

Photovoice as a Tool to Enhance Mother/Daughter Communication about Girls' Health Issues

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Abstract

The health of girls and the women they become is vital to the health of the communities in which they live. Supporting and advocating for girls' health requires a communication process that will facilitate the creation of a collective understanding and vision among community residents. Mother-daughter dyads from a Midwestern, low-income, urban community took part in a pilot Community-Based Participatory Research (CBPR) program which used photovoice as a mechanism to promote discussion about girls' health. The program's two aims were: 1) to increase communication between mothers and daughters related to teen issues and 2) to generate photographs and conversation about issues related to girls' health. An increase in overall comfort in talking about teen issues was observed in teens but not in mothers. Moreover, the photovoice process identified common themes related to girls' health. Findings support that the photovoice process may enhance mother/daughter communication around health issues and support parent/teen communication skill building.

Key Words: photovoice, girls' health, communication

Photovoice as a Tool to Enhance Mother/daughter Communication about Girls' Health Issues

The health of girls and the women they become is vital to the health of the communities in which they live. Support and advocacy for girls' health, as well as social change in communities, requires a framework of communication that is iterative, relational, and follows a process where consensus is achieved and mutual community-level change occurs (Figuroa, Kincaid, Rani, & Lewis, 2002). Change in communities also requires an exploration of the needs of the community members that includes and values the inherent knowledge and expertise of their lived experience. Community-Based Participatory Research (CBPR) is well-suited to address this need because it is an approach to research in which the researchers, typically community outsiders, partner with community organizations and other community stakeholders who provide expertise in community issues and insider knowledge about life within the community (Israel, Eng, Schulz, & Parker, 2013). Through the partnership, community issues are identified and relevant solutions in the form of an action plan can be generated.

Photovoice is a specific CBPR method which gives a voice through images and narratives for those in the community who typically do not hold positions of power. Participants are provided cameras to take photos related to strengths or concerns in their community, which are then shared with community decision-makers to stimulate social change. The images taken and narratives crafted by the participants in a photovoice program identify community assets and needs and launch critical group discussion and communication around personal experiences and knowledge of important issues. The methodology draws from principles of feminist theory, documentary photography and critical consciousness (Wang & Burris, 1994/1997).

Convergence theory (Kincaid, 1979; Rogers & Kincaid, 1981) is well suited to understand the use of photovoice in the context of a CBPR program. This theory focuses on the importance of sharing information and creating mutual understanding and agreement to create social change. Interpersonal communication is critical in facilitating this process of change (Figuroa, Kincaid, Rani & Lewis, 2002). The underlying tenets of each (CBPR and convergence theory) align as they both utilize a participatory process to co-create knowledge and facilitate common understanding on a topic or issue,

and assume that dialogue, communication and participation of group members are equal (Israel, Eng, Schulz, & Parker, 2013; Kincaid, 1979; Rogers & Kincaid, 1981; Figueroa, Kincaid, Rani, & Lewis, 2002). In photovoice, ongoing dialogue about an issue and action related to that issue are created through the display of the photos in a public forum. Convergence theory espouses that, through communication, community members are encouraged to create a dialogue on relevant issues determined and agreed upon by the community members themselves. It also assumes that communication needs to be evaluated within the context of the community and the situation. Photovoice builds on this model by providing a safe, structured, and guided forum in which these conversations can take place around certain issues that are represented by the images that participants create.

Communication has typically been described as an individual, linear process in which one person is the message sender and the other the message receiver. Conversely, a communication network, is seen as a "mutual information exchange" based on the "convergence model of communication" (Rogers & Kincaid, 1981, p.xi) and can facilitate social change. The convergence model is an iterative process in which two or more people share information in order to achieve a common purpose, such as a greater understanding about a topic/issue or to create action (Rogers & Kincaid, 1981, p. 31). Emphasis is placed on the relationships rather than the individuals. Some of the assumptions of this model include the fact that 1) communication is not linear, 2) communication focuses on the relationship of those involved, 3) communication needs to be evaluated within the context of the community and situation, 4) communication also involves paying attention to what is not said, such as pauses in speech, rate of speech and timing and 5) communication needs to focus on attaining mutual understanding rather than trying to persuade or change someone's mind. Photovoice can be a viable tool for facilitating this model of communication, yet it has not been proposed in previous research as a method to enhance communication nor has it been explored using the convergence model.

