

Beyond the Volcanoes: A Community Partnership for Health in Rural Nicaragua

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Background: Health inequities related to gender, ethnicity, socioeconomic status, and geography exist in rural Nicaragua. The purpose of this ongoing project is to improve health equity in rural Nicaragua through social transformation using community-based participatory action research. Bronfenbrenner's ecological model of human development, school health, and primary health care theories provided the framework for this research. **Methods:** Community-based participatory action research involves six phases: partnership, assessment, planning, implementation, evaluation, and dissemination. In the evaluation phase, the goal was to use the data obtained during the assessment, planning, and implementation phases to evaluate the cookstove intervention in its ability to reach the community's health-related goals. Pre- and post-test surveys were used to assess indoor air pollution including: kitchen layout, stove type, fuel usage, and women and children's health. **Results:** Forty-eight community members participated in the cookstove evaluation. Pre-test surveys indicated that the community members used open fire stoves in closed kitchen spaces with wood being the primary fuel source. Women reported suffering from headaches, eye irritation, and chronic coughing. One year following the implementation phase, post-test surveys indicated a sustainable, significant improvement in women's health ($p=.05$) but no significant change in the amount of wood used for cooking. **Conclusion:** Results from the cookstove evaluation were used by community members to guide the re-engineering of the cookstoves' firebox to decrease wood consumption and improve deforestation. Partnership in community health research provides a mechanism to engage community members in social justice through working toward a common goal – sustainable health for all.

Information about the Authors:

Paige Snyder and Catherine Wingstrom are senior BSN students and have been members of the community-based participatory action research team for the past three years. They have each traveled to Nicaragua multiple times throughout their undergraduate career to conduct research. Carly Crave, Claire Simonpietri, and Christina Lundy are junior BSN students and have been involved in the research project since 2012. They have also traveled to Nicaragua to conduct research in the past year. The students became interested in community-based participatory action research after learning about the project from Dr. Amy Cory, the faculty advisor, and through traveling to Nicaragua on the College of Nursing spring break trip. Paige, Catherine, Carly, Claire, and Christina all hope to continue working in partnership with the community in Nicaragua and the research team following their graduation.

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