"We Have to Do Something for Ourselves": Using Photovoice and Participatory Action Research to Assess the Barriers to Caregiving for Abandoned and Orphaned Children in Sierra Leone

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Abstract

The purpose of this qualitative participatory action research study was multi-fold: first, to identify the ecological factors which impede and promote health and well-being among orphaned and abandoned children in Sierra Leone; second, to facilitate Photovoice, a participatory action research method, among NGO workers to identify barriers to caregiving for orphaned and abandoned children; and third, to build organizational and community capacity to bring about social change. The purposive study sample was comprised of ten NGO workers, all natives of Sierra Leone. The participants were trained by the researchers to use digital cameras to capture data using Photovoice methods. Participants presented their chosen photographs and interpretations to the primary researcher by way of individual interviews and follow-up discussions. Data was transcribed by the researchers and analyzed by participants and researchers using the constant-comparative method to identify the significant themes and patterns that emerged. Emergent themes were categorized as impeding or promoting factors or as an action item. An action plan was prepared by the NGO workers and executive director and shared with the researchers after the data was analyzed. The overarching impeding theme of extreme poverty and its subthemes along with proposed action items are discussed in this paper. Findings illuminated the realities of NGO workers providing care for abandoned and orphaned children in Sierra Leone as well as the socio-ecological barriers and supports impacting child survival and development. This study also serves as a case study for how digital technology can be used as a tool to empower communities and organizations to advocate for change.

Introduction

Although blessed with ample natural resources, Sierra Leone, a small West African country, is home to some of Africa's greatest social, economic, environmental, and health related-ills. To date, Sierra Leone is ranked 177th out of 177 countries as the world's least developed country.[1] These challenges threaten the future of over 300,000 orphaned and abandoned children living there. To date, there is a paucity of empirical research exploring Sierra Leone's threats to child/maternal health as well as research utilizing culturally competent, community based methods. The purpose of this participatory action research study was to examine factors which impede and promote the health and well-being of orphaned and abandoned children in Sierra Leone as identified by caregivers employed by an international non-governmental organization [NGO].

To understand the threats to child survival in Sierra Leone, one must first examine its history. Sierra Leone was established as a British colony in 1808. In April 1961, Sierra Leone received its independence .[2] However, this feat has caused the country great turmoil. After independence, the country fell into the hands of corrupt leaders, government, and corporations. Sierra Leone suffered from a decade-long civil war between 1991 and 2001. Prior to its declaration of independence, Sierra Leone modeled a peaceful existence among people from different cultures, backgrounds, and religions.[2] The Sierra Leonean War (1991-2001) resulted in 75,000 fatalities, 5,000 upper-limb amputations, an estimated 500,000 refugees, and thousands of orphaned and abandoned children.[3]

The Impact of Civil War

During the ten-year civil war in Sierra Leone, children were abducted and forced to witness and participate in unspeakable war violence including killing, rape, and torture.[3] Other children living in Sierra Leone faced enormous obstacles, which threatened healthy development. Obstacles included inadequate nutrition, separation from family and friends, interruption of education and the death of parents and siblings.[4] Though the country is at peace today, the instability of the country's youth continues to remind Sierra Leone of the country it once was and the violence it endured in the name of revolution.

Though little is published about this country in the literature, there are a number of ecological factors which threaten children's futures in Sierra Leone. First, Sierra Leone is home to the world's highest child mortality rate and one of the world's worst infant mortality rates.[5] Second, access to clean water is limited in Sierra Leone. Only 57 % of the country has access to sanitary water sources.[5] A third factor threatening the future of children in Sierra Leone is the low school enrollment rates among boys and girls. The school enrollment for both primary and secondary education is 68.5 % and 16.9 % respectively.[6] Limited school enrollment contributes to the fourth factor, a low literacy rate. The youth male literacy rate of Sierra Leone is 60 % and 37 % for females.[5]

Few studies have investigated barriers to health and well-being of children living in Sierra Leone. DeJong and Kleber[7] and Denov and Maclure[8] examined mental health concerns of child soldiers reuniting with family, friends, and community after Sierra Leone's civil war. Denov and Maclure[8] focused primarily on the lived experiences of young, female child soldiers and recounted the atrocities they experienced. Young, female child soldiers not only endured the trauma of committing acts of extreme violence, but the young girls were also victims of sexual violence. The young females were forced to kill civilians and forced to have repeated sexual relations. Girls fell victim to rape, gang rape and rape with objects.[8] Child soldiers were first resistant against committing violence, but over time, particularly among the girl combatants, the children gave into the violence as a way to avoid harassment from the army commanders.[8]

