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Realmente Tenemos la Capacidad: Engaging Youth to Explore Health in the Dominican Republic Through Photovoice

Catalina Tang Yan, Arelis Moore de Peralta,
Edmond P. Bowers, and Linda Sprague Martinez

Abstract

Youth are often at risk for physical and psychosocial illnesses, and yet their input is rarely included in health assessments and interventions. Two U.S.-based universities partnered with community stakeholders and youth in Las Malvinas II, Dominican Republic to explore factors that promote and/or hinder the health of youth in Las Malvinas II. Youth (n=8) conducted a photovoice, and identified six key health priorities: (1) good nutrition, (2) depression and poverty, (3) violence, (4) sports and neighborhood association, (5) education, and (6) sanitation and community infrastructure. Findings revealed youth's exploration of complex multi-level determinants of health. This study suggests youth have nuanced understanding in regards to health. This paper presents the findings of the photovoice led by the youth as an illustrative case study of using CBPR-based methodologies to engage youth in local community health improvement efforts in Las Malvinas II, Dominican Republic.

Community health assessment (CHA) is a process designed to determine population health priorities as well as to identify health promoting community assets and risk factors. CHA seeks to obtain and interpret data for the purpose of designing and implementing interventions to improve health (Cibula, Novick, Morrow, & Sutphen, 2003). Research indicates CHA and community health improvement plans in local health agencies have led to improved public health decision-making (Rabarison, Timsina, & Mays, 2015). Moreover, multi-agency partnerships and participatory approaches to CHA foster collaboration while also contributing more relevant local action plans, which have the power to influence local policy (Chudgar et al., 2014; Zahner, Kaiser, & Kapelke-Dale, 2005). Through inclusive participatory processes, community members can take an active role in CHAs. This also addresses power imbalances as health professionals and community residents co-design protocols, collect and analyze data, and disseminate assessment findings. Such strategies lead to recommendations and interventions that are mutually beneficial to community members and academic partners (Wallerstein & Duran, 2010).

Participatory approaches to research present opportunities to increase youth sociopolitical and leadership skills while contributing to their communities (Ozer & Douglas, 2013). CHA also provides opportunities for data collection and knowledge-building regarding youths' nuanced

perspectives on community health needs and assets that are often overlooked but can inform action initiatives to improve the health of communities (Brazg, Bekemeier, Spigner, & Huebner, 2011; Hebert-Beirne, Hernandez, Felner, Schwiesow, Mayer, Rak, Chavez, Castaneda, & Kennelly, 2018).

In 2016, faculty and students at Clemson University partnered with community stakeholders in the Dominican Republic to implement a CHA as part of the Building Healthier Communities (BHC) initiative, an ongoing collaborative effort between the Dominican Republic's private and public organizations and local and U.S.-based higher education institutions. Drawing from the CDC CHANGE Framework (Desai & Edwards, 2010), focus groups, interviews, and household surveys with community residents contributed to the identification of health priorities regarding the health of youth and families. While key stakeholders from multiple sectors including health care, education, and community-based organizations played a major role throughout the process, youth voices were not included. However, the health and well-being of youth emerged as an important community priority among adults. As such, researchers at Clemson University set out to explore a strategy to engage youth in the community CHA process.

This paper describes an expansion of Clemson University's CHA work in the Dominican Republic through a partnership with Boston University's School of Social Work in an effort to engage youth

in the CHA. More specifically, this paper describes a photovoice training protocol that was designed to engage youth in Las Malvinas II, Dominican Republic in an exploration of community health priorities. Steeped in critical pedagogy, this photovoice protocol curriculum draws from Freire's (1970) pedagogy that shifts the power dynamics between teacher and student, transforming both as co-creators of knowledge rooted in individuals' lived experiences. This paper adds to the literature by illustrating effective strategies for engaging community stakeholders and youth at local and international levels in collaborative health and development efforts through a community-based participatory research (CBPR) approach. Moreover, this paper details photovoice as a model to explore the complexities and perceptions of health-promoting risk factors from the lens of youth that could inform local and public policy efforts.

Background

Las Malvinas II is a vibrant community located in Santo Domingo that continues to experience multiple socioeconomic and environmental challenges. Over 1,500 residents live in substandard housing within 0.1 square kilometers, with mostly unpaved roads and underdeveloped infrastructure, where basic needs such as water and sewage are not met (López, 2009). In addition, the community is severely polluted by industrial waste and impacted by the lack of sanitation, health care, and other vital systems. Seventy percent of residents report being unemployed and nearly a third are illiterate (Universidad Iberoamericana [UNIBE], 2012). In an effort to improve local health and well-being, community leaders from the local neighborhood association in Las Malvinas II partnered with organizations from the public and private sector as well as local and U.S.-based higher education institutions. The aim of the partnership was to spearhead the BHC Initiative.