Parent-based interventions, such as shared activities, guided practice, demonstrations, and role-playing, have been used to enhance parent-child communication, particularly around sensitive topics such as sexual health (Santa Maria, Markham, Bluethmann & Mullen, 2015). Yet, no studies have utilized the method of taking photographs and creating discussions around these photos. Therefore, photovoice has potential to fill a need in girls' health as an emerging strategy to enhance health communication.

Researchers have employed photovoice to examine health issues in a variety of populations including adolescent girls. Girls issues explored include mathematics (Harness & Stallworth, 2013); health and body image (Shea, Poudrier, Chad, & Atcheynum, 2011; Shea, Poudrier, Thomas, Jeffery & Kiskotagan, 2013); gender, citizenship and schooling (Ingram, 2013); sports (Leipert, Scruby, & Meagher-Stewart, 2014); HIV, AIDS and violence (Umurungi, Mitchell, Gervais, Ubalijoro, & Kabarenzi, 2008); and perceptions of health (Vaughn, Rojas-Guylar, & Howell, 2008). Photovoice has also been used with youth to conduct a community assessment (Hannay, Dudley, Milan, & Leibovitz, 2013), explore the health needs of college students (Goodhart, 2006), and develop action steps for girls' health (Miller & Vaughn, 2015). However, no prior photovoice studies examining girls' issues involve mother-daughter dyads as participants. Moreover, how the process of photovoice facilitates communication among participants, more specifically among mothers and their teenage daughters, has not been described in the literature.

Findings from a prior study that assessed the health status of females living in this Urban region indicated there was a lack of community-level information related to girls' health and wellness (The Women's Fund of Greater Cincinnati Foundation, 2005). Therefore, a pilot photovoice program was developed to address girls' health. The purpose of this pilot program was to generate photographs and conversation around the questions: 1) What is a healthy girl?; 2) What in this community helps girls to be healthy?; and 3) What are the barriers to girls' health in this community? The purpose of this article is to report on how participation in this photovoice program promoted positive communication regarding girls' health among mother-daughter participants.

Methods, setting and recruitment

Harmony Garden, a community non-profit organization, in collaboration with other Greater Cincinnati (OH) and Northern Kentucky community partners (e.g., Center for Great Neighborhoods, Partners in Prevention, Campbell County YMCA, and Northern Kentucky Health Department), sponsored the 7-week photovoice pilot program. This community-based participatory research program took place in Covington, KY. It was part of a larger *Healthy Community Healthy Girls (HCHG)* initiative which was designed with and for two low-income communities situated near a large urban core to better understand the specific needs of girls residing in these communities.

Recruitment of mother-daughter dyads was accomplished using a variety of sampling methods. First,

as a way of introducing the program, the program team presented a brief overview at meetings of the Covington Neighborhood Collaborative and the Covington Partners in Change, which occurred at one of the partner organizations. Attendees were encouraged to invite mother-daughter dyads living in their neighborhoods to participate in the program. Second, flyers were posted at various community-based organizations (e.g. YMCA, Covington Center for Great Neighborhoods) and schools. Mother-daughter dyads interested in participating contacted Harmony Garden to obtain more details and enroll in the program. A total of six mother/caregiver-daughter dyads participated in the program. One mother attended with two of her daughters for a total of 13 participants.

Photovoice Program Design

The photovoice pilot program took place during seven consecutive weeks in Spring 2011. The curriculum is outlined in Table 1. Dyads had to live in the community for 5 years or longer and girls had to be between 11 and 17 years old. The program meetings took place each week at a local middle school, lasted approximately two hours, and were facilitated by two doctoral students (1 in psychology, 1 in nursing). During the week 1 session, the participants were provided information about the program purpose/overview and the planned activities and also completed consent forms,

demographic information, and the program measure (*Comfort Talking* scale). During the week 2 session, participants received digital cameras, instructions for their use, and tips for creating good photographs. The mothers and daughters discussed and identified two prompts from which to generate approximately ten photographs between Weeks 2 and 3.

