

Training & Capacity Building

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Voices from the Field: Using Photovoice to Explore Impacts of Climate Change on Mental Health in Nepal

By Megan Avakian

This month, Megan Avakian sat down with Libby King MacFarlane to discuss her research on how climate change affects mental health in vulnerable populations in Nepal. MacFarlane, who is pursuing a dual master's degree in global health and business at Duke University, spent a summer in the Jumla District of Nepal working with women farmers to understand if photovoice - a participatory action research method - can be used as an effective and sustainable intervention to improve mental health in a low- and middle-income country.

Photovoice is a participatory research method that uses photos as a tool for deconstructing problems and questions raised by community members, with the goal of generating actionable solutions. The method enhances and builds community by allowing members to identify, reflect on, and address their own needs.

“The photovoice method involves participants in the research process as much as possible and, as a result, is a very collaborative and community-enhancing process,” said Libby King MacFarlane, who used the technique in Nepal to address issues of climate change and mental health. “Using images as a point of contact to start discussing complex community topics allows people to unpack issues slowly and organically until they arrive at an actionable solution,” she explained.



Photovoice participants practice using cameras. (Photo courtesy Libby King MacFarlane)

Building Trust and Being Flexible

In the Jumla district of Nepal, climate change is expected to exacerbate the threat of landslides, drought, and severe hailstorms, resulting in food shortages and community displacement. MacFarlane used photovoice as part of a [research project](#) to bring together two groups of women subsistence farmers in Jumla to understand how climate change impacts their mental health. The women chose to explore how water scarcity affects their well-being.

The research project's participants were recruited by the [Transcultural Psychosocial Organization - Nepal \(TPO\)](#), MacFarlane's implementation



MacFarlane's research assistant, Renu Shakya (right), collects consent from women participants. (Photo courtesy of Libby King MacFarlane)

partner. Her research advisor, [Brandon Kohrt, M.D., Ph.D.](#), has partnered with TPO on global mental health research projects in Nepal for over ten years. “Our relationship with a trusted and established local partner was key to helping me gain credibility in the community,” she said.

The standard photovoice model consists of five sessions held once a week. But given it was growing season, the women wanted to condense all five sessions into a single week. MacFarlane quickly learned how to be flexible when conducting research in a global setting. “To make our process conducive to the local need, we reframed our plan, and the women came prepared with their photographs every day over the course of the week.”

MacFarlane speaks little Nepali, so she relied on her research assistant, Renu Shakya, to facilitate dialogue with the women. MacFarlane said that building trust with Shakya was essential to the success of the project. “I had to trust that she was guiding the conversation but not being too leading with her questions, which is an integral part of the photovoice analysis process,” she said. To build trust with the women, MacFarlane credits team-building exercises consisting of yoga, song, and dance. “Having those genuine moments of connection outside of the actual research helped me gain the respect of the women.”

Group members worked with MacFarlane and Shakya to identify and develop themes emerging from their collective images and conversations. Together, they selected the themes, quotes, and images to display at two photo exhibits in the community. The caption to an image of dry, barren farmland read: “Due to lack of water, these cows lick on the soil...There is not water, life seems dried up.” Another image depicting a young child suffering from sickness caused by lack of safe drinking water represented the health impacts of water scarcity faced by the community.

Sustaining Efforts

It was evident in the exit interviews that the women recognized the benefits of sharing environmental best practices and the importance of building community capacity to adapt to and mitigate environmental issues in the community. They also reported feeling more confident and recognized the importance of sharing stories to ease pain. After the photovoice sessions, the women showed significant improvements in depression, anxiety, and resilience scores compared to before the sessions, further supporting the positive mental health outcomes reported by the women.



Community members attend the photography exhibit at the end of the photovoice project.

(Photo courtesy of Libby King MacFarlane)



MacFarlane with photovoice participants at the community exhibit.

(Photo courtesy of Libby King MacFarlane)

The lack of someone to train people how to use cameras and facilitate the sessions was a barrier to maintaining this practice in the community. “The exhibits, which are still up in the community, are one way I hope the photovoice technique and its associated benefits can be sustained in Jumla,” said MacFarlane. Community leaders, policymakers, and advocates from local non-profit organizations who came to the exhibits expressed an interest in continuing the photovoice groups in Jumla. The cameras remain with Shakya, who has plans to conduct other photovoice projects in the region.