DeJong and Kleber[7]also examined the mental health status of child soldiers and their ability to re-adapt to living in a war-free Sierra Leone and families again. The researchers highlighted the difficulty that children and families experience as re-integration into post-war Sierra Leone continues. Although looking at the mental health of the children of Sierra Leone is necessary, it might also provide a limited understanding of the negative impact war has on the children. Both studies concluded that the need for better child welfare programming is needed. Both studies also recommended that participatory action research be conducted to involve community members and improve the services provided by existing organizations.[7, 8]

Role of Non-Governmental Organizations

The orphaned and abandoned children of Sierra Leone do not receive support from the government; therefore, non-governmental relief organizations act

as lifelines, providing necessary care to these children. The importance of NGOs to the children affected by disease and violence has been supported, but gaps remain in the literature regarding the needs of these orphans and the services provided to them by non-governmental organizations. One study identified the need for a more efficient emergency response among non-governmental relief organizations in times of conflict.[7] This study identified problems which exist because of slow response to conflict; however, there were no implications to the long-term commitment these organizations may have to the country, its people, and children.

At the time of this current study, there were no published research articles documenting the use of Photovoice in Sierra Leone. Furthermore, few studies have highlighted the challenges facing NGOs providing care for orphaned and abandoned children.[9, 10] One study identified problems that NGOs face in the delivery of services to their targeted audiences.[9] Though this study identified targeted problems, there was no investigation of *why* these problems exist and how the delivery of services may be improved in order to best meet the needs of orphans. It is necessary to examine the barriers to health from an ecological framework which includes the sociological, economic, environmental, political, and cultural aspects of society. To improve upon these services and overall quality of life, NGOs, community members,   health professionals, government officials, and researchers must be engaged and unified in order to bring about social change.

Methods

The participants in this qualitative study used Photovoice to identify the sociological, economic, environmental, political, and cultural barriers that impact the health status of Sierra Leonean orphaned and abandoned children. Photovoice is emerging as a significant research tool in public and global health. It supports the objectives of Participatory Action Research(PAR) because individuals come together to identify factors contributing to social problems in focus and organize to initiate change.[11] Photovoice also works within the cultural context of PAR because the photographs are captured by the participants and reflect their world view.[12]

Ten caregivers employed by a major non-governmental relief organization located in Freetown, Sierra Leone (All As One [AAO]) comprised the purposeful volunteer sample. This supported Wang's[13] recommendations to include a sample of six to ten participants in the Photovoice activities. The participants were all natives of Sierra Leone, English-speaking, and had at least an 8th grade education. The sample included administrators, teachers, nurses, a security guard, child care workers and child care support staff at the Center.

One of the researchers traveled to Freetown, Sierra Leone, in the spring of 2008 to facilitate the study. Before the data collection began, participants attended a four hour training session which is supported by published Photovoice protocol.[13, 14] The participants were trained to use the digital cameras provided by the researcher. The process of Photovoice as well as informed consent and a brainstorming session were all part of the four-hour training the participants attended. Participants were instructed to obtain verbal and written consent prior to taking an individual's photograph. Children outside of the Center could only be photographed if a family member or guardian gave consent or if the child was photographed from behind or from a distance. The participants were instructed that their photos were their property and the researcher had to obtain their consent to publish participants' photographs. This protocol aligns with consent protocol followed in other studies employing Photovoice.[14]   The study was approved by the Executive Director of All As One (AAO) and the Institutional Review Board (IRB) from the researchers' home university.

Data Collection

The ten NGO workers were given seven days to take photographs which addressed these primary research questions: (1) what factors impede the health and well-being of orphaned and abandoned children in Sierra Leone?; (2) what role do NGOs play in the care of the children?; and (3) how can All As One as well as other NGOs improve upon the care provided to these children? When the participants completed taking their pictures, the participants were asked to bring their cameras back to the Center and meet with the researcher. The photographs were transferred from the digital camera to the researcher's laptop, and the researcher and participant reviewed all the photos taken by the participant. Following Wang's[15] Photovoice methods, the researcher then asked the participant s to choose the photographs they wished to discuss through in-depth interviews. Participants chose at least four photographs to discuss, some chose up to six photographs. The in-depth interviews were conducted by the researcher. Using the

photographs taken by each participant, the researcher asked probing questions to encourage the participant to elaborate on responses.