Building Healthier Communities Initiative

The BHC process began in Las Malvinas II in 2015 to foster multilevel partnerships and leverage community strengths to assess and improve the health outcomes of community residents. In order to institute healthier communities, university students and faculty partnered with UNIBE and the Las Malvinas II community leadership to culturally and linguistically adapt the missing into the CHA (Desai & Edwards, 2010). The BHC team

conducted a mixed-method CBPR to identify community priorities and assets through interviews, focus groups, and household surveys. Research questions explore multilevel factors from the socioecological framework (Bronfenbrenner, 1994) across the community at large, school, health care, community organizations/institutions, and work sectors. Drawing from evidence-based practices such as the CDC's CHANGE tool in other cultural contexts, this initial study sought to explore the following research question: What are the social determinants of health related to five health priorities previously identified by local adult residents in Las Malvinas II? Key public health priorities identified by local residents and stakeholders included: 1) education, 2) unwanted pregnancy, 3) sanitation, 4) vaccine-preventable diseases, and 5) chronic disease management (Scockling, Brown, Fuentes, & Moore de Peralta 2018). Although these results were valuable, and used to inform development of a collaborative community health improvement plan, the input from youth in Las Malvinas II was not included, even though the priorities were also relevant to young people, and they make up a significant portion of the population in the community. Therefore, in the present study, Clemson University and Boston University's School of Social Work collaborated with the local neighborhood association, La Junta de Vecinos, and *Universidad Iberoamericana* (UNIBE) to recruit, train, and engage youth in CBPR strategies such as photovoice to explore social determinants of health and health assets in their community.

Harnessing the Power of Youth and Communities

The BHC initiative employed a CBPR approach. CBPR presents key opportunities to engage local community residents and youth in decision-making to examine health inequities from their perspective and influence change in their communities (Sprague Martinez, Richards-Schuster, Teixeira, & Augsberger, 2018; Wallerstein & Duran, 2010). CBPR is a transformative research paradigm that conceptualizes community members as assets and agents of change (Minkler & Wallerstein, 2011). Instead of prioritizing the expertise of research institutions and power in decision-making, CBPR fosters partnerships with local communities that actively involve mutual collaboration and power sharing in decision-making throughout all stages of the research process (Israel, Schulz, Parker, & Becker, 1998).

While CBPR approaches to research have also expanded to international communities, limited scholarship has engaged youth to examine social determinants of health. In a systematic review that examined 399 articles relevant to CBPR between 1985 and 2012, only 15% of the articles included CBPR projects in which youth were included as community partners, and from those who engaged youth, only 18% involved youth in all phases of the research process (Jacquez, Vaughn, & Wagner, 2013). Employing participatory approaches to research where youth are not only assets but also change agents presents a multitude of positive outcomes for youth including increased awareness and critical consciousness on social issues (Foster-Fishman, Law, Lichty, & Aoun, 2010) and increased youth skill development (Zeal & Terry, 2013). It can also balance power dynamics between youth and adults through redistribution and power sharing (Cahill, 2007).

Leveraging Photovoice as a Strategy to Engage Youth

Photovoice presents a promising participatory methodology to empower youth to examine and enact change in their communities. Developed by Wang and her colleagues in the 1990s through their work with women in Yunnan province, China (Wang, 1999), photovoice has continued to be used extensively to explore social issues from the perspectives of marginalized youth and adults across multiple disciplines including education (De Los Ríos, 2017; Smith, Bratini, & Appio, 2012), public health (Wang & Burris, 1997; Wang, Morrel-Samuels, Hutchison, Bell, & Pestronk, 2004; Wang & Pies, 2004), and social work education (Bromfield & Capous-Desyllas, 2017). Serving as a form of participatory visual ethnographic inquiry, photovoice allows participants to explore a social phenomenon from their own perspectives by capturing images of their daily activities and environments (Streng, Rhodes, Ayala, Eng, Arceo, & Phipps, 2004; Wang, 2006). This particular method has been shown to be effective when engaging populations in the margins such as indigenous, homeless, and youth of color (Castleden, Garvin, & First Nation, 2008; Streng et al., 2004) in addressing topics that are stigmatized, such as immigration, mental health, and sexually transmitted diseases (Davtyan, Farmer, Brown, Sami, & Frederick, 2016; Fleming, Mahoney, Carlson, & Engebretson, 2009; Mizock, Russinova, & Shani, 2014; Streng et al., 2004). Furthermore,

the photovoice process has contributed to youth leadership and civic engagement in effecting change (Wilson, Dasho, Martin, Wallerstein, Wang, & Minkler, 2007).

