

Effects of HIV/AIDS on Children in Developing Countries

Ashley Davis

Dr. Walters

University of Georgia

## Effects of HIV/AIDS on Children in Developing Countries

### **Research Question**

What are the effects of HIV/AIDS on children in developing countries when their parents have the disease and if they have become orphans due to AIDS?

**Key Words:** HIV/AIDS, Children, effects, orphans

### **Abstract**

HIV/AIDS is currently a major issue for children in many developing countries. Many children have become orphaned due to HIV/AIDS or they have suffered health consequences due to the disease. There are a number of different risk factors that children have for contracting HIV/AIDS, like where they live and if they go to school. Children can be affected both if they have the disease or if their parents have it. HIV/AIDS has led to many psychological and behavioral deficits in children especially in developing countries, like Africa. In order to find research, the University of Georgia Libraries was used to conduct a number of different searches. The main databases used were Global Health, Web of Science and the “multisearch” on the UGA Library homepage. Many of the articles explained different factors that affected children contracting HIV/AIDS and the consequences they are at risk for like growth deficits, depression and other psychosocial issues. The articles came to the conclusion that HIV/AIDS negatively affects children even if they don’t have the disease. Children are at increased risk for becoming orphans, having behavioral deficits, psychological issues and growth problems because of the stigma surrounding HIV/AIDS in these communities. All of these are reasons why researchers are looking into how children are being affected by HIV/AIDS, especially in developing countries, where HIV/AIDS is most prevalent.

## **Introduction**

Over the past decade researchers have been focusing increasingly on Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) and how the diseases effects children (AIDS.gov, 2016). HIV is a disease that attacks the body's immune system by reducing the number of CD4 cells, which causes the body to become more susceptible to infections. Overtime, if left untreated, HIV can turn into AIDS which is the final stage of HIV infection (AIDS.gov, 2016). HIV/AIDS is a progressively important issue in children with 240,000 children affected by the disease in 2013 and 700 new cases each day (AVERTing HIV and AIDS, 2016). Children are at risk for obtaining HIV if their mothers are infected with HIV/AIDS, if they are sexually active and if they are doing drugs by needle injection. All of these things put children, especially those in developing countries, at increased risk of developing HIV/AIDS (AVERTing HIV and AIDS, 2016). Another way that children are indirectly affected by HIV/AIDS is if their parents die from the disease and they become orphans. This has been recorded to cause a number of deficits in children ranging from not growing properly to poor performance in school (Beegle, Weerdt, & Dercon, 2009). Sub-Saharan Africa is found to have the highest prevalence of HIV/AIDS around the world, which is why many of the articles in this literature review focus on this geographic region. This is mainly due to the fact that people do not understand the risks of HIV and do not practice safe sex (AVERTing HIV and AIDS, 2016).

Although there is a risk for children developing the HIV, they are mostly affected by HIV/AIDS when either one or both of their parents is infected with it. Children who become orphaned due to HIV/AIDS are much more likely to experience stress and behavioral deficits (Doku & Minnis, 2016). There are currently 2.3 billion children who have become orphans in

Africa due to the HIV/AIDS disease (AVERTing HIV and AIDS, 2016). Although in recent years many research groups have been going to South Africa and providing education to communities on HIV and helping those affected by HIV/AIDS, it still remains a major issue. HIV/AIDS is present in the largest number in Africa but many other developing countries are still experiencing the effects of HIV/AIDS (AVERTing HIV and AIDS, 2016). Because previous research on the topic and the fact that HIV/AIDS has been found to negatively impact children directly as well as indirectly, finding out the effects of HIV/AIDS on children has become very important to many researchers (AIDS.gov, 2016). This literature review will discuss the effects of HIV/AIDS on children while considering different sociodemographic factors.

### **Methods**

The research started with the University of Georgia Library's webpage. Three different search types were utilized to find majority of the articles. Then to find relevant background information on the topic, google was used to find accurate sources like ".gov" and ".org". The sources posted by the government were determined to be the most accurate, so those were the ones that this literature review focused on.

The first search was conducted by typing "HIV/AIDS AND children" into the "multisearch" of the UGA Library webpage. The results found articles about how children were generally affected by HIV/AIDS in different countries, most of them developing. The search of over 20,000 results was refined by using the peer-reviewed and journal article selections. The results were further narrowed by selecting the age group and the regions where HIV/AIDS rates were high. The search then yielded 2,000 results that were more specific to the research requirements. The next search performed used the Global Health database under the Public Health tab, on the UGA Libraries webpage. Search terms included "HIV/AIDS in children" and

“effects of HIV/AIDS on children” were used to find the search results. Here the search was refined by region to look at how HIV/AIDS was affecting children in specific areas of the world and how it differed from country to country. The final search tool used was the Web of Science database. Key terms like “orphaned children due to aids” and “effects of HIV/AIDS on children” were used to yield the search results.