In qualitative studies, credibility, authenticity, transferability, and consistency are terms used in place of reliability and validity.[16, 17] To increase credibility, triangulation of methods as well as inclusion of expert viewpoints were used. Consistency and transferability were increased through the process of member checking and by adherence to clear protocol already established in previous studies using Photovoice .[11, 14, 15, 18-24]

Data Analysis

All ten of the NGO workers were interviewed by the researcher after seven days of data collection to contextualize each photograph using the SHOWeD method.[14] SHOWeD provides a question outline to improve the ability of the caregiver to illustrate each photograph's story. The questions include (a) What do you <u>s</u>ee here? (b) What is really <u>h</u>appening here? (c) How does this relate to <u>o</u>ur lives? (d) <u>W</u>hy does this problem or strength <u>e</u>xist? and (e) What can we <u>d</u>o about it?.[25] The photographs were analyzed with help from the participants. In a follow-up audio-recorded interview, each participant identified the common themes or theories that were found in his/her photographs.[15, 25] This method along with the Photovoice activities enhanced the study's authenticity and consistency.

One of the researchers listened to the audio-recorded interviews and transcribed the recordings verbatim. The transcription was emailed to the executive director to allow participants the opportunity to view the transcription of their audio-recorded interview to verify its accuracy. This enhanced the study's credibility, consistency, and transferability. After the transcription was validated for accuracy, the researchers analyzed the audio interview transcripts using the constant-comparative method to identify the significant themes and patterns that emerged from the dialogue.[26] The transcription was reviewed by both of the researchers manually, line by line. As common themes emerged, the researchers began developing clusters of grouped themes. The themes identified were grouped together based on the relationships observed through the transcript analysis. These clusters of grouped themes were then placed into broader categories of common themes. The photographs were used as a visual source of themes along with the audio interpretations. The final analysis was provided to the executive director of AAO. After the executive director reviewed the

findings, both the researchers along with the director and NGO workers initiated an action plan.

Results

The common theme mentioned by all ten participants regarding impeding factors of health among children in Sierra Leone was extreme poverty. Sub-themes such as limited access to basic needs and poor environmental conditions were supported by the Photovoice activity. The theme of extreme poverty and its subthemes are discussed in this section.

Extreme poverty results in the inability of Sierra Leoneans to meet basic needs such as access to water, food, and adequate shelter. Extreme poverty leads to poor environmental factors such as poor sanitation and overcrowding which are linked to both access to clean water and adequate housing. Due to the war, corruption, and disease the infrastructure of Sierra Leone has suffered major destruction limiting a child's access to both education and medical services. Extreme poverty leads to social issues such as child labor and abuse as well as child abandonment and neglect. Participant A describes the problems surrounding extreme poverty in Sierra Leone below. This quote is representative of the thoughts and themes discussed by the other nine participants.

> *The main problems that kids are facing are lead by poverty. Parents not being able to take care of kids. It is not that they do not want to take care of them, they don't have the means to take care of them. They do not have the money to send them to school. Some of them depend on the kids to make daily living. They get the kids to go sell things, they rely on their kids to go get stuff from the trash bins. The underlying factor here that we do not forget is poverty. People are living in extreme poverty. If we try to take care of poverty, I think the future of the kids would be better, but if that is not taken care…it is a problem.*

The participants highlighted the problems surrounding extreme poverty such as the lack of basic needs, poor environment, destroyed infrastructure, and child labor abandonment in their photographs.

Limited Access to Basic Needs

In Figure 1, Participant B captured an example of water shortage in Freetown, Sierra Leone.

When asked to explain this photograph, Participant B replied:

> These people are waiting for water. Some have come 5 to 6 kilometers. Because this is a picture of the environment where I live, it is a hill[sic]. Some come from up, some from down. The time I took this picture is almost the evening. Some have been waiting a long time for their turn. The water is coming out slow, it takes time. There is no control; there is not enough supply of water. We are straining.

Access to clean water is difficult and many of those living in Freetown, particularly the east side (most impoverished), are dependent on well water. This water is rarely clean water, which leads to health concerns such as typhoid and cholera that are rampant in Sierra Leone. Participant C was asked to explain the photograph in Figure 2:

> You can see that the people are trying to get water because they do not have clean pipe water. You can see the dirty water that has been contaminated they are trying to get it just to survive. This water they use to drink because there is no water in that area. The area I am talking about is in the capital city of Freetown, Sierra Leone. If the government can only provide pipe water for people in these areas it is better for people in Sierra Leone.

