

Picturing Change Through PhotoVoice: Participatory Evaluation of a Daycare Intervention in Kenya

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Abstract

This paper discusses the methodological process and findings of a PhotoVoice participatory evaluation conducted as part of a larger randomized study, which provided vouchers for subsidized daycare to selected mothers living in Korogocho slum in Nairobi. We consider the ways in which PhotoVoice can be used as a tool for participatory evaluation. To explore this idea, we divide the paper into four sections. First, we briefly describe PhotoVoice as a participatory visual methodology that is useful to conduct research with marginalized populations. We then go on to look at the use of PhotoVoice as a tool for program evaluation, focusing on other studies that have used PhotoVoice in this way. In the third section, we describe the use of PhotoVoice in this study and some of the key findings that emerged. In the final section, we elaborate on key findings to discuss lessons learned about the use of PhotoVoice as a method of participatory evaluation in social research. As in any other evaluation study, the challenge is often to determine "through whose eyes" is best to measure the changes resulting from an intervention. Here, we measure change through the eyes of the participants themselves, focusing on what they see as valuable.

Keywords

Child care, mothers, participatory evaluation, participatory visual methodologies, PhotoVoice

Introduction

In many societies throughout sub-Saharan Africa, childcare is largely the responsibility of mothers and other female family members, which can limit their options in terms of economic activities. Many women are limited to participating in informal work that takes place in the home because it is "child-compatible." In urban areas, factors such as wage labor, the monetized economy and cost of living compel women to take on new employment options in order to become economically independent or contribute to their household income. Thus, balancing work and childcare remains a dilemma for many women. In countries across Africa, including Kenya, tensions between work and childcare have contributed to a downward trend in fertility rates (Bongaarts 2008).

Poorer segments of Kenya's population, which are also less likely to be educated and have fewer employment options, continue to have higher than average fertility rates when compared to the rest of the country. In Korogocho, one of Nairobi's largest slum settlements, the total fertility rate in 2009 was 3.7 children born per woman, while in Nairobi that figure was estimated at 2.8 children per woman (Emina et al. 2011). With more children and less opportunities for employment, mothers in low-income contexts like Korogocho struggle to balance childcare and employment responsibilities. Grappling with such economic and social constrains can translate negatively on the health and well-being of mothers and their children.

A complex interaction of economic, social and environmental challenges pre-disposes children living in low-income contexts to higher health risks and infant mortality rates. Within the family, factors such as low educational levels of parents, especially that of the mother, and economic constraints, increase the chances of infant mortality. At the community level, workplace and environmental hazards such as open sewage and garbage dumpsites are factors that can expose children to diseases or injury (Kimani-Murage et al. 2014). A participatory study with children aged eight to 13 years living in eight informal settlements in Nairobi further confirms that from the perspectives of the children themselves life is very dangerous, both in relation to environmental issues as well as social issues related to gender-based violence (Mitchell et al. 2016). What this study also confirmed is the significance of the use of visual methodologies in getting at the perspectives of those most affected. In a country like Kenya, where there is an absence of adequate social policies and legal protections for vulnerable populations, Muthuri et al. (2017) advocate for interventions that provide an economic cushion, particularly to single mothers and those living in urban low-income contexts. For example, the establishment of reliable and affordable daycare services may help women to balance childcare and employment responsibilities.

This paper discusses the methodological process and findings of a PhotoVoice participatory evaluation conducted as part of a larger randomized study, which provided vouchers for subsidized daycare to selected mothers living in Korogocho slum in Nairobi. We consider the ways in which PhotoVoice can be used as a tool for participatory evaluation. To explore this idea, we divide the paper into four sections. First, we briefly describe PhotoVoice as a participatory visual

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PhotoVoice as a useful tool for conducting research with marginalized groups

PhotoVoice is a community-based participatory and visual research methodology in which a collaborative partnership is formed between researchers and communities (Mitchell 2011). The practice of PhotoVoice involves the provision of cameras to community members, who are asked to take photos representing their own experiences with and perspectives on a particular issue in their community. In a sense, the photographs taken can act as a visual voice for participants, helping to express their needs and to tell stories that may not otherwise be captured by more traditional, researcher-driven methods. The actual term "PhotoVoice" was first coined by American researcher Caroline Wang in the 1990s through her work with women and policy makers on health issues in rural China (Wang 1999). It is now a well-established approach for doing qualitative research, and for conducting participatory research with socially marginalized groups in particular (Mitchell 2008; Mitchell and Sommer 2017).