- 1) *What helps girls be healthy in this community?*
- 2) *What are the things that get in the way of girls being healthy in this community?*

Starting with the week 3 session, each participant selected two photos to present and discuss with the group during week 3-6 sessions. Five questions guided the group discussion (Wang, 1999): 1) What do you see?; 2) What is really happening?; 3) How does this relate to our lives?; 4) Why does this problem or strength exist?; and 5) What can we do about it? Individual and group reflections were recorded and presented back to the group for consensus and confirmation that the information was recorded correctly. During the final session (week 7), participants completed the two measures again along with a program evaluation. Participants received dinner at each of the sessions, a YMCA membership for 3 months, and \$100 for the dyad upon completion of the program.

Table 1 *Overview of Photovoice Curriculum*

Session 1: Introduction to Photovoice, consent, measures
Session 2: Distribution of cameras and photography basics & ethics
Photo assignment #1 Assets to girls health
Session 3: Photo sharing and discussion
Session 4: Photo sharing and discussion
Photo assignment #2 Barriers to girl's health
Session 5: Photo sharing and discussion
Session 6: Photo sharing and discussion; Discussion of dissemination of results
Session 7: Post assessment measures; Planning photo exhibit

Measure

The 18-item Comfort Talking Scale was used to gather data from mothers and daughters about their comfort level in talking about girls' issues. Answer options included "very comfortable", "sort of comfortable", "not sure, don't know", and

"uncomfortable." Examples of issues addressed included discussing how the teen looks, getting along with friends and family, fitting in, being overweight or underweight, eating healthy, getting enough exercise, doing well in school, getting into college, having a boyfriend/girlfriend, pressure to drink, smoke, drugs,

war or terrorism, and violence in school and community. Scores on individual items were summed to yield a total comfort-talking score (range 18-72) with higher scores indicating higher levels of comfort in talking about girls' issues. Differences in pre- and post-intervention scores were used to quantitatively examine whether the photovoice process enhanced communication between mothers and daughters.

Evaluation

Following the program, participants were asked to share their feedback on 2 questions:

- 1) *What were the best things about this program?*
- 2) *What things would you change about this program?*

The discussion was audio-recorded and transcribed verbatim.

Data Analysis

Quantitative data analysis of the comfort talking scale was conducted using SPSS (Version 21, 2012) and included descriptive statistics (frequencies,

percentages) and paired sample t-tests to assess changes in individuals' pre- and post-scores on the comfort-talking scale. For some of the analyses, responses for the measure were collapsed to create new dichotomous category (comfortable/uncomfortable).

Photovoice sessions were audio-recorded and transcribed. Two members of the research team analyzed transcripts of the qualitative data generated in the group discussion of the photographs to develop initial line-by-line codes (Charmaz, 2006) using the process of constant comparative analysis (Glaser & Strauss, 1967). The codes were then grouped into themes. Similarly, qualitative data from the evaluation questions were summarized and analyzed for themes using the constant comparative technique.

Results

Seven teens and six mothers/caregivers participated in this pilot program. The teens were in 7-11th grades, of which 62% were non-Hispanic White and 38% were non-Hispanic African American. Characteristics of participants are listed in Table 2.

Table 2 Participant characteristics

Descriptor	Frequency	%
# of participants		
Mothers/guardian	6	46%
Teens	7	53%
Grade level (teens only)		
7 th grade	2	28.5%
8 th grade	1	14.2%
10 th grade	2	28.5%
11 th grade	2	28.5%
Ethnicity		
Non-Hispanic White	8	61.5%
Non-Hispanic African-American	5	38.4%
Mom's health (self report)		
I am not that healthy & wish I was healthier	6	100%
Teens health (self report)		
I am not as healthy as I wish and wish I was healthier	3	42.9%

I am healthy enough for my age	1	14.3%
I am very healthy	3	42.9%
Mom report of teens health		
My teen is not as healthy as I wish and wish she was healthier	1	14.3%
My teen is healthy enough for her age	3	42.9%
She is very healthy	3	42.9%

Mother/Daughter Comfort-Talking

Results of the comfort-talking scale showed that moms were more comfortable talking about all of the issues with the daughter, yet the daughters were not as comfortable talking with the moms overall (Table 3). Areas where daughters felt more comfortable talking in the pretest as measured by a mean score of 3 or higher included doing well in school, eating healthy, getting along with the family, getting enough exercise, going to college, and violence in school or the community. Particular disparity (mother comfortable/daughters not comfortable) existed in the areas of talking about feeling pressure to have sex, having a boyfriend or girlfriend,

feeling pressure to smoke, drink, or use drugs, and fitting in. The teen's comfort in talking about these particular issues increased after the photovoice process.