Orphaned and abandoned children suffer from malnourishment. All ten participants agree that malnourishment is linked to many adverse health effects among orphan children. Food is available to the people of Sierra Leone, but the cost of food is high and it continues to increase. According to one participant, this is not just a Sierra Leone problem; this is a global issue. The participants photographed children working odd jobs in order to care for themselves, and to meet the daily needs of their families. As depicted by one participant, the children of Sierra Leone might engage in risky practices to obtain food. Participant J described the lengths that some children may go to find food to eat.

> Displaced, lost and abandoned children roam the streets of Freetown finding food to eat. This boy is fishing under a big rock, it is very dangerous and he is risking his life. He needs the fish so he can sell them and use the money so he can buy food. But it is not a good thing because it is not good for his health. I asked him, "What are you doing under that stone", he said he is finding fish. I said, "Why are you finding fish under there?" He says he needs the fish so he can sell the fish to the people that are around and they will give him the money. I said, "Where are your parents?" He said to me he lives with his grandmother and his grandmother is too old to find food for him so he is going around finding food.

Participant H further discusses the problem of malnourishment by capturing a young child in Sierra Leone seen rummaging through garbage to find food in Figure 3. He believes the children are struggling for survival and finding food in the garbage is an easy way for children to satisfy their hunger. Participant H describes why this problem exists in Sierra Leone:

> Politically, the government as a whole and the local people here they should cultivate our local minerals and agriculture products so that these kids do not go out into the streets finding food to eat. Just because people here cannot produce their local food, most of the time they depend on overseas products. All of this leads to this kind of situation. Economically, we know we live in this part of the world where the price of rice is very high and people here cannot purchase it. Most of the people here because of their living, cannot buy this food and get other things to make it more suitable for eating. So this is leading these children to go out and find something else from the garbage.

Participant H further explained that the struggle to find food does lead to malnourishment and underdevelopment, but it also often leads to other risky behaviors such as stealing or prostitution.

The Poor Environmental Conditions

Environmental conditions in Sierra Leone are major contributing factors to the overall health and well-being of its people. All ten caregivers agreed that because of the poor condition of both the sanitation system and the poor infrastructure found in Sierra

Leone, the orphans, displaced, and lost children of Sierra Leone are greatly disadvantaged. All participants successfully showed how the environment affects the health and well-being of these children. The mismanagement of the city's trash disposal increases the ill health outcomes documented among the children of Sierra Leone. In Freetown, the trash bins are not protected from public access. The areas are not well-maintained and anyone who seeks access can enter these areas. In Figure 4, Participant G offers concern for the surrounding trash heaps:

The public is not in good care. This is the village of Lumley on the way to the police station. Children are throwing trash away, but they do not do it in one place, but all over. They will pick through the dust bin for what they want. The children going there are not protected. Some of them go there not having proper shoes some with no shoes. What if they decide to go and play there? They can take disease around with them so it is better if the elderly people take the trash away instead of the children.
What I want to emphasize here....is that this is a form of child abuse. Children do not know they should not pick up anything from anywhere and eat because they do not know the after effects. So if we want to protect our children we should stop them from doing it. If they are not checked, their health will be at stake. We should not only say, 'This should be government!' Let this be a family issue. Let the families pick the issues up, address them and then tap the families on the shoulders for a job well done. We are leaving everything in the hands of government which is very, very troubling.

Child Abandonment

The participants captured the role extreme poverty plays in the increase of child abandonment. The participants agree that many of the children at the AAO Children's Center are abandoned by parents or extended family members. According to the participants, abandonment is common in Sierra Leone because parents and guardians might find themselves without the means to provide proper care for the child. Three of the ten participants identified the issue of child abandonment in Sierra Leone. Participant E was asked to explain why child abandonment happens so frequently in Sierra Leone, she said:

There are so many factors. For my own experience [sic], she has been abandoned by the mother. Maybe she was a single parent, maybe not only a mother, but a teenager, a school going child. They are faced with those challenges. Because maybe a school going child, no body to take care of and she had premarital sex [sic] and unfortunately she got pregnant she had to keep the child for 9 months and maybe she can't cope with the challenges and maybe when the child was swollen and sick she had to give her medical attention and no money to care for. At the end of the day the stress, the trauma, no body to help maybe I think she abandoned her. I think the father denied pregnancy because if the father agreed to take care of the child things would not have been the way they are. In this case I suspect this is a single parent case. In a single parent case the mother may be a child herself with nobody to take care, maybe she too has been abandoned by her parents because this pregnancy. So at the end of the day what does she have to do, nobody to help. She may have dropped the child, but at least the child was alive.