Owing to its focus on capturing the experiences of marginalized groups, PhotoVoice is deeply rooted in feminist research methodologies. It is commonly implemented in feminist research on women's bodies and women's health. As such, it is highly appropriate to use this method when researching poor women's experiences of balancing work and childcare, as we do in this study. Feminist researchers use PhotoVoice to amplify women's voices, to identify and address their needs, and to encourage self-representation and reflexivity.

PhotoVoice is a useful tool to see "through the eyes" of individuals who have historically been marginalized by society and by traditional research processes (Wang 1999). This method gives participants the opportunity to (1) document and record their experiences and the conditions in which they live, (2) critically reflect on these experiences and conditions, and (3) develop strategies to reach policy-makers. A particular strength of PhotoVoice lies in the fact that it is not just researchers analyzing the photographs produced during the research process, rather, participants themselves analyze, interpret and narrate their own stories and experiences behind the photographs. In some cases, PhotoVoice participants may be given the opportunity to participate in community events like photo exhibitions, where they can display and discuss their work with local audiences (Mitchell 2011).

PhotoVoice as a tool for program evaluation

The concept of participatory evaluation in community development was first introduced in the 1970s to address the knowledge and power gaps that existed between international project staff and local beneficiaries. Like traditional evaluation approaches, the goal of participatory evaluation is to measure the impact of an intervention in order to understand and improve its outcomes. Yet understanding program impacts as they play out in local contexts is complex, and will depend on through whose eyes such impacts are being observed. Long-standing assumptions about researcher objectivity and neutrality in the positivist research paradigm have historically worked to exclude local beneficiaries and stakeholders from the evaluation process, and to marginalize their perspectives and opinions.

By adopting the principles of collaboration that underlie participatory research, participatory evaluation goes beyond traditional impact evaluation processes in which outsider, often foreign, researchers hold exclusive decision-making power. Instead, the voices and viewpoints of local beneficiaries and stakeholders are deliberately prioritized. Thus, participatory evaluation can be defined as "a participant-driven strategy for investigating the ways in which research partners, by working together, come to understand their work, [as well as] how they use the evaluation to help them to look critically at their own situation, self-reflect, and take action to change the status quo" (Guba and Lincoln 1989, 79). By adopting the principles of collaborative and community-driven research, participatory evaluation, when properly implemented, is an inherently inclusive process that has at its core the active involvement of local beneficiaries and stakeholders.

Mitchell et al. (2017) explore the use of participatory evaluation to examine changes resulting from community-level interventions. They refer to the work of Davies and Dart (2005), Serrat (2009), and Lemaire and Lunch (2012), among others, who have conducted program evaluations using participatory visual methods like "participatory video" and what is referred to as the "most significant change" approach. For these methods, community members are asked to produce videos or images using artwork, cameras or cellphones to capture what they see as being key changes in the community resulting from an intervention (see also Mitchell and DeLange 2011). Researchers who utilize these methods argue that program impact is only truly observable through the eyes of community stakeholders who are directly involved and impacted by a project (Mitchell et al. 2017). Researchers like Cousins and Earl (1992) make the case for participatory evaluation on the basis that it is inclusive, ethical, and empowering for participants, and because it has the potential improve project sustainability well into the future. They argue that participatory evaluation is not merely about gathering information on social issues, it is also about taking action to address those issues.

PhotoVoice is another example of a participatory visual methodology that can be used to evaluate community-level development interventions. Research by Mitchell et al. (2017) highlights several studies where PhotoVoice has been used as a method to carry out participatory evaluation. In one

study that took place at Nelson Mandela Metropolitan University in South Africa, a group of young women involved in a project to address campus-based violence used cameras to study problems contributing to women's lack of safety at the school (DeLange et al. 2015). They identified issues like poorly lit campus walking paths, and the presence of undocumented male visitors in dormitories late at night. Following the implementation of a campus safety intervention, the women took another set of photos to capture which, if any, of these types of problems had been addressed. These before and after photos were included in an exhibition titled, *Seeing How It Works*, organized so that other students and campus authorities could understand the changes taking place from their perspective.