## **Results**

Over the course of the research three major findings were discovered. The results section of this review divides the articles into three sections where the researchers found similar results. The first conclusion was that children who had become orphans due to HIV/AIDS were more likely to experience a lower mental health status. The second is that HIV/AIDS causes children to experience different mental health outcomes based on the region the children live in and what they are exposed to. Finally, the researchers found that children with a support group were less likely to experience the negative stigma around HIV than those who are alone.

### *Orphans are at increased risk for mental disorders from HIV*

A number of the articles found that children who become orphans due to HIV/AIDS were more likely to experience psychological deficits. The orphan population, especially in Africa, has been growing and many children are at a higher risk for mental disorders because of their parents dying from AIDS. Many of the studies showed that orphans are more likely to experience depression, mood disorders and psychosocial disorders than other children (Doku & Minnis, 2016). This is mainly due to the stigma that surrounds the HIV/AIDS pandemic. When children become orphans due to their parents having HIV/AIDS the shame around the disease falls on the children. One cross-sectional study showed that children who lost their parents, especially their mothers, due to HIV/AIDS were more likely to have growth deficits and not finish as many years

in school (Beegle, Weerdt, & Dercon, 2009). Related to the last study mentioned, children who lost both of their parents due to either HIV/AIDS or genocide were also more likely to experience a decrease in mental state because of the pressures allocated on the affected children. There is a negative stigma that is placed on the children when their parents die due to HIV/AIDS and this is why children orphaned due to the disease are more likely to be at risk for mental disorders than children who become orphans due to other causes (Caserta, Pirttila-Backman, & Punamaki, 2016). Children who become orphans due to HIV/AIDS are two to three times more likely to become infected with HIV themselves than those who are not orphans (Kidman & Anglewicz, 2016). Orphans are at an increased risk for many mental, social and physical deficits due to the stigma around the disease and the fact that they have lost both parents due to HIV.

#### *Sociodemographic factors around HIV influence children*

Researchers found that certain environments cause children to be more susceptible to HIV, which then leads to a lower state of mental health. Many of the articles focused on researching children in different areas and environments. Most of them found that children on the streets were more likely to contract HIV because of how they were living and the risky behaviors that they were participating in (Uddin, Sarma, Wahed, Ali, Koehlmoos, Nahar, & Azim, 2014). The articles used cross-sectional surveys to find the different sociodemographic factors that leave children vulnerable to HIV/AIDS. The two main findings the researchers discovered that effects the children was their financial stability at home and if the child was able to attend school (Chanda-Kapata, Klinkenberg, Maddox, Ngosa, & Kapata, 2016). These factors were taken into account in many different surveys but one focused specifically on the demographics of the child. They found that if the child was able to attend school and had better financial stability the child was much less likely to contract HIV than children in other situations

(Chanda-Kapata et al., 2016). Children who are on the streets or in environments that have poor health conditions and no social support are much more likely to feel the stigma around HIV/AIDS and they are also more likely to contract the disease.

*Children have better health outcomes when they have social support*

Many researchers have found that children who have a support system they can confide in are both less likely to get HIV/AIDS and they deal with the disease better if they have it. The researchers brought children whose parents were diagnosed with HIV/AIDS into a support group. The children in the group had experienced the stigma around their parent's HIV and the support group was there to help the children talk about their feelings and act as an outlet for them. The researchers found that the children, after the support group, listened better at home and had a better overall relationship with their mothers (Eloff, Finestone, & Forsyth, 2016). Children who have been exposed to HIV/AIDS are less likely to be exposed to mental health problems from the stigma around the disease if they have family members or friends that show them support. This was shown in two different studies and both of the outcomes showed that the children have a more positive relationship with their parents and less psychosocial problems than if they were isolated and had no one to talk to (Wang, Li, Barnett, Zhao, Zhao, & Stanton, 2012). When social workers were present in the communities and worked with some of the children they were more likely to stay in school than other children. The children that received help from the social workers also were found to have better access to healthcare, which led to better health outcomes (Muriuki & Moss, 2016). Children are less likely to contract HIV if they have a strong support group and relationships that they can confide in.