A comparison of the total score of the teen's comfort-talking scale before and after program participation showed an increase (mean pre- total score = 49.2; SD 13.6; mean post- total score = 57.6; SD 7.2), although this increase was not statistically significant (SD 8.4) [$t = -1.594$ ($df = 4$), $p = .186$]. The mothers' overall score decreased slightly in the post scores, but their mean scores were higher on the pretest ($M=70.16$ out of possible score of 72) to start, which created very little variability.

Table 3 Comparison of daughter and mother pre- and post- Comfort Talking Scale scores

Comfort talking about:	Daughter (n=7)		Change	P value	Mother (n=6)		Change	P value
	Pre	Post			Pre	Post		
Q1. Doing well in school	3.57	3.71	.143	.604	4.00	4.00	.00	*
Q2. Getting along with friends	2.86	3.43	.571	.413	3.83	4.00	.17	.363
Q3. How you look	2.86	3.29	.429	.289	3.83	3.83	.00	*
Q4. Feeling pressured to have sex	1.86	2.29	.429	.200	3.67	3.5	-.17	.363
Q5. Being fat or overweight	2.71	3.00	.286	.569	3.83	3.5	-.33	.175
Q6. Eating a healthy diet	3.43	3.57	.143	.604	4.0	3.83	-.17	.363
Q7. War or terrorism	2.57	3.14	.571	.103	3.5	4.0	.50	.203
Q8. Getting along with family	3.43	3.14	-.286	.569	3.83	4.0	.17	.363
Q9. Getting enough exercise	3.14	3.43	.286	.569	4.0	3.5	-.50	.076
Q10. Going to college	3.71	3.71	.00	*	4.0	4.0	.00	*
Q11. Having a boy or girlfriend	2.14	2.57	.429	.510	3.83	3.83	.00	*
Q12. Pressure: drink/smoke/drugs	1.83	2.17	.333	.363	4.0	4.0	.00	*
Q13. Fitting in	2.14	2.71	.571	.356	3.83	4.0	.167	.363
Q14. Being thin	2.83	3.17	.333	.363	4.0	3.67	-.33	.175
Q15. Being underweight	2.57	3.00	.429	.356	4.0	3.67	-.33	.363
Q16. Violence in school	2.86	3.57	.714	.140	4.0	4.0	.00	*
Q17. Violence in community	3.00	2.43	.429	.200	4.0	4.0	.00	*
Q18. Spending time with family	3.43	3.14	.286	.569	4.0	4.0	.00	*
Total Comfort talking scale	49.2	57.6	8.4	.186	70.2	69.3	-.833	.434

Note: Individual item scale is 1-4 with higher number indicating more comfort;

* = p value cannot be computed because the standard error of the difference is 0.

Qualitative Themes Generated from Photographs

Participants generated 26 photos from the photovoice program. The photos were titled and organized into themes based on the coding of the transcripts. The titles of the photos, theme, and description of the theme are included in Table 4.

Having a healthy and safe environment

The first theme that emerged was the lack of green spaces within the community and the fact that safety within the community was an issue. The parks

were run down and contained broken glass, cracked sidewalks and limited resources for girls, particularly in the middle and high school years. One participant stated, "How can a girl be healthy in a dirty park? There is debris, garbage, sewer smells, standing water, graffiti, and no grass. That is just gross!" Another participant stated, "This is where my children and my family are supposed to play? This is where my family is supposed to have a picnic? There is broken glass, trash, broken benches, graffiti and no play equipment...not my idea of a fun family outing." One mother photographed a park, which created a lot of discussion. One teen described

this place as a visual reminder that the city has forgotten about them:

We still have cement in our parks and under the swing sets. My friends have found heroin needles in that park. The city should pay more attention and keep it up. People don't take any pride to keep it up. It makes me not want to be there. It could be a resource if upgraded, but now it is wasted space.

Suggestions of action steps included creation of more green spaces and safe spaces for girls. Additionally, the sidewalks need to be repaired and maintained so that they are walkable.