In another study, also in South Africa, teachers responsible for implementing an HIV/AIDS awareness curriculum used photographic images to document the impact of their teaching on the campus and wider community (Moletsane et al. 2007). A key feature of this project was that it highlighted the significance of exhibiting the images publicly to promote understanding and discussion. In this case, the photos produced by the teachers became part of a travelling exhibition titled, *Seeing, Believing, and Acting for Change in HIV and AIDS: Integrating HIV/AIDS in Higher Education Curricula.* The exhibition allowed audiences across South Africa to learn about the impact of the curriculum, and initiate a broader conversation about the national HIV/AIDS epidemic.

Other studies adopting PhotoVoice as a method of participatory evaluation have been conducted throughout Africa, including projects evaluating the experiences of children living in informal slum settlements in Kenya (Mitchell et al. 2016), homeless girls living on the streets in Rwanda (Umurungi et al. 2008), and girls living in poverty in Mozambique (Sajan et al. 2011).

Our study

The PhotoVoice participatory evaluation discussed in this paper was nested within a larger larger randomized study that sought to create better economic opportunities for women in Nairobi slums by providing access to subsidized daycare. For this intervention, selected mothers in Korogocho were provided vouchers for free childcare at one of 48 registered daycare centres chosen to be part of the project. A detailed description of this intervention and its findings are presented elsewhere (see Clark et al. 2016; Clark et al. 2017).

The decision to conduct a PhotoVoice exercise as part of this larger study had a dual purpose. First, it allowed the researcher team to explore, from early on in the study, the issue of childcare from the perspectives of the mothers themselves. As will be discussed below, the specific nature of the voucher intervention was determined in part by the findings of the PhotoVoice exercise. Second, researchers were drawn to the relatively holistic, participant-led nature of PhotoVoice, with its built-in processes for generating community engagement and reflection.

Methodology: using PhotoVoice to evaluate program impact

The PhotoVoice exercise itself was conducted in two phases. The first phase recruited 47 mothers in Korogocho, between 15 and 49 years old, with at least one child between the ages of one and four. These mothers were asked to identify the challenges that they experienced living in the slum area and balancing work and child care responsibilities. The research team provided them with cameras and asked them to take photos responding to the following prompts: (1) how does child care effect your work? and (2) what are some of the challenges and some of the solutions to this issue? It is worth noting that this phase of the project also involved participants from the original training session who themselves were able to train other women on using photography to capture their own experiences.

Approximately 115 photos were taken by the mothers in total during phase one. The mothers were then asked to use these photos to create thematic "poster-narratives," which are visual boards featuring selected photos and captions to identify their significance (Mitchell 2011). In total, 16 poster-narratives were created by the 47 women participants in phase one. The mothers were then interviewed in focus groups about the meaning behind their photos and poster-narratives. Drawing on an analysis of the photos, poster-narratives and interview transcripts, the research team identified six thematic areas that best capture the mothers' perspectives on balancing work and childcare, including: financial security, childcare, safety, human security, the environment, and health. These themes will be discussed in greater detail in the findings section below. Findings from this first phase of the PhotoVoice exercise, along with survey data collected by researchers from the mothers and daycare operators, helped to frame and determine the implementation of the voucher intervention.

Phase two of the PhotoVoice exercise engaged a sample of 31 mothers in the intervention arm of the larger voucher program to understand the changes they experienced resulting from access to subsidized daycare. In this phase, the mothers participated in a workshop, during which they worked in small groups. They were asked to take photos capturing their responses to the prompt: how has your life, or the lives of your family members, changed as a result of participating in the voucher program? This component of the study set out to understand what was working, or not, with regard to the voucher intervention, and how the project could be improved. Still in groups, the mothers worked together to create post-narratives of their findings.

In total, the mothers in phase two produced 16 poster-narratives in which they identified key themes and reflections on the impact of access to subsidized daycare. Following the PhotoVoice exercise, follow-up interviews were conducted with the mothers in which they discussed their photos and elaborated upon how their daily lives, and the lives of family members, had changed as a result of participating in the voucher program. As we describe below, these photos also became part of a travelling exhibition, titled *Picturing Change*, which has been showcased at numerous public events, ranging from a stakeholder conference held in Nairobi in May 2017, a research

dissemination event in Korogocho in June 2017, and an international conference on childcare held in Montreal, Canada in August 2017.