There is a growing body of literature on local and international community health research and practice that employs photovoice as a strategy to engage individuals and communities in the margins in health development initiatives addressing community health priorities. Health priorities explored internationally through photovoice by youth have included: physical social determinants of health such as sanitation in Uganda (Esau, Ho, Blair, Duffy, O'Hara, Kapoor, & Ajiko, 2017); identity and resilience in Kenya (Dakin, Parker, Amell, & Rogers, 2015); HIV prevention in the United States and South Africa (Davtyan et al., 2016; Mitchell, DeLange, Moletsane, Stuart, & Buthelezi, 2005; Moletsane, Delange, Mitchell, Stuart, Buthelezi & Taylor, 2007); forced migration in Uganda (Green & Kloos, 2009); and maternal health in Uganda and in the U.S. (Musoke, Ndejjo, Ekirapa-Kiracho, & George, 2016; Wang & Pies, 2004). However, there is limited international literature that incorporates youth perspectives on health holistically, particularly in the Dominican Republic. In 2014, researchers trained street drug users in the photovoice methodology to explore factors that stigmatized the drug addiction epidemic in Santo Domingo (Padilla, Matiz-Reyes, Colón-Burgos, Varas-Díaz, & Vertovec, 2018). While this research used participatory approaches such as photovoice, it focused primarily on drug addiction and consumption. To the best of the researchers' knowledge, in addition to the photovoice research project that engaged street drug users in the Dominican Republic, this study is one of few that have engaged youth in the Dominican Republic in health development efforts using photovoice.

The main objective of this paper is to illustrate effective strategies to engage community stakeholders and youth to explore assets and social determinants to young people's health and well-being. More specifically, this paper discusses in detail photovoice as a model that engages community stakeholders and integrates youth voice in setting local and international level priorities relevant to health and community development. We describe the photovoice methods as well as findings presented by the youth at the community forum.

Table 1. Health Priorities Identified by Adult CHA and Youth Photovoice

	Adult CHA (2015)	Youth Photovoice (2016)
Chronic disease management	X	X
Vaccine-preventable diseases	X	X
Education	X	X
Sanitation	X	X
Unwanted pregnancy	X	X
Depression		X
Poverty		X
Violence		X
Sports and neighborhood association		X
Community infrastructure		X
Social media/chatting		X

Methods

Institutional Review Boards (IRB) at Clemson University, UNIBE, and Boston University reviewed and approved the assessment protocol, with the primary IRB being Clemson University. In order to determine health priorities, youth implemented a weeklong photovoice project in Las Malvinas II, Dominican Republic.

Sample

Eight youth participated in a weeklong photovoice study. Youth ranged in age from 18 to 24 years old (M=20.25, SD=2.05). Five of eight participants self-identified as male (62.5%) and three of eight participants identified as female (37.5%). All youth participants were born and raised in the Dominican Republic and Spanish was identified as their first language. Three were high school graduates (37.5%), two were high school seniors (25%), and three were freshman, sophomore, and junior in high school, respectively.

Procedures

This study incorporated a two-phase non-random sampling strategy (Devers & Frankel, 2000) to identify photovoice participants (n=8). First, purposeful sampling strategies were used by the local partner university representative and the neighborhood association president to identify key adult and youth leaders from the local neighborhood association in Las Malvinas II. Next, using snowball sampling (Noy, 2008), key adult and youth leaders were asked to identify youth members of their networks to participate. Once participants were identified, they were invited to attend the photovoice sessions.

Drawing from Nuestro Futuro Saludable’s critical service learning, health equity, and action

curriculum (Martinez, Ndulue, & Peréab, 2011), adult researchers facilitated training to youth participants. A critical pedagogy framework was incorporated into the training where youth identified and examined prioritized health assets and threats in the context of their lived experiences in their communities. Critical pedagogy positions youth as experts of their own lives that actively co-construct an understanding of key issues to transform their realities (Bellino & Adams, 2017; Price & Mencke, 2013). Research activities were designed specifically with the understanding that youth are equipped with a wealth of knowledge and skills; thus sessions were tailored to be dynamic providing ownership to the youth over the course of the project. Youth participated in three full-day photovoice sessions (see Table 1).