Needing things to do

Similar to the first theme, participants talked about the lack of things for girls to do and be involved in. One mother took a picture of the locked gate at the community center entitled *Lost Opportunities*. She explained it as follows:

The community center closed a few years ago. It was located right in the center of the city. It was a place that teens gathered. The center provided girl scouts, 4-H, teen support groups and lunch during the summer time. Nothing has replaced it; the opportunities were lost when the center was closed.

Managing the emotional and mental needs

Discussion related to the emotional and mental health needs for girls was sparked by a teen's image *Loaded Life*, which was the picture of a loaded baked potato. Mothers discussed the fact that girls' lives are very complex, and it is important for the parent/mother to help them not to get overloaded. Mothers' jobs are to teach them to set goals and manage tasks and time, as well as manage stress for their health. The teen described her interpretation of the photo's meaning like this: "The potato is the base and the other ingredients are the extra things you take on and the pieces in your life that you need to manage and balance. Sometimes overload can cause stress and spills." The image sparked discussion between the mothers and daughters about resources to help manage the load. The girls' concurred that they had not learned how to manage their time yet; whereas the mothers were reaching out to suggest that the girls' ask for help specifically around setting limits and saying no.

Dreams and opportunities

This theme drew a lot of discussion with a number of different photographs. The overarching meaning was that girls, particularly in lower-income areas, need to be shown opportunities that will help to lead them to more successful lives. They also need mentors to help guide them and show them how to reach their dreams. Creating positive pathways for girls is essential for the future health of the community. One teen took a photo of a tall building at an upward angle. She titled the photo *Windows of Opportunity*. She described what the image represented to her as this:

This picture shows that the sky is the limit. When you have power over your life and things that happen to you, you have opportunity. You need a strong, stable foundation from your family. If given an opportunity and encouragement from family, girls can have more and be more.

One mother stated that "parents, mentors, and other important adults in girls' lives need to be involved and need to lift girls up, empower them to dream and take that path they choose." Another woman took a picture of a cloud and titled it *Rebel*. She described that the blue sky and clouds reminded her of living in California. "The women I met were not overly concerned about fitting in, but more about who they are. The cloud does not follow the usual form and does its own thing. I believe girls should do the same, follow their own path and not conform and give in to society's expectations."

Barriers and pathways to healthy behaviors

Making healthy choices was another theme for which both mother and daughters captured images. The discussion centered around healthy behaviors such as exercise, eating right, and respecting your body. These healthy behaviors help girls' flourish rather than hold them back. One mother took a photo of a portrait of a young girl that she found inspiring. She titled it *Innocence*. This image sparked a lot of discussion around teen pregnancy and setting up communication strategies early in a girl's life. The mother shared her thoughts:

This girl has so much life to live, she innocent and seems like she is very secure and comes from a good family. I see growth, a future and innocence in her and a sense of hope. The rabbit also makes me think of teen pregnancy. Girls think it's cool and easy; society has made it easier for them by making it acceptable. Parents need to set more limits (like when they

can date), but parents now are too busy. Parents need more communication and goal setting strategies to talk to their girls about. The problem starts way before the pregnancy.

The daughter also chimed in and stated “girls really feel safer with boundaries in place and learning when we are on our own.”

Another picture focused on a pack of cigarettes taken by a teen. She said “I took a picture of cigarettes because they are really unhealthy. They have a lot of chemicals and make a girl’s life expectancy shorter.” The dyads also discussed things that helped with raising a healthy girl and focused on being a role model in all that they do. Young girls need to see their mothers or mentors as confident and energetic and practicing good self-care themselves. One mother took a picture of a woman on a jogging path. She described the meaning

as “I came across this woman in the park and she seemed so confident and energetic and easy going. If she is a mother, she is a good role model to her daughter. To our community, she is a good role model to the young girls in our neighborhood.”

Characteristics of a healthy girl

The final theme focused on what a healthy girl looked like and what personal characteristics she possessed. Mothers said that they felt it was important for girls to have fun and have time to be girls and have laughter in their lives. Building self-confidence, resilience, and strength in girls helps them achieve health and happiness. This in turn strengthens the community. One teen took a photo of her band trophy and titled it *Victorious*. The meaning to her was that “being strong and confident makes a girl healthy”.