FIGURE 1. SAMPLE "POSTER-NARRATIVE"



Findings: 'through the eyes of mothers'

Findings from the PhotoVoice participatory evaluation suggest that following the start of the voucher intervention, the mothers saw numerous improvements in their general well-being and that of their families. The following discussion outlines the changes that the mothers captured through their poster-narratives and during the follow-up interviews. The figures presented are a sample of the photos taken by the women, as well as the captions they wrote to accompany them.

The first finding to emerge from the PhotoVoice evaluation is that *fewer children accompanied* their mothers to their places of employment. Mothers remarked that since the start of the daycare intervention they no longer had to take their children with them to work. According to some mothers, this has positive ripple effects on child nutrition. Before the introduction of the daycare program, children who accompanied their mothers to work regularly missed meals because feeding them on the job was often not possible. For children who did not accompany their mothers to work in the past, they may not have eaten at all because their mother was not home to feed them, or due to a lack of available food in their household. Evidence from Victoria et al. (2008) and Grantham-McGregor et al. (2007) has shown that lack of proper nutrition for children has adverse health implications that can negatively affect brain growth and development. While it was beyond the scope of our study to say definitively that there was improved nutrition for children, the comments of the mothers do suggest they felt that the changed situation was beneficial for their children.

FIGURE 2. "THE MOTHER DOES NOT GO EARLY TO THE MARKET WITH HER CHILD."



The second finding to emerge from the PhotoVoice evaluation is that *a reduced number of children playing unattended in the streets*. The mothers indicate that following the implementation of the voucher program, a reduced number of children could be found playing unattended or loitering in the streets because they were now attending daycare. In this way, attendance at daycare reduced children's exposure to injury and accidents, such as those involving vehicles and motorcycles. In this way, provision of daycare was found to improve the safety and security of women's children while they attended work.

FIGURE 3. "THERE ARE NO CHILDREN PLAYING IN THE DRAINAGE LIKE BEFORE."



Closely related to the previous point, the PhotoVoice evaluation suggests that access to daycare *reduced children's exposure to hazardous environments*. In the first phase of the PhotoVoice exercise, women took photos of children playing in and around garbage, open sewage, and unsafe drainage systems. In the second phase of PhotoVoice, the mothers captured in photos no children playing in these dangerous environments, and they attributed this to the introduction of the voucher

intervention. With reduced exposure to hazardous environments, the mothers reported a decrease in incidences of child injury and illness. This subsequently resulted in household savings on medical expenses - money that could instead be used to buy food or invest in small businesses, for example.

FIGURE 4. "THERE ARE NO CHILDREN PLAYING IN THE SEWAGE FOLLOWING THE VOUCHER PROGRAM."



The PhotoVoice evaluation also points to an *increase in work and employment opportunities for the mothers* following the introduction of the voucher intervention. The mothers acknowledged that access to reliable and affordable daycare services had given them more time to find and participate in paid employment, or to work with their husbands as part of family businesses. This resulted in increased household income.

FIGURE 5. "WE HAVE NOW MANAGED TO START BUSINESSES AND EXPAND THEM."



The *improved well-being of family members* was also identified as an outcome of the voucher program. Access to affordable and reliable daycare not only contributed to the economic well-being of the mothers and their families, but also to their physical and emotional wellness. For example, assurance that their children were safe and well taken care of in daycare centres gave the women the peace of mind to go about their work, and to participate in social and leisure activities, including rest. Other family members also benefitted. Access to subsidized daycare eliminated the obligation of older siblings to step-in as secondary caregivers when the mothers were at work. They were subsequently able to devote their time to other activities such as attending school and finishing their homework. Some even had time to play with friends and simply be children.

FIGURE 6. "THIS MOTHER IS GOING HOME TO REST AFTER WORK BECAUSE HER CHILDREN ARE IN DAYCARE."



Finally, the PhotoVoice evaluation identified numerous *intervention gaps and the need for follow up*. The women pointed to remaining gaps in community services, making it clear that there were still areas for potential improvement and expansion of the daycare program. For example, they acknowledged that many mothers in the community still did not have access to childcare, meaning their children were still being exposed to danger and hardship on a daily basis.

FIGURE 7. "THIS CHILD IS LEFT TO CARE FOR HIS SIBLING INSTEAD OF GOING TO SCHOOL."