Session 1

Youth participated in team-building activities to develop positive relationships and get to know each other. In addition, youth also brainstormed on group agreements to create brave and positive learning spaces. Then, youth defined health in their own words and identified facts that promoted or hindered health through a collective brainstorm. Adult facilitators led a series of visual and storytelling narrative exercises where youth reflected on examples of health assets and threats at the individual, interpersonal, and community level. Adult facilitators took notes of youth responses and emerging themes on large flipchart paper throughout the group brainstorm and discussion.

With the intention to equip youth with a critical understanding of their lived experiences and the various factors that influence youth health, adult facilitators introduced social determinants of health and the socioecological model

(Bronfenbrenner, 1994) using visuals and applying them to examples of personal anecdotes told by the youth. Followed by the introduction of key concepts, youth selected key health priorities through a democratic voting process. Next, youth were trained in photovoice methodology. This training included basic photography, camera usage, and ethics.

Session 2

During the second day of the photovoice session, youth focused on data collection and analysis. Youth were divided into small groups of two and three, and each group received a digital camera, which they used to take photos around their community relevant to the health priorities identified in the first photovoice session. Youth spent the second half of the session presenting the images captured and analyzing the photos collectively using the SHOWeD process drawing from Wang's (1999) research that will be further described. As a result of the analysis and discussion of the images, youth created photo essays and captions that explored more in-depth the health priorities identified by the youth. Final images based on clarity and relevance to the health priority were selected and edited by the youth.

Session 3

In the final photovoice session, youth planned and implemented strategies to disseminate their findings with the community. Youth planned and presented at a community forum in Las Malvinas II. Adult facilitators provided logistical support, which included printing photovoice images and captions and communicating with the local neighborhood association to support with recruitment and outreach of key community stakeholders to attend the forum.

Analysis

Youth collected 130 photos and through a democratic voting process, they evaluated the quality and concept of each image and chose 17 that best represented the health priorities identified. After the images were selected, youth were asked to title and write a short essay caption for each image. Using the SHOWeD mnemonic framework (Wang, 1999), researchers facilitated the writing process by moderating discussions with youth on: 1) What do you See?, 2) What is really Happening?, 3) How does it relate to Our lives?, 4) Why does this problem, concern, or strength exist?, and 5) What can we Do about it? With the support of

undergraduate Clemson University students as well as Clemson University service-learning students, youth participants, in small groups, analyzed and discussed emerging themes found in the images, while college service-learning students provided support by writing verbatim youth reflections to accommodate their multiple literacy levels. Each group of youth presented their images and write-ups to their peers in the larger group and incorporated additional suggestions from their peers. Images and in-depth discussions were analyzed carefully using the SHOWeD guide and collective write-ups of each image were drafted.

Once images were selected and written and descriptions of each image completed, youth presented their findings to community residents and stakeholders including members from the local neighborhood association and municipal government. By fostering dialogue between youth and adults, participatory photovoice efforts can contribute to creating a youth/adult partnership model in the planning of the health interventions and community initiatives with municipal institutions as well as the neighborhood association.

Results

Youth participants identified health priorities and assets that were different from those identified during the adult CHA. These themes, identified in Table 1, included: depression, poverty, violence, sports and neighborhood association, education, sanitation and community infrastructure, and social media. This paper presents the photovoice images presented by youth at a local community forum. Community health assets such as the local neighborhood association, access to good nutrition, sports, and green space are discussed, as well as community threats such as violence, depression, lack of sanitation, and underdeveloped community infrastructure. Youth created recommendations particularly with the intention to remediate and prevent negative health outcomes. In the sections that follow, images are discussed along with the captions youth developed based on the SHOWeD framework. Photo essays and write-ups were written by youth in Spanish and the research team translated them to English. Although youth agreed with the five health priorities identified by adults initially in 2015 as part of the BHC process, youth also explored additional health priorities that reflect more nuanced perspectives regarding the root causes and upstream factors in the social environment that impact the health and well-being of youth in Las Malvinas II (see Table 1).

