well-being specific to children affected by HIV and AIDS. The limited availability of validated tools may be due to the fact that psychosocial well-being is difficult to measure as it varies with a given socio-cultural context, age and developmental stage. However, the value of developing and validating such tools should not be underestimated as these tools could be instrumental to monitoring the mental-health of a child and could also assist in measuring the effect of interventions that aim to improve psychosocial well-being.

### **Implications for research**

This systematic review has identified the need for high quality intervention studies. In order to increase the quality and quantity of such studies there is a need for greater partnerships between program implementers (Non-Government Organizations, International Non-Government Organizations and multilateral agencies), and social and behavioral researchers to enhance scientific rigor. Such partnerships could lead to context-specific intervention studies, and before and after cohort studies focused on measuring intervention effectiveness.

Through the process of the review it was found that many studies were qualitative in methodology. While such studies provide in-depth insight to the situation, there is a pressing need for quantitative studies which measure the effectiveness or potential adverse effects of such interventions. Similarly, there is an opportunity for a mixed methods approach which incorporates qualitative and quantitative methods.

## **ACKNOWLEDGEMENTS**

We thank the Cochrane HIV/AIDS Group for their support provided including database searches. We especially thank Ms. Tara

Horvath for her assistance with database searches, and assisting with Cochrane guidelines and programs.

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- \* Indicates the major publication for the study

## CHARACTERISTICS OF STUDIES

### Characteristics of excluded studies *[ordered by study ID]*

Study	Reason for exclusion
Adejuyigbe 2006	The study was a prospective intervention study which assessed the effectiveness of care and support provided to sero-positive children of sero-discordant parents compared to sero-positive children who have sero-concordant parents. The intervention in the study did not aim to improve psychosocial well-being and the study did not include an outcome measure of psychosocial well-being. The study did not compare participants exposed to the intervention with a control group who were not exposed to the intervention
Beard 2005	The study was a descriptive review of several programs for vulnerable and orphaned children affected by HIV and AIDS. The review did not include intervention studies
Bhargava 2005	The study aimed to measure psychosocial well-being through exposure to the intervention of schooling. The study was a cross-sectional design and did not measure psychosocial well-being before and after the intervention. The study did not compare participants exposed to the intervention with a control group who were not exposed to the intervention
Brown 2007	The study was a quasi-experimental study which aimed to improve the psychosocial well-being of youth living without adult care through a mentorship program. Less than 50% of the study participants had parents who had died or were infected by AIDS or HIV. Less than 80% of the participant were below the age of 18
Dlamini 2004	The study was a descriptive account of intervention programs for the care of orphans and vulnerable children affected by HIV and AIDS across 3 countries. The study did not include quantitative measures of the outcome of the interventions
Drew 1998	The study aimed to assess community based support programs as an intervention for orphans affected by AIDS. The study was mostly descriptive but also included demographic and programmatic measures such as program cost-effectiveness. The study did not include psychosocial well-being outcome measures related to the participants of the program
Gilborn 2001	The study was a case-control intervention study with psychosocial well-being as an outcome. The study reviewed the effectiveness of an educational, health and nutritional support program and a succession planning program. The study only reports baseline findings and no additional follow-up data (post-exposure to the intervention) was provided
Healthlink 2004	The study was a descriptive evaluation of an intervention project which included succession planning, life skills education, peer activities and community-based activities. The study did not include quantitative outcome measures and did not compare participants exposed to the intervention with a control group who were not exposed to the intervention
Kayombo 2005	The study reviewed psychosocial interventions provided by traditional healers to orphans and vulnerable children affected by HIV and AIDS. The study described basic demographic information about participants. No quantitative psychosocial well-being outcome measures were provided
Kmita 2002	The study reviewed and compared two different settings in which the psychosocial intervention of psychotherapy and counseling were administered to children living with HIV and AIDS. There were no quantitative outcome

(Continued)

	measures. The author was contacted and declared no other quantitative data from the study
Ohare 2005	The study was a descriptive account of a hospital-based intervention aimed at improving the physical, psychological and social well-being of children and families infected by HIV. The study describes demographic and programmatic data however, no psychosocial well-being outcome measures were reported
Verma 2006	The study was a descriptive case report regarding the social rehabilitation of 2 sero-positive children whose parents have died due to AIDS. No quantitative outcomes measures were described



## DATA AND ANALYSES

This review has no analyses.

## WHAT'S NEW

Last assessed as up-to-date: 23 December 2008.

Date	Event	Description
12 May 2009	Amended	Re-formatting images for Figures.

## HISTORY

Protocol first published: Issue 3, 2007

Review first published: Issue 2, 2009

Date	Event	Description
13 January 2009	Amended	Finalisation of draft for peer review
23 December 2008	Amended	Substantive edition to the review
22 December 2008	Amended	Converted to RevMan 5 and re-published without new citation.
22 May 2007	New citation required and major changes	Substantive amendment

## CONTRIBUTIONS OF AUTHORS

EK was responsible for coordinating the overall review process, the collation of review papers, reviewing papers, writing the review and for communication with co-authors regarding their feedback.

MDS was responsible for reviewing papers and writing the review.

VP and AS were responsible for commenting on all stages of the review process, confirming the inclusion of key papers in the area, and writing the review.

## DECLARATIONS OF INTEREST

None known.

## SOURCES OF SUPPORT

### Internal sources

- No sources of support supplied

### External sources

- ESRC/MRC Interdisciplinary Post-Doctoral Fellowship, UK.
- Wellcome Trust Senior Clinical Research Fellowship in Tropical Medicine, UK.

## INDEX TERMS

### Medical Subject Headings (MeSH)

Acquired Immunodeficiency Syndrome [psychology]; Adolescent; Child of Impaired Parents [psychology]; Child Welfare [\* psychology]; HIV Infections [\*psychology]

### MeSH check words

Child; Child, Preschool; Humans