These findings were presented as part of the aforementioned travelling exhibition, *Picturing Change*. When included as part of an international stakeholders' conference in Nairobi, the exhibition offered what might be described as "visual verification" of the mothers' experiences, and complemented the more technical and academic presentations taking place at the conference. When it was exhibited several months later during a research dissemination event at Korogocho community centre, it gave community members an opportunity to learn, through an accessible medium, the findings of the study from the perspective of the mothers who participated. Several of the mothers involved in the PhotoVoice evaluation were present during these events to discuss with attendees the meaning behind their photos.

FIGURE 8. COMMUNITY MEMBERS DISCUSSING PHOTOS AT THE PICTURING CHANGE EXHIBIT IN KOROGOCHO.



Interestingly, each of these public events had the potential to provide further opportunities for data collection, and contribute to the findings of the participatory evaluation. As Mitchell (2015) highlights in an analysis of the value of PhotoVoice exhibitions, audience responses can offer an additional layer of data by including different perspectives and usually taking place at a later point in the project cycle. In this study, discussions with the community members during the research dissemination event and PhotoVoice exhibit in Korogocho indicated that cases of poor child health and malnutrition had increased since the voucher program ended. Community leaders who attended this event also reported that cases of children playing unattended in the streets, exposed to environmental hazards, had likewise increased. These changes were attributed to the fact that most mothers in the voucher program could not afford to pay the daycare fee for their children post-intervention. The need for concerted efforts by local government, organizations and community members to provide reliable and affordable daycare services for mothers was recommended as one strategy to sustain the positive changes resulting from the voucher intervention, including benefits to maternal employment, household wellbeing, and child health and safety.

Discussion

While the PhotoVoice exercise was only one of the methods used to measure of the overall effectiveness of the voucher program, it is without doubt the most collaborative and participatory. Not only did this exercise provide an opportunity for mothers to reflect on the changes they experienced, it also provided community members with an opportunity to participate in the evaluation process by attending the exhibition and sharing their perspectives. Research indicates that traditional evaluation data collected by external evaluators is not always shared with communities. It may also be difficult for community members to understand the significance of the data (Guba and Lincoln 1981; Kramer et al. 2013). The visual nature of the data in this case was very accessible.

We consider PhotoVoice, as used in this study, to be a uniquely collaborative, participatory, and transparent approach to program evaluation. We argue that PhotoVoice challenges the assumed primacy of traditional researcher-led approaches by prioritizing the views of local beneficiaries and stakeholders. The mothers who participated in this PhotoVoice exercise, and in the second phase in particular, were extensively engaged in thinking about changes to their lives, their households, and their communities resulting from the voucher program. This was no small task, as it required time and dedication to go out and find the right scene, to take the picture from the best angle, and to made any number of other artistic considerations. Participating in the workshop, choosing which pictures best represented program impact, and captioning those photos, was also thoughtful and time consuming work. We see their willingness and dedication to this exercise as evidence that they were engaged and able to think critically about the impacts of the voucher program. This type of locally engaged participation is too often missing from conventional evaluation approaches.

Making this exercise public through community exhibitions was also key for allowing the mothers who participated in the PhotoVoice to discuss their photos and the impact of the intervention with attendees. At the same time, the mothers had a chance to see their work being appreciated by the community. The exhibition also created space for community members themselves to gain awareness of the changes that had taken place, and to add their own perspectives and experiences to the conversation. These events literally created space to engage in what Mitchel et al. (2017) refer to as "tracking change" from multiple perspectives and at numerous points during the project cycle.

Conclusion

In this paper, we have made an argument for the use of PhotoVoice as a participatory method for documenting changes resulting from community-level development interventions. In keeping with the broader goals of this evaluation, which drew on the participation of mothers to understand

challenges of balancing work and childcare responsibilities, this type of exercise extends the value of participatory research methods to play an evaluation role. There are implications for further research that stem from our experience here, particularly in relation to the role of participatory visual methodologies for program evaluation, and the value of community engagement and reflection in social research. Other researchers such as Theron (2012) have used visual exercises in an evaluative way, asking teachers participating in a project on HIV/AIDS and resilience to depict their views on program impact. Researchers adopting methods of participatory video and "most significant change," as described above, have likewise found that the process of media making can be central to the overall effectiveness of projects, in that it calls for community engagement and reflection. Given the many challenges to conducting community-level development projects and ensuring their sustainability, participatory evaluation through visual and creative exercises offers "good value," both socially and economically, for funders, researchers and participants alike.

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