Good Nutrition

Youth identified good nutrition as a factor that promoted youth health and well-being. A youth took a photo that depicts produce and snacks at a “colmado” (corner store, also usually a social gathering place) store in their neighborhood. Contextual factors that influenced access to healthy food were not discussed. A youth stated:

(Spanish) *La buena alimentación es muy bueno porque podemos comer saludable, y además podemos estar en buena forma.... Los alimentos deberían de estar organizados, y limpios, en buenas condiciones.*

(English) A good nutrition is very good because we can eat healthy and also be in good shape.... The food should be organized, clean, and in good condition.

Depression and Poverty

In addition to physical health, youth also identified mental health and depression as a key health priority to their overall well-being, which was not included in the adult-led assessment. In Image 1, a woman is shown covering her face with her hands. A youth described the situation like this:

(Spanish) *Es cuando una persona tiene demasiados pensamientos, y tiene actitud depresiva, molesta, agresiva.*

(English) It's like when a person has a lot of thoughts and has a depressive, annoyed, and aggressive attitude.

Moreover, youth associated depression with other health threats and described potential causes as well as solutions:

(Spanish) *Surge por la salud que los afecta, enfermedades como: el VIH, sida o cáncer. Pueden ser ayudados por el familiar. Como solución proponemos ir al psicólogo buscar tratamientos, interactuar con los demás, tener confianza, fe y por más problemas que tengamos podemos solucionarlos.*

(English) It originates from the health that affects them, diseases such as HIV or cancer. They can be helped by a family member. As a solution, we suggest to go to the psychologist to look for treatment, interact with others, have trust, faith, and no matter how many problems we have, we can solve them.

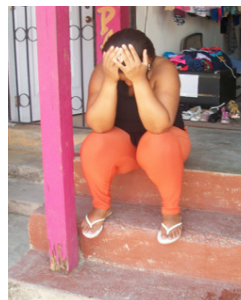
In addition to chronic health diseases as potential causes of depression, youth also described associations with broader economic conditions such as poverty and misery as major factors that lead to depression. Regarding Image 2, a youth said:

(Spanish) *El problema es la miseria, lo cual puede llevar a la depresión. En esta casa duerme una persona a pesar de las condiciones en que está. Surge por problemas económicos y por la falta de empleo.*

(English) The problem is misery, which can lead to depression. In this house, a person sleeps despite the condition it's in. It's caused by economic problems and unemployment.

Violence/Lack of Safety

Youth across photovoice sessions also spoke about repeated experiences and continuous exposure to violence in their communities. Among events described by the youth that impacted their lives, their families as well as their communities, a youth wrote in one of the narrative exercises: “Un hombre que mató a su mujer” (“a man that killed his wife”). Furthermore, even when youth identified factors that promoted their health in their built-in environment such as green space, lack of safety was identified as a continuous health threat that limited access to community assets. In a segment entitled “Área verde insegura” (Unsafe Green Space), a youth described a photo of an open green space like this:



(Spanish) *No todo se ve tan mal en nuestra comunidad, Las Malvinas, porque mira lo lindo que se ven en esa foto ahí... El área verde puede ser una zona turística y de recreación.*



Images 1 and 2. Poverty leads to depression.

(English) Not everything looks that bad in our community, Las Malvinas, because look how pretty it looks in that photo... the green space can be a tourist and recreation zone.

Youth recognize green spaces as a key asset to the well-being of the community. However, youth also identified feeling unsafe as a factor that limited the frequency of accessing this space. While the green space had potential to be a recreational space for families, youth did not use the space frequently due to fear of being harmed. They further explained:

(Spanish) *Porque tenemos miedo de que nos pase algo, de ser atracado o maltratado por la delincuencia.*

(English) Because we're afraid that something will happen to us, of being robbed or abused by delinquency.

In order to address this matter, youth recommended implementing systems to increase safety and surveillance by:

(Spanish) *Tomando las medidas necesarias con un plan de vigilancia para darle seguridad y paz a las personas en nuestra comunidad.*

(English) Taking the appropriate measures with a security plan to provide safety and peace to the people in our community.

Sports and the Neighborhood Association

Among community assets the youth identified, in addition to access to green spaces, were the positive impact of sports and the community neighborhood association. Youth captured various signs in the community. As a response to the public community sign, “*Dile si al deporte, no a las drogas*” (“Say yes to sports and no to drugs”), youth highlighted the role of sports and community-led groups in promoting youth health and well-being in the face of adversities:

(Spanish) *Estos letreros son muy importantes porque llevan un mensaje educativo para nosotros los jóvenes, alejándonos de los malos vicios y enfocándonos más en los estudios y en el deporte. Y así, podemos ser mejores personas para la sociedad.*

(English) These signs are very important because they carry an educational message to all of us, the youth, stirring us away from bad vices and shifting our focus instead on school and sports. This way, we can be better people in society.