Action Items to Improve Child Health and Well-Being

The impeding factors require immediate attention on behalf of the Sierra Leonean Government, International Governments, and members of both the local and global communities. After data collection and individual interviews, participants, the executive director of All As One, and one of the researchers gathered at the Center to dialogue about "next steps" and put together an action plan.

All ten participants agreed that the work of non-governmental agencies such as AAO is important to the children and the people of Freetown, and that Sierra Leone needs more of this support to improve the health and well-being of orphaned and abandoned children as well as improve the quality of life of citizens of Sierra Leone. However, after reviewing the transcripts of the interviews, it is apparent that the participants also understand that the country cannot depend solely on the work of NGOs. There must be an internal motivation within the community and its own government to provide a better tomorrow for its children.

Participant F:

. . . something really needs to be done, something fast. Because we are in the 21st century otherwise we are never going to catch up and we need to catch up. There needs to be the political will on the part of our leaders and maybe the people themselves living in these communities to think positive and wish to get ahead. It rests on us to want to do something better with our lives. Ou leaders should provide the necessary environment so that we can do those things.

After the participants explained the photographs, the researcher asked the participants to explain what they thought could be done to address the barriers reflected in the photographs. This process was used to provide the participant an opportunity to reflect on possible solutions to begin social change. Table 1 presents a proposed list of actions based on a summary of the common themes, subthemes, and solutions identified by the participants through the review of both the interview transcripts and photographs.

The recommended actions presented in Table 1 (below) identify solutions discussed by the caregivers that need government support; however, the workers from AAO also identified several proposed actions that AAO can begin to initiate. This is highlighted by the Organizational Responsibility column. The caregivers along with the executive director wanted to build upon the organization's strengths to continue improving services provided to orphaned and abandoned children in Sierra Leone. The participants agree that immediate intervention may occur with the continued support of international governments, non-governmental organizations, and community empowerment. However, the participants do understand that public policy is still needed to ensure the implementation and success of these actions.

Discussion

According to the caregivers, extreme poverty lies at the heart of the impeding factors affecting the health of the children in Sierra Leone. Extreme poverty in Sierra Leone is linked to poor sanitation, overcrowding, limited access to education and medical services, limited access to water, food, inadequate shelter, child labor exploitation, and abandonment and neglect. The assessment of these factors is unique because the caregivers provided the researcher a visual presentation to support the

narrative description of the influencing factors of poor health.

The orphaned and abandoned children of Sierra Leone lack the capacity to meet life's most basic needs. All ten participants discussed the water shortage occurring in Sierra Leone, as about half of the citizens of Freetown do not have access to clean, running water.[27] This contributes to dehydration and intestinal diseases such as diarrhea, cholera, and typhoid that are linked to 20 percent of infant and child mortality rates.[28] The inadequate dwellings seen in Freetown also contribute to child mortality because the homes are not safe and provide little security from airborne and vectorborne infections. Pneumonia and malaria cause 25 percent and 12 percent of child and infant deaths respectively.[28] Child malnourishment is also rampant in Sierra Leone. According to the participants of this study, the need and the price of food encourages the use of child labor.

By applying Maslow's Hierarchy of Needs to situation in Sierra Leone, it becomes apparent why the children and citizens of Sierra Leone continue to struggle from the damage of the civil war. According to Maslow, to achieve fullest human potential (self-actualization), a hierarchy of needs must be fulfilled.[29] At the foundation of the hierarchy are the basic physiological needs (food, water, and shelter). According to the Maslow, this level serves as the foundation because no other need can be realized without first meeting life's most basic needs.[29] Because the orphaned and abandoned children of Sierra Leone cannot meet these basic needs it will be difficult, if not impossible, for them to reach full human potential. The same is true for orphans under similar circumstances outside of Sierra Leone. Failing to address these needs as a global community will weaken not only these children's chances at survival, but security, prosperity, and quality of life within the our "global village."

