

Preliminary Effectiveness of a Community-based Health Program for Pregnant and Parenting Youth Experiencing Homelessness

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ABSTRACT:

Background & Objectives: Pregnant and parenting youth experiencing homelessness (PPYEH) and their children face significant health challenges, yet few interventions exist to address their health needs. The purpose of this community-based participatory research was to evaluate the preliminary effectiveness of a site-based health empowerment program to improve health, healthcare access, and reproductive health among PPYEH living in emergency shelter or transitional living programs.

Methods: This mixed method study included intake, exit, and follow-up surveys with PPYEH, as well as a focus group and semi-structured interviews with PPYEH and shelter staff. We conducted descriptive analyses of quantitative data to assess program satisfaction, mental health, contraceptive use and access, and thematic analysis of qualitative data.

Results: Our evaluation demonstrated high program satisfaction, improved mental health, and enhanced access to reproductive resources and acceptability of contraceptive options. PPYEH and staff reported EMPOWER connected youth with primary, dental, vision, sexual, and mental healthcare, which promoted youth resilience and agency in navigating the healthcare system. PPYEH felt their health improved through increased knowledge of topics including nutrition, allergies, healthy relationships, and STIs. Every interviewed participant recommended expanding EMPOWER to other shelters.

Conclusion: Our findings suggest that site-based health empowerment programs embedded within shelters and housing programs may represent an acceptable and promising strategy to increase healthcare access, improve child and adolescent health, and support reproductive goals. The program underscores the importance of centering the voices of those with lived experiences of homelessness in the co-creation of programs that address their unique health needs.

KEYWORDS: Homeless Youth, Pregnancy in Adolescence, Health disparities, Health Disparate Minority and Vulnerable Populations, Shelter-based Healthcare, Empowerment, Health promotion, Community-Based Participatory Research, Reproductive Health Services

Introduction

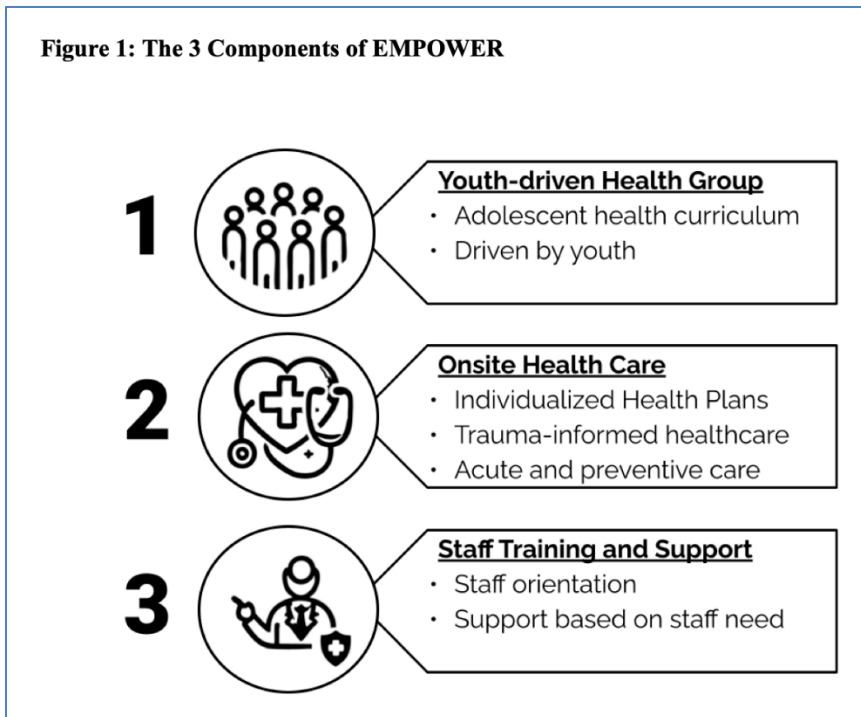
An estimated over 3 million unaccompanied youth ages 13-25 experience some form of homelessness annually in the United States.¹⁻² In Minnesota, unaccompanied youth ages 24 and younger account for 13% of the more than 10,000 people experiencing homelessness nightly.³ Among youth experiencing homelessness (YEH), one-third are pregnant or parenting.⁴⁻⁵ As young people who are navigating their own development, and also leading families and supporting their own children, pregnant and parenting youth experiencing homelessness (PPYEH) face unique challenges with intergenerational implications.⁶ Yet, there are few housing or public health programs to meet their unique needs.