**Summary of the articles used (Table 1.1)**

	Author	Year	Article Title and Journal	Purpose of Article	Sample Info	Type of Research	Research Findings	Limitations of Article
1	Uddin, M. J. Sarma, H. Wahed, T. Ali, M. W. Koehlmoos, T. P. Nahar, Q. Azim, T.	2014	Vulnerability of Bangladeshi street-children to HIV/AIDS: a qualitative study	The article discussed how children in poverty are at a higher risk for developing STI's and HIV because of their risky behaviors.	Children age 5-12 & 11 different geographic areas	Cross-Sectional research (survey)	The researchers found that undesirable living conditions made the children much more susceptible to diseases like HIV/AIDS.	The sample size was one limitation and the researchers were at the liberty of gaining information only from what the children would tell them.
2	Eloff, Irma Finestone, Michelle Forsyth, Brian	2016	HIV/AIDS infected mothers' experience of a group intervention to enhance their children's behavior  South African Journal of Education	This article discussed the advantages and disadvantages of having a support group for mothers and children in South Africa who are affected by HIV/AIDS.	139 children from two different regions in Africa, who do not have HIV themselves but their mothers are HIV positive.	Cross-Sectional research (survey)	The article concluded that the children who attended the support group had less behavioral and mental challenges from the disease than the ones who did not attend the group.	The limitations on the study were if the mothers and their children even continued to show up to the group. The sample was only conducted from two regions in Africa.
3	Wang, Bo Li, Xiaoming Barnett, Douglas Zhao, Guoxiang Zhao, Junfeng Stanton, Bonita	2012	Risk and protective factors for depression symptoms among children affected by HIV/AIDS in rural China: A structural equation modeling analysis	The article talked about the correlation between children having HIV/AIDS and the same children having increased symptoms for depression.	The subjects in the study were 755 orphaned children, the children had lost at least one parent to AIDS, and 466 children	Cross-Sectional Research (survey)	After the researchers performed different studies they concluded that children who are affected by HIV/AIDS are more likely to experience depression and other mental health issues	The limitations on the study included that they lost some of the initial population throughout so the data was skewed.

			Social Science & Medicine		with at least one parent who currently was living with AIDS.		because they did not have trusting relationships.	
4	Beegle, K. Weerd, J. de Dercon, S.	2009	The intergenerational impact of the African orphans crisis: a cohort study from an HIV/AIDS affected area  International Journal of Epidemiology	This article discussed how children who are affected by HIV/AIDS are more likely to become orphans and this affected the child's development and how they transition into their adult life.	The researchers started by finding a population of 718 children in sub-Saharan Africa	Cross-Sectional Research (survey)	The study found through their research that children who lost their parents, particularly their mother, experienced growth deficits and did not complete as many years in school.	The limitations included the fact that the initial children interviewed may have died too. The sample size was only conducted over a certain area.
5	Chanda-Kapata, P. Klinkenberg, E. Maddox, N. Ngosa, W. Kapata, N.	2016	The prevalence and socio-economic determinants of HIV among teenagers aged 15-18 years who were participating in a mobile testing population based survey in 2013-2014 in Zambia  Bmc Public Health	This article talks about all the different social determinants of health and how they are related to the likelihood of a person contracting HIV/AIDS in Zambia.	6,395 teenagers aged 15-18 years where 2,532 declined HIV testing, 44 tested positive and 3,806 tested negative	Cross-Sectional Research (survey)	Teenagers with two parents were less likely to contract the disease and they were also less likely to get it if they attend school and had better financial stability.	The limitations of this study included that a number of the participants they were counting on declined participating in the study.