The poor infrastructure of Sierra Leone impacts the health, education, and socioeconomic status of its population. The infrastructure was destroyed during the war, and since the declaration of peace, Sierra Leone has been unable to provide its children and citizens the necessary resources to eliminate poverty, disease, and illiteracy. Influences are needed from various levels of support to improve the health of world orphans. Ecological theory explains the impact that different levels of influence have on a person's health. To realize change for the individual, change must first occur at the community and public policy levels.[30]

Community development and community participation are advancing as effective techniques in public health interventions.[31] A problem seen in global health is the implementation of strategies that reach only a small group of people. Non-governmental organizations like AAO can provide more effective strategies for the orphaned and abandoned children. The caregivers are able to perform tasks that "outside" organizations and governments may be unable to do. Employing natives of Sierra Leone not only creates financial and economic support to local families, but also creates empowerment among the staff to work with the community for change. According to the interview responses, the caregivers understand that governmental support is important to improve the health and well-being of orphaned and abandoned children in Sierra Leone, but support and motivation must also be represented within the community.

Impact of Participatory Action Research

As stated in the introduction, the work of NGOs is vital to the survival of orphaned and abandoned children in Sierra Leone. The researchers searched Academic Search Premier, EBSCOhost and Social Science databases to retrieve articles examining NGOs in Sierra Leone. The search generated seven articles. However, only three examined NGOs specific to Sierra Leone and child welfare. [32- 34] One study found did use an action research methodology to evaluate a peace keeping curriculum implemented in Sierra Leone schools.[34] However, prior to the current study, no known action research study has been conducted with an international NGO in Sierra Leone to assess barriers and promoters of child health impacting NGOs as they provide care for orphaned and abandoned children. This study generated important information to help the NGO improve upon the services provided to these children as well as advocate and organize for social change that reduces or eliminates these barriers.

The executive director of AAO discussed how she has seen both an external and internal change in her employees since the Center has been providing services to Sierra Leone. The executive director also expressed how participating in this research allowed the NGO workers to envision more possibilities for their role in changing not only the Center—but Sierra Leone. The employees are more optimistic about the possibility of social change.

Along with the dialogue between the researcher and the participants generated by the photographs taken during the Photovoice activities, the participants also reflected on the problems and possible solutions for Sierra Leone. All ten participants discussed the need for more governmental accountability and interventions by international governments; however, all agreed that dependence on these agencies should not be as great as the dependence on each other in the community. Change must happen at the grassroots level.

AAO is beginning the cycle of community empowerment. The executive director and the staff in Freetown realize the importance of community outreach.   After participating in this study, AAO has committed to change the organization's mission to expand services to reach out not only to the children living at the Center, but to implement programming for the citizens of Freetown and Sierra Leone. Recently, AAO purchased six acres of land on the outskirts of Freetown (Grafton, Sierra Leone). Grafton is home to many war-wounded and displaced children and families.[35] The organization plans to build a new AAO facility. This new Center will be home to a new women's and children's hospital, a new school, and a new children's center. The plans for these new facilities are focused on community outreach and empowerment. In addition, they were also able to move forward with an affirmation that Sierra Leoneans were the solution—by increasing awareness and providing a platform for Sierra Leoneans to share and advocate, change for the entire country is possible. AAO is taking the necessary steps to create a stronger infrastructure for the people of Sierra Leone.

Limitations

Although this study identified important factors which affect the health and well-being of world orphans living in Sierra Leone, this study is not without its limitations. This study used a purposeful sample of non-governmental caregivers working with orphans in Sierra Leone. Like other qualitative studies, the results may not be generalized to all other non-governmental relief organizations working in Africa and with children. However, the results can be used to gain a richer understanding of the socio-ecological factors which affect the health of orphaned and abandoned children in Sierra Leone as well as the NGOs and relief agencies that provide care to them. In addition, this study may serve as a template for future participatory action research studies implemented within war-torn or developing countries.

Recommendations

This was the first Photovoice project conducted in Sierra Leone and the first published study which examined barriers to NGOs and caregivers for abandoned and children and orphans living near Freetown. This study used digital photography and participatory methods to represent and "capture" barriers to child development and survival as well as impediments for NGOs and organizations providing care for these children. This research serves as a springboard for future empirical studies relating to this topic; there is an urgent need to further investigate the high child mortality rates that plague Sierra Leone. In addition, a follow-up study exploring how the NGO in this study has implemented the action plan since the initial study would contribute information to the field relating to the long-term impact of participatory action research methods.