Moreover, youth also spoke about the role of the grassroots local neighborhood association in advocating for the development of sport facilities that promote youth health and well-being:

(Spanish) *Podemos contar con el apoyo de la junta de vecinos. Ellos nos ayudan a resolver nuestros problemas en la comunidad con la basura, el deporte. Por ellos, tenemos la cancha y voleibol.*

(English) We can count on the support of the Neighborhood Association. They help us resolve our problems in the community regarding trash, sports. Because of them, we have the basketball and volleyball court.

Education

Similarly to adults, youth also identified education as a health priority associated with the well-being of youth in Las Malvinas II. While adults' emphasis was heavily on increasing education outcomes, photovoice revealed multiple barriers youth experience when accessing a high-quality education. Youth unanimously identified school's infrastructure and resources as a major concern: “*Me Asfixio en esa Aula*” (“I'm suffocating in that classroom”). Youth captured photos of spaces where students have class and play during recess (Image 3). Youth say:

(Spanish) *Esta aula no está apta para educar a los alumnos porque está en una marquesina, un lugar donde guardan los vehículos y nosotros pensamos que no está apta para la educación.*

(English) This classroom is not in adequate condition to educate students because it's a garage and we think that it's not appropriate for education.

Moreover, youth presented various recommendations including:

(Spanish) *Construir una escuela y cuidarla.*
(English) Build a new school and take care of it.



Image 3. "I'm suffocating in that classroom."

(Spanish) *Abrir una escuela de bachillerato porque muchas veces no tenemos recursos para poder ir a otra escuela. No tenemos dinero para coger a otro lugar.*

(English) Open a new school because a lot of times we don't have resources to go to another school. We don't have money to go somewhere else.

(Spanish) *Mejorar para que los alumnos tengan un ambiente sano porque no pueden respirar por el polvo.*

(English) Improve so students have a healthy environment because they can't breathe due to the dust.

Youth further explained how poor school conditions influenced students' academic engagement and interest:

(Spanish) *Porque hay niños que no quieren ir a la escuela porque eso es una casa, una aula donde dan clase... y en la marquesina. El recreo es en la galería, no tienen espacio para divertirse en su hora de recreo....*

(English) There are kids who don't want to go to school because that's a house, a classroom where class is held... and at the "garage." Recess is at a gallery, they don't have space to have fun during recess.

Sanitation and Community Infrastructure

In addition to education, adults as well as youth identified sanitation as a key health priority. Youth captured photos depicting large bodies of still, contaminated water generated by the factories as potential threats exposing youth to develop multiple diseases. In Image 4, the youth explained:



Image 4. Contaminated water generated by the factories is caught on camera.

"El agua aposada por mucho tiempo causa gripe, mal olor, y entre muchas enfermedades" ("The still water sitting for a long time causes bad smells and colds, among other diseases"). Despite these challenges, youth demonstrated a strong sense of collective responsibility and action by sharing recommendations to improve the sewage and draining system:

(Spanish) *Debemos colaborar entre todos y evitar esto, porque con una mano amiga se puede. Un hoyo sumergible, alcantarilla debería hacerse parar que no se acumule. Porque llueva o no llueva, como quiera esa agua se queda ahí acumulada.*

(English) We should collaborate among all of us and avoid this from happening, because with a friendly hand, everything is possible. A submersible hole sewer should be created so it prevents it from accumulating. Because whether it rains or not, that water remains there accumulated.

Furthermore, inconsistent curbside trash collection for residents was found to be associated with negative health outcomes for the community. In Image 5, *"Esta es la solución a la basura"* ("This is the solution to trash"), youth captured a group of residents throwing trash bags on the garbage truck. A participant stated:

(Spanish) *Tener el ambiente limpio. Mandarlo más a menudo, porque ahora mismo, el camión a veces dura un mes para pasar y se acumula mucha basura y esto causa contaminación y nos afecta en la salud.*

(English) To send it (garbage truck) more frequently, because right now, a month

goes by for the truck to come and lots of trash accumulates causing pollution and impacting our health.

Youth further explained institutional power from the factories was a key determinant to this health threat:

(Spanish) *Porque a veces viene y se queda recogiendo la basura de las fábricas por su dinero y la de la comunidad, no las recoge porque el camión se llena con la basura de la fábrica.*

(English) Because sometimes it (garbage truck) comes, and it just picks up the trash from the factories because of their money, and the trash from the community doesn't get collected because the truck is full with the factory's waste.