6	Doku, P. N. Minnis, H.	2016	Multi-informant perspective on psychological distress among Ghanaian orphans and vulnerable children within the context of HIV/AIDS  Psychological Medicine	In this study the researchers compared the psychological well-being of children in Ghana who have become orphans due to HIV/AIDS and those who are not orphans.	291 children and their caregivers	cross-sectional survey	The results showed that children who were orphaned by HIV/AIDS were at an increased risk for developing mental health issues. Many of the children exhibited symptoms of depression and other psychological disorders.	The sample size of this study was relatively small and depended on the children reporting their own experiences.
7	Kidman, R. Anglewicz, P.	2016	Are adolescent orphans more likely to be HIV-positive? A pooled data analyses across 19 countries in sub-Saharan Africa  Journal of Epidemiology and Community Health	The article talked about how children who are orphans may be at a greater risk for developing HIV/AIDS. There are numerous reasons why children who are orphaned are at a disadvantage and HIV/AIDS is just one of them.	Adolescents aged 15-17 years Demographic and Health Survey data from 19 countries N=22 837 girls and 20 452 boys	Demographic and Health Survey	In both boys and girl's children who had lost either both their parents or just one to HIV/AIDS were two to three times more likely to experience HIV/AIDS infection than those who did not. The loss of a father was not found to increase the risk of HIV/AIDS as much as the loss of a mother did.	The researchers didn't take into account the disparities that the children might have been experiencing.
8	Caserta, T. A. Pirttila-Backman, A. M. Punamaki, R. L.	2016	Stigma, marginalization and psychosocial well-being of orphans in Rwanda: exploring the	The article discussed the stigma around children in Rwanda who have become orphans due to many different causes and it also	A group of 430 orphans from age 10-15 living in four different types of environments	Cross-Sectional Survey	The researchers concluded that children who have become orphans are much more likely to experience more mental distress and among these orphans	The limitations were a small sample size as well as only picking children from certain geographic areas in Rwanda.

			mediation role of social support	talked about some of the major challenges that they face.			if the cause is due to HIV/AIDS they are even more likely to have a lower-level of emotional well-being.	
9	Muriuki, Andrew M. Moss, Tamarah	2016	The impact of para-professional social workers and community health care workers in Côte d'Ivoire: Contributions to the protection and social support of vulnerable children in a resource poor country  Children and Youth Services Review	The study aimed to find out how helpful social workers in the community were in protecting the physical and psychological well-being of children in Côte d'Ivoire.	314 children received the support and 213 children were the control	Cross-Sectional survey	In the study the researchers found that the children with the PSWCHW support were 50% more likely to attend school than those who didn't have their support. They were also able to help the children have increased access to healthcare which in turn improved their health status.	The survey was restricted to those in the Save the Children program. The control group have knowledge of the support group that was happening in the same community.

## **Discussion**

All of the research included in this literature review found that HIV/AIDS has a negative impact on children because it increases their likelihood for decreased mental, physical and social health status. There were three overarching findings of the research, the first found that children who became orphans due to HIV/AIDS are more likely to experience health problems (Caserta, Pirttila-Backman, & Punamaki, 2016). The second major finding was that different environments determine the level of risk that the child is exposed to for both contracting the disease and health issues (Uddin et al., 2014). The final conclusion of the research was that children with social support were more likely to have better health than those who did not have a support system (Eloff, Finestone, & Forsyth, 2016). Although all the articles concluded that HIV/AIDS has a negative effect on children, each of the researchers came to their conclusions in a different way by looking at different factors. Each of the studies took into account different demographic circumstances like where they lived, how many of their parents had HIV, if the children attended school as well as the age of the children. Many of the researchers focused on orphans because the orphan population in Africa is rising due to HIV/AIDS. Children who either have the disease, or whom have lost their parents to the disease are exposed to the stigma that surrounds HIV/AIDS. They are therefore more susceptible to depression, growth deficits and social challenges because of the stigma around the disease.

Many of the articles used in this literature review were cross sectional surveys, this means that the children were asked questions and the children responded about their feelings after the events had already happened. In the future, researchers should consider following a group of children from the time they were born and before their parents have contracted HIV to

tell how their quality of life changed as they began to be affected by the disease. Many of these studies assumed that the negative health outcomes of the children were caused by HIV/AIDS but few actually followed the children from the beginning they just asked the children questions after. Many of the children included in the studies were above age 5, it might be useful for the scientists to follow children from a younger age and just monitor their physical health. A prospective study might be helpful to get a wider range of data from the children and it may be more precise than asking the children to recall events that happened to them in the past because this is where error can occur.

The articles attempted to cover many different sociodemographic factors but many of them focused on orphans living in the streets because this is where the effects of HIV/AIDS seemed to be the worst. Future researchers may focus on other aspects as well like single parent homes or homes where children have both of their parents and have a higher quality of life. Many of the articles came from Africa because this is where the prevalence of HIV/AIDS is the worst. In the future scientists might also want to look at other developing countries where the prevalence of HIV is also high. The studies mainly focused on children who were indirectly affected by HIV/AIDS but in the prospectively researchers should look at how children who have contracted HIV/AIDS are being affected. If children feel the stigma from their parents having the disease, then the effects on them may be even worse if they have it. This literature used very similar regions and populations for the articles but it might also be helpful to consider other developing countries and sociodemographic situations that children may be in.