Table 4 Themes, meaning, and photograph titles generated by participants

Themes	Meaning	Title
Having a Healthy and Safe Environment	Trash, broken glass, dilapidated parks don’t contribute to a safe or healthy environment for girls. Girls need to feel safe in their community and need a healthy environment such as clean parks and good air quality to grow into healthy adults.	Paved Paradise Healthy Children Broken Dreams Hit & Miss
Needing things to do	Teen girls in Covington need things to do. Facilities have closed and there are few opportunities for teen girl programming.	What is there for girls in Covington? Lost opportunities
Managing Emotional/Mental health in the complexity of life	Young people’s lives are very complex. Not Letting girls get overloaded in life and teaching them to balance tasks/goals, manage time, and how to manage their stress within the complexity is important for their overall health.	Music is Life Loaded Life Never Enough Time Collisions
Dreams & Opportunities	Girls need to be shown Opportunities that will lead them to successful lives as well as the pathway for how to achieve them. Creating positive pathways and guiding them through is essential for the health of girls and the community.	Exercise Your Mind Windows of Opportunit Peace & Serenity Rebel Life’s Many Branches
Barriers & Pathways to Healthy Behaviors	Making healthy choices (such as getting physical activity, eating healthy, and respecting your body by avoiding destructive behaviors like smoking, drugs and eating disorders) help girls flourish into healthy adults.	Path to Good Health Smoke & Mirrors Young Woman’s Kryptonite Kombos Anorexia Heart Attack on a Plate
Characteristics of a Healthy Girl	Girls need to have time to have fun and have laughter in their life. Building self-confidence and strength in girls helps them achieve health and happiness and strengthens the community.	Fun & Games Victorious

Program Evaluation

Following the program, participants were asked to share feedback related to two questions: 1) What were the best things about this program? and 2) What

things would you change about this program? Responses are summarized in Table 5.

Participants reported that one of the best aspects of the program was that it provided an opportunity for mothers and daughters to spend time

together and to discuss problems and issues relevant to their lives and their community. One mother shared that the program started a communication process that continued at home. One suggestion for change included using even smaller discussion groups within the larger

group, which might facilitate the communication of girls who were younger, more shy or less confident about speaking up in group settings.

Table 5 Summary of participant program evaluation feedback

Question 1. What were the best things about this program?

"I thought it was fun & enjoyable to be able to go somewhere w/ my mom & talk about healthy girls."

"The personable personnel :) honesty from other teens"

"Talking about each others pictures and talking about real problem that are in our community."

"informed others of the health issues, brought women in our community to discuss health"

"Looking at pictures & having discussions about them."

"Being with my daughter and meeting other parents."

":) food and getting to use camera's. :)"

"Everything & Everyone!! Really. In today - recession where everyone cutting back on programs something like this is available - for the women of Covington. How lucky were we??? One-on-one time with my daughter - the conversation went on even at home!!"

"Positive outlooks from staff sharing opinions & ideas"

"Discussions about how photography or images can be used to express an idea."

Question 2. What are things that you would change about this program?

"Do more stuff to really talk about how to fix these problems... More action."

"This was a fun program I would make it have more weeks."

"how long it is." "make it longer"

"I would like to have spent more time in smaller groups discussing the issues that came up. I believe my daughter would have been more comfortable opening up."

"Being able to share more than one or two of our photo's."

Discussion

Findings from this pilot program indicate several ways in which the photovoice process may

promote communication among mothers and daughters about issues of girls' health in a low-income community.

Increased overall comfort talking scores among teens as well as program evaluation data provide support for employing photovoice processes as a way to

promote increased comfort among mothers and daughters in talking about difficult topics. Photovoice provided a structured time for mothers and daughters to share in conversation, which continued outside the context of the program. Moreover, program participation promoted health communication between mothers and daughters as well as among other participants. Group members worked together to discuss photos and generate themes for what aspects of girls' health the photo represented. The process of photovoice and the photographs generated created a comfortable environment and nonthreatening approach for mothers, daughters, and other group members to discuss the issues of girls' health. Use of photovoice to promote a comfortable and nonthreatening environment has been reported in previous literature (Miller & Vaughn, 2015), although not in the context of improving mother-daughter communication around particular health issues such as sexuality, boyfriends/girlfriends, using alcohol and drugs and fitting in. Providing opportunities for even smaller discussion groups within a photovoice program may offer an increased comfort talking for girls who are younger, shy, or less confident in group settings.