Moreover, youth also added the role of money and buying power associated with waste collection:

(Spanish) *Ponemos la basura en la esquina y el camión no se la lleva. Y cuando tú vas a botar la basura y no estás ahí para tirarla, ellos te la dejan. Si tú le pagas, ellos la pueden echar al camión, si no le pagas, ellos la dejan ahí.*

(English) We place the trash in the corner, and the truck does not take it. And when you go to throw the trash away and you're now there to throw it to the truck, they leave it there. If you pay them, they will put it in the truck, but if you don't, they will leave it there.

In addition to waste collection and sanitation, street pavement and maintenance was also identified as a key health threat to the well-being of youth in the community. Youth felt local political candidates and elected officials were not accountable to meeting the youth and the community's needs, particularly the condition of the street pavement. *"Prometen y nunca cumplen"* ("They make promises but never keeping them," a youth said (Image 6).

(Spanish) *Estamos todavía en espera de que arreglen las calles, porque para tiempo de campaña, el síndico de Santo Domingo Norte siempre promete y nunca cumple con tal de que le den los votos. Y así nosotros somos engañados por los candidatos políticos. Porque cuando llueve todo se*



Image 5. Youth captured a group of residents throwing trash bags on the garbage truck.

llena de lodo, un "bache." No podemos salir. Tiraron los contenes y pusieron la tubería por debajo de la calle para poder tirar las calles y todavía nada, estamos en espera.

(English) We're still waiting for the streets to be fixed, because during campaign time, the governor of Santo Domingo Norte always makes promises that he never keeps unless he gets votes. And so, we're deceived by the political candidates. Because when it rains, it's all filled up with mud. We cannot leave. They put some containers and pipes under the street so they could pave the streets but nothing still, we're still waiting.

Discussion

We conducted a CBPR photovoice with eight youth from a low-resourced community in the Dominican Republic to identify health priorities from a youth perspective. Photovoice findings revealed youths' nuanced experiences in regard to health and well-being. Youth grappled with multilevel social determinants of health in the context of the socioecological model at the individual, interpersonal, and community level. Youth drew complex relationships of health threats at the institutional broader level such as lack of economic opportunities and how it can be potentially associated with individual health outcomes such as depression. Although youth agreed with the initial health priorities identified by adults, youth explored the complex relationships between these and the potential impact on individuals' health and behaviors when analyzing these priorities (Table 1). For example, when looking at education, while youth agreed with adults' initial prioritization to expand and enhance the infrastructure of the only school in the community in 2015, youth also examined limited

financial resources and poor infrastructure as social determinants that impact students' motivation to stay in school or further continue their high school education. In the photovoice sessions, youth also talked about the role of multiple barriers that could complicate youth access to education such as financial constraints, teen pregnancy, and violence. Young women's health outcomes were at the crossroads of supporting financially their families and returning to school while also facing intimate partner violence. Youth described women in their communities being murdered by their husbands in the photovoice storytelling exercises. Moreover, a mother of one of the youth participants informed her daughter about a man that murdered his wife and was on the way to make a phone call to the wife's family. Although research suggests photovoice as an appropriate tool to learn about the experiences of youth with topics that may carry a level of stigma such as violence (Chonody, Ferman, Amitrani-Welsh, & Martin, 2013), further research should explore approaches to consider incorporating additional socio-emotional support to youth participants to cope with the traumatic impact of violence.

Youth identified the local neighborhood association, sports, and green spaces as potential community health assets that were dynamic and constantly interacting with health threats such as lack of safety, poverty, and lack of community stakeholders' accountability. For example, in *Área Verde Insegura* (Unsafe Green Space), youth examined environmental factors that can be an asset and a threat simultaneously. While green space represents opportunities for enrichment and community building, lack of safety transforms this health asset into a threat to community safety. Prior examinations of contextual assets and institutional resources present in the environment (Theokas & Lerner, 2006) have not discussed in



Image 6. Street pavements are promised but never kept, a youth said.

depth the factors that may impact individuals' access to these assets, especially from the perspective of youth. This duality speaks to the complexity of youth experiences and perspectives that differ significantly from adults and affirms that these perspectives are important to capture and recognize when designing community health assessments and intervention plans. Congruent with the literature, photovoice findings speak for the nuanced perspectives on health assets and threats that youth experience in their communities (Brazg et al., 2011; Sprague Martinez, Gute, Ndulue, Seller, Brugge, & Peréa, 2012; Hebert-Beirne et al., 2018). While some of the health priorities identified by adults aligned with some of the priorities youth identified (see Table 1), such as education and sanitation, additional health priorities such as violence and community health assets such as sports and the local neighborhood association capture youth nuanced experiences and perspectives often overlooked by adults.