Caregivers in this study also mentioned the need for more quality-standard orphanages in Sierra Leone. Gaps in the care these orphanages provide exist because there is no standard enforced to ensure quality care and the agencies lack adequate resources to provide quality care. It is recommended that non-governmental agencies work together with public health educators and global health organizations to further explore the needs of the lost, abandoned, and orphaned children to ensure successful efforts are developed and implemented to reduce the impediments to quality health and well-being. Quality-standard NGOs can also work together to advocate for the implementation and enforcement of higher standards among child orphanages to motivate centers to improve the quality of care and the integrity of global health. Quality standard orphanages should work together with social welfare and public health education agencies to advocate for public policy requiring orphanages to meet certain standards in implementing care to the disadvantaged children of Sierra Leone.

Conclusion

In conclusion, the findings of this study support previous research which documents the effectiveness and uniqueness of Photovoice as a tool for community assessment and social change .[11-15, 18-23] The photos taken by the participants served as a catalyst for dialogue between the primary researcher and the participants about the problems and possible solutions for the NGO as well as Sierra Leone. The method was well received by the study's participants and has resulted in change. The use of Photovoice has been shown to be a culturally appropriate technique useful to community health educators, NGOs, global health organizations, program planners and health advocates as they work with communities and vulnerable populations to assess community needs, articulate solutions and initiate reform. Furthermore, this study underscored the effectiveness and continued need for global academic and community alliances. These partnerships help to ensure the development of culturally relative programs and services as well as build community capacity. This supports the Freirian philosophy that sustainable change occurs when communities work together to liberate themselves.[36] By allowing participants a voice in the process and putting technology into the hands of key stakeholders, participatory action research methods such as Photovoice can bring about lasting change by encouraging and unifying communities to create a better tomorrow.

References

1. United Nations Development Programme.Measuring human development: A primer. Available at http://hdr.undp.org/en/media/primer_intro.pdf. Accessed May 24, 2008.

2. Hirsch JL. *Sierra Leone: Diamonds and the Struggle for Democracy*, Boulder, CO: Lynne Rienner Publishers; 2001

3. Medeiros E. Integrating mental health into post-conflict rehabilitation: The case of Sierra Leonean and Liberian child soldiers. *J Health Psych.* 2007;12:498-504.

4. Kline PM, Mone E. Coping with war: Three strategies employed by adolescent citizens of Sierra Leone. *Child Adol Soc Work J,* 2003;20*:* 321-333.

5. United Nations International Children's Emergency Fund. Sierra Leone. Available at http://www.unicef.org/infobycountry/sierraleone.html. Accessed September 17,2007.

6. The World Bank. Sierra Leone: Country brief. Available at

http://web.worldbank.org/WBSITE/EXTERNA
L/COUNTRIES/AFRICAEXT/SIERRALEON
EEXTN/0,,menuPK:367833~pagePK:141132~
piPK:141107~theSitePK:367809,00.html.
Accessed September 3, 2008.

7. De Jong K, Kleber R. Emergency conflict-related psychosocial interventions in Sierra Leone and Uganda: Lessons from Medecins Sans Frontieres. *J Health Psych,* 2007; 12: 485-497.

8. Denov M, Maclure R. Engaging the voices of girls in the aftermath of Sierra Leone's conflict: Experiences and perspectives in a culture of violence. *Anthropologica,* 2006;48:73-85.

9. White J, Morton J. Mitigating impacts of HIV/AIDS on rural livelihoods: NGO experiences in sub-Saharan Africa. *Dev Prac,* 2005;15: 186-199.

10. Drew RS, Makufa C, Foster G. Strategies for providing care and support to children orphaned by AIDS. *AIDS Care,*1998; 10: 9-15.

11. Wang C, Morrel-Samuels S, Hutchison P, et al. Flint Photovoice: community buiding among youths, adults, and policymakers. *Am J Public Health*, 2004;94:911-913.

12. Wilson N, Dasho S, Martin A, et al. Engaging youth adolescents in social action through Photovoice: The Youth Empowerment Strategies (YES!) Project. *J Early Adol,* 2007;27: 241-261.

13. Wang C. Photovoice: a participatory action research strategy applied to women's health. *J Women's Health,* 1999;8:185-192.

14. Wang C, Pies C.Family, maternal, and child health through Photovoice. *Mat & Child Hlth J*, 2004;8: 95-102.

15. Wang C. Youth participation in Photovoice as a strategy for community change. *J Comm Prac*, 2006;14:147-161

16. Appleton J. Analysing qualitative interview data: Addressing issues of validityand reliability. *J Adv Nurs*,1995; 22: 993-997.