YEH have unique health needs and face many barriers to accessing healthcare and other vital resources to bolster resilience in the face of significant trauma and adversity.^{2, 7-8} More than three decades of prior research highlights the higher rates of physical and mental health concerns that YEH face.⁶ The prior body of research documenting the specific needs of PPYEH is more limited; it demonstrates that the experience of pregnancy and parenthood while homeless is associated with unique needs for both adolescent parents and their children, but may also represent an opportunity that positively influences health.^{6, 9-10} Prior literature documents increased rates of mental health concerns and substance use, as well as unmet sexual health needs among PPYEH.^{6, 9} It also reveals that there are limited resources to bolster health among PPYEH and to support them in navigating across complex health systems.⁶⁻⁸ Thus, there is a clear need for embedded health programming to address the full spectrum of preventative, short-term, and long-term health needs of PPYEH and their children.¹¹⁻¹³

Given the unique needs of PPYEH and the opportunities to reinforce resilience in the face of adversity, there is demand for interventions designed to improve overall health and well-being

of PPYEH. Aligning with a youth participatory action research framework,¹⁴ the design and implementation of such interventions should first and foremost involve youth input and employ a strengths-based, resilience-building, and trauma-informed approach.^{10, 13, 15} Likewise, these programs should be tested across a range of community-based settings that support YEH, including housing programs and transitional living programs (TLPs) that focus on transition, as well as emergency shelters (<90 days) that provide shorter stays and focus on family reunification.

Empowering Parents for Wellness in Shelter (EMPOWER) was developed in partnership with The Bridge for Youth, a local youth-serving agency (YSA) that provides emergency shelter and TLPs for PPYEH. The program was initially co-created in 2018 with input from PPYEH and the YSA staff with whom they work most closely.¹⁶ EMPOWER is made up of three components: a youth-driven, biweekly health empowerment group, YSA staff training, and on-site shelter-based healthcare services (**Figure 1**). The goals of EMPOWER, which were formed with youth and community input, are to: 1) strengthen connections with health services for PPYEH and their children, 2) improve the health of PPYEH and their children, and 3) support adolescents' reproductive life goals. The partnership and resulting EMPOWER program has continued for more than six years, and community partners are embedded as vital members of the research team. Building on this strong partnership, the current mixed-methods, community-based participatory research (CBPR) pilot study scaled and adapted the program to a novel setting (an emergency shelter for PPYEH) and then evaluated the program's preliminary effectiveness at meeting program goals and its feasibility.



Methods

Study Design

We conducted a mixed-methods, CBPR pilot study to evaluate the preliminary effectiveness of the EMPOWER program and describe its feasibility of implementation when scaled to an emergency shelter. Aligning with the principles of CBPR, the Bridge for Youth staff and leadership were engaged in every phase of the research, including conceptualization of the study, shared grant funds, intervention implementation, data collection tool development, analysis and dissemination. Leveraging a long-standing collaboration and partnership agreement to ensure mutual trust and shared power, we co-developed intervention goals, study design and dissemination plans. The mixed-methods evaluation included surveys with PPYEH, as well as interviews and focus groups with PPYEH and program staff, approximately 6 months after program implementation. Mixed methods analyses used the program's goals, co-developed with

community partners, to assess preliminary effectiveness, and Bowen's framework for feasibility.¹⁷ This research study was approved by the University of Minnesota Institutional Review Board. Informed consent was obtained from all youth and YSA staff, and all youth and staff received financial compensation for participation in the study.

Setting and Sample

EMPOWER was piloted in two programs at the YSA that both serve PPYEH: Marlene's Place and Gloria's Place. EMPOWER was initially developed and piloted at Marlene's Place, a TLP intended to transition participants into independent living (maximum 18-month stay). In this research, EMPOWER was also scaled to Gloria's Place, a short-term emergency shelter (maximum 3-month stay) focused on stabilization and family reunification when possible. Youth were sometimes able to transition from Gloria's Place to Marlene's Place, if long-term housing was needed.

Our quantitative analysis included PPYEH (n=9), ages ranging from 16 to 20 years-old, (median age 17.5): 3 stayed in Marlene's Place, 3 in Gloria's Place, and 3 in both programs. All but one youth in the sample identified as Black, Indigenous, and People of Color (BIPOC). As is common for this highly mobile population, there were challenges keeping in contact