The photovoice process also allowed youth to build and use important life skills. For example, youth exhibited critical consciousness (Diemer, Rapa, Voight, & McWhirter, 2016) and the capacity to analyze, navigate, and challenge structural and social inequities in examining the role of power in the provision of sanitation resources and street maintenance. In studies of youth, critical consciousness mitigates the impact of inequities and predicts better health, academic, career, and civic outcomes in marginalized youth (Diemer et al., 2016). Therefore, through CBPR activities such as photovoice, youth are likely to develop the abilities that will help them to develop the agency and competence to challenge oppressive structures and inequities to set their own paths (Diemer et al., 2016). In accordance to the CBPR approach (Sprague Martinez et al., 2018; Wallerstein & Duran, 2010), multilevel partnerships and participatory approaches to exploring health and well-being of youth in the community yielded not only rich qualitative data, but also contributed to further active engagement of youth as experts in the Building Healthier Communities initiative, fostering dialogue between youth and adults to effect change (Wilson et al., 2007).

After youth presented their findings at the community forum, residents and key community stakeholders, neighborhood association members and representatives from various governmental and non-governmental organizations in attendance recognized the knowledge and contributions of

youth and expressed interest in partnering with youth to support municipal efforts in the planning and implementation of educational strategies with the community. This multilevel community/academic partnership presents opportunities for the community as well as interdisciplinary educational institutional efforts, including social work practitioners to collaborate and contribute to local health and development abroad and in the United States.

Limitations

Analyses presented here were developed in the span of a weeklong series of photovoice sessions by a group of eight youth who were referred by the local neighborhood association. Future studies engaging a larger group of youth from multiple ages between 12 to 17 years old would uncover additional themes particular to their experiences. Additional future research may also replicate this model across different groups of youth to determine similarities and differences based on comparing different demographic characteristics. Youth were divided into small groups and were given one camera to capture images. While this fostered teamwork and collaboration, images may have been influenced by youth holding the camera. Future photovoice sessions should provide individual cameras to all youth and allocate further time for discussion of their lived experiences in the context of a deeper application of the socioecological model in their community. Due to limited time of the sessions, while key themes emerged throughout the discussions among youth, not all of these themes were captured through images during the photovoice sessions. Allocating increased time can yield further nuanced perspectives on the health and well-being of youth integrating the complex intersectional identities of youth across class, gender, ability status, race, religion, etc.

Conclusion

Youth reflections as well as adults' experiences have demonstrated that this community-based participatory research photovoice approach presents multiple benefits to the community and collaborating institutions. Not only did it provide opportunities to engage youth meaningfully within their social environment by capturing images, participating in critical analysis, but it also involved youth in the planning and implementation of health initiatives in partnership with adults and multilevel community stakeholders in Las Malvinas II, Dominican

Republic. These benefits were affirmed by the words of Danilo, who wrapped up the week by stating:

(Spanish) *Bueno, qué puedo decir?... Me he quedado sin palabras de verdad que sí... gracias por llegar acá a las Malvinas y realmente por el apoyo por ayudarnos a saber que realmente tenemos potencial y salir adelante. Realmente nosotros tenemos la capacidad... o sea... nunca dudar del potencial que nosotros tenemos. Porque realmente, nosotros los jóvenes tenemos una capacidad. Podemos vencer cada obstáculo. Y si nosotros podemos vencer cada obstáculo, hay que seguir... con la frente en alto.*

(English) Well, what can I say?... I'm left without words honestly. It's been amazing.... Thank you for coming here to Las Malvinas and also for your support in helping us know that we really have the potential to move forward. We're really capable, I mean never doubt the potential that we have. Because really, we, the youth, have capacity...we can overcome every obstacle. And if we can overcome every obstacle, we have to move forward with our heads up.

While literature suggests CHAs have the potential to generate a deeper understanding of the health of a population through research, CBPR photovoice approaches can complement CHA by including voices left out in the CHA process. Fostering collaboration and creative approaches to community-driven research, CBPR photovoice empowers youth by supporting the development of critical analyses of their lived experiences and social determinants of health. Incorporating these findings and approaches to enhancing the health of communities can yield to key contributions in policy.

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