This literature review had a number of different limitations. The main limitation is that mostly all of the studies were cross sectional surveys, this means that there was no variation in the way that the data was collected. Because all the of data was collected in the same way it leads

to the results section having only specific findings based on surveys and people answering the questions. Additionally, the fact that all of the research was collected by self-reporting surveys influenced the results because the children might not have been telling the truth or they might have changed the information slightly. Another limitation to the study is that a limited number of articles were selected for the literature review. Since there were limitations on the length of the paper, only a certain number of articles could be included. This limited the review by not including other articles that might have had relevant information. The literature review was restricted based on both the type of survey conducted and the number of articles included. Therefore, there was not as much variation in the results and the articles did not cover a wide range of data.

HIV/AIDS is currently a major issue in many developing countries, especially Africa. A large portion of the population has become orphans due to the AIDS pandemic. Researchers found that HIV/AIDS is currently a major problem for many children, especially those living in Africa. There is a large stigma around the disease and the children's health is at risk because of because of the pressures that the stigma places on them. Children have experienced growth deficits, increased depression, and spend fewer years' in school due the effects of HIV on their lives. Children who are orphans are at a much higher risk for decreased health then children who still have both of their parents. As mentioned in the discussion section of this literature review there is still room for improvement in finding all of the reasons why children are at a high risk for decreased health due to their parents having HIV/AIDS.

### References

- AIDS.gov. (2016). What Is HIV/AIDS? Retrieved from <https://www.aids.gov/hiv-aids-basics/hiv-aids-101/what-is-hiv-aids/>
- AVERTing HIV and AIDS. (2016). Children and HIV/AIDS. Retrieved from <https://www.avert.org/professionals/hiv-social-issues/key-affected-populations/children>
- Beegle, K., Weerdt, J. d., & Dercon, S. (2009). The intergenerational impact of the African orphans crisis: a cohort study from an HIV/AIDS affected area. *International Journal of Epidemiology*, 38(2), 561-568.
- Caserta, T. A., Pirttila-Backman, A. M., & Punamaki, R. L. (2016). Stigma, marginalization and psychosocial well-being of orphans in Rwanda: exploring the mediation role of social support. *Aids Care-Psychological and Socio-Medical Aspects of Aids/Hiv*, 28(6), 736-744. doi:10.1080/09540121.2016.1147012
- Chanda-Kapata, P., Klinkenberg, E., Maddox, N., Ngosa, W., & Kapata, N. (2016). The prevalence and socio-economic determinants of HIV among teenagers aged 15-18 years who were participating in a mobile testing population based survey in 2013-2014 in Zambia. *Bmc Public Health*, 16, 7. doi:10.1186/s12889-016-3449-3
- Doku, P. N., & Minnis, H. (2016). Multi-informant perspective on psychological distress among Ghanaian orphans and vulnerable children within the context of HIV/AIDS. *Psychological Medicine*, 46(11), 2329-2336. doi:10.1017/s0033291716000829
- Eloff, I., Finestone, M., & Forsyth, B. (2016). HIV/AIDS infected mothers' experience of a group intervention to enhance their children's behavior. *South African Journal of Education*, 36(2), 1-10. doi:10.15700/saje.v36n2a1285
- Kidman, R., & Anglewicz, P. (2016). Are adolescent orphans more likely to be HIV-positive? A pooled data analyses across 19 countries in sub-Saharan Africa. *Journal of Epidemiology and Community Health*, 70(8), 791-797. doi:10.1136/jech-2015-206744
- Muriuki, A. M., & Moss, T. (2016). The impact of para-professional social workers and community health care workers in Côte d'Ivoire: Contributions to the protection and social support of vulnerable children in a resource poor country. *Children and Youth Services Review*, 67, 230-237. doi:<http://dx.doi.org/10.1016/j.childyouth.2016.06.018>

Uddin, M. J., Sarma, H., Wahed, T., Ali, M. W., Koehlmoos, T. P., Nahar, Q., & Azim, T. (2014). Vulnerability of Bangladeshi street-children to HIV/AIDS: a qualitative study.

Wang, B., Li, X., Barnett, D., Zhao, G., Zhao, J., & Stanton, B. (2012). Risk and protective factors for depression symptoms among children affected by HIV/AIDS in rural China: A structural equation modeling analysis. *Social Science & Medicine*, 74(9), 1435-1443. doi:10.1016/j.socscimed.2012.01.007