Themes of the photographs and the resulting conversations revolved around the importance of healthy safe physical spaces, girls needing things to do, teaching them to manage stress and time, positive pathways to healthy behaviors and opportunities for success. A study conducted by Reisch, Anderson, and Kreuger (2006) reported that increasing parent-child communication can mediate positive health behaviors such as openness and conflict resolution and enhance the child's self-esteem and communication related to risky health behaviors. Within our study, increase comfort with communicating about health issues and girls' needs provided a pathway for building capacity, self-confidence and success in girls. Photovoice facilitated this process by providing a launching point for discussion of difficult health topics between parent and child.

The photos appeared to contribute to facilitating the process of change through the information exchange among mothers and daughters. Through the photos, participants identified and discussed the issues, which then segued into discussion about potential solutions. This process aligns with the convergence model of communication in which the enhanced interconnection/relationship between and among the mothers and daughters was a result of the photo discussion and allowed for the creation of ideas for changes needed in the community.

Despite the pilot nature of this program, findings indicate that use of photovoice methods may foster an environment where open dialogue and

collaboration between and among mother-daughter dyads occurred. Because the group discussion was facilitated in a round robin format, all group members participated in the conversations about each image even if they did not take the photo. This provided a safe forum for mothers and daughters to hold guided discussions about sensitive topics that may not otherwise occur spontaneously. Program evaluation data indicated that conversations between mothers and daughters continued at home due to participation in the program.

To our best knowledge, this is one of the first programs to examine how the photovoice process could serve as a specific strategy to enhance mother-daughter communication. Therefore, it is difficult to corroborate the findings with previous studies. That being said, our findings do indicate that photography as a medium and the photovoice process may be a promising idea for an intervention strategy to promote interpersonal communication. Trends indicate teens use photos to express themselves via social media. Recent surveys indicate approximately 75% of U.S. teens have or have access to a smart phone (Lenhart, 2015) and that girls in particular use the camera feature of phones more often than boys (CDC, n.d.). Thus, leveraging photography, a medium familiar and acceptable to teens, could provide a generationally-relevant way to introduce the photovoice process as a tool for health communication.

Practitioners or organizations could consider using the photovoice process as an intervention to strengthen communication among dyads or groups. This type of intervention could also be well-suited to be administered online and/or through a self-administered tool kit, which would increase the reach of the the photovoice process for health communication.

Strengths, Limitations, and Future Research

The pilot program had several strengths and limitations. First, the program had a small number of participants, which was both a strength and limitation. Given the qualitative nature of the program, there were an adequate number of participants to generate qualitative results. However, the small number of participants limited our ability needed to detect statistically significant changes in pre- and post- comfort-talking scores. Another program strength was that the participants' demographics reflected the overall selected community. Therefore, the findings presented may be transferable to similar types of communities but cannot be generalized to all mother-daughters. Finally, the focus of the program was specific to girls' health. The findings help to further understand how the photovoice process may promote mother-daughter discussion of issues relevant to girls' health. However, they may not reflect how the photovoice process may influence

communication about non-health issues among mother-daughters or among other parent-child dyad combinations (e.g., father-son, mother-son, father-daughter).

Future studies should be conducted to corroborate these findings. Replication studies should be conducted in other types of communities (e.g., suburban, rural) to determine whether similar findings are generated. In addition, more robust study designs (i.e., quasi-experimental) would be helpful to compare a photovoice-based intervention to promote parent-child communication with a skill-based only intervention.

Acknowledgements

Thank you to our program partners: Covington Center for Great Neighborhoods, Partners in Prevention, Northern Kentucky Health Department, Campbell County YMCA, and Judy Harmony. Their support for the program as well as efforts in publicizing the program, recruiting participants, and identifying meeting space provided meaningful opportunities for participants to become healthier and share their voices with the community.

Summary

Findings from this pilot study provide support for how the photovoice process may increase teens' comfort in talking with their mothers about particularly sensitive health-related topics. This is important as an additional tool for parents, practitioners and other researchers to utilize as a strategy to enhance communication with teens. Future interventions designed to enhance parent-child communication should consider using incorporating the photovoice process.

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