17. Fade SA. Communicating and judging the quality of qualitative research: The need for a new language. *J Hum Nutr Diet*, 2003;16: 139-149.

18. Booth T, Booth W. In the frame: Photovoice and mothers with learning difficulties. *Disabil Soc,* 2003;18:431-442

19. Carnahan C. Photovoice: Engaging children with autism and their teachers.*TEACH Except Child*, 2006;39: 44-50.

20. Clark L, Zimmer L. What we learned from a photographic component in a study of Latino children's health. *Field Meth,* 2001;13: 303-328.

21. Hergenrather K, Rhodes S, Clarke G. Windows to work: Exploring employment-seeking behaviors of persons with HIV/AIDS through Photovoice. *AIDS Educ Prev,*2006; 18*:* 243-258.

22. Streng J, Rhodes S, Ayala G, et al. Realidad Latino: Latino adolescents, their school, and a university use Photovoice to examine and address the influences of immigration. *J Interprofess Stud,*2004; 18: 403-415.

23. Wang C, Burris M, Xiang Y. Chinese village women as visual anthropologists: A participatory approach to reaching policy makers. *Soc Sci Med,*1996; 42: 1391-1400.

24. Wang C, Redwood-Jones Y. (2001). Photovoice ethics: perspectives from Flint Photovoice. *Health Educ Behav*, 2001;28: 560-572.

25. Wang CC, Burris M. Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Educ Behav,*1997; 24*:* 369-387.

26. Lincoln YS, Guba EG. *Naturalistic Inquiry*. Newbury Park, CA: Sage Publishing; 1985.

27. World Health Organization. *Health action in crises: Sierra Leone*. Available at http://www.who.int/hac/crises/sle/background/2004/SierraLeone_June06.pdf . Accessed September 19, 2007.

28. World Health Organization. *Mortality country fact sheet 2006: Sierra Leone*. Available at http://www.who.int/whosis/mort/profiles/mort_afro_sle_sierraleone.pdf. Accessed May 24,2008.

29. Maslow A. A theory of human motivation. *Psych Rev,*1943;50: 370-396.

30. McLeroy K, Bibeau D, Steckler A, et al. An ecological perspective on health promotion programs. *Health Educ Quart,*1988; 15: 351-377.

31. Hossain SM, Bhuiya A, Khan AR, et al. Community development and its impact on health: South Asian experience, *Brit Med J,*2004; 328:830-833.

32. Fast L. Characteristics, context, and risk: NGO insecurity in conflict zones, *Disasters*,2007;31:130-154.

33. Park A. Global governance, therapeutic intervention, and war-affected girls, *Altern*, 2009; 34:157-182.

34. Bretherton D, Weston J, Zbar V. School-based peace building in Sierra Leone, *Theor Prac*, 2005; 44:355-362.

35. All As One. *All As One: Building futures in Sierra Leone*. Available at http://www.allasone.org . Accessed May 24, 2008.

36. Freire P. *Pedagogy of the oppressed.* New York: Continuum; 1970.

Figure 1. Waiting for water

Figure 2. Gathering water from local well.

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Figure 3. Rummaging for food

Figure 4. Trash pile near downtown Freetown

Table 1. Proposed Action Items by All As One

Summary of Identified Problems	Proposed Actions/Solutions	Organizational Responsibility [a]
Lack of access to basic needs (water, food, & shelter)	Maintain current water supply & create more wells & dams	Government
	Provide more housing facilities for war-displaced families	Government
Poor Environment & Weak Infrastructure	Educate & sensitize the community members about healthy environments	All As One
	Enforce a litter law & provide motivation to uphold it	Government
	Protect & supervise local trash dumping sites	Government
	Provide more opportunities for children to attend school, build more schools	Government & All As One
	Provide immunization clinics to the community	All As One
Child abandonment & Maltreatment	Offer vocational training & adult literacy education	All As One
	Offer financial aid & School sponsorship to children	Government & All As One
	Increase number of quality orphanages in Sierra Leone	Government & All As One
	Sensitize the community to embrace the importance of a child's life	All As One

Note. The identified problems and solutions represent the participants' discussion of impeding factors to child health and what actions are needed to improve well-being.

[a] Participants identified who should take responsibility for the proposed action/solution. Documenting All As One represents the actions that the caregivers identified as feasible solutions All As One can implement to improve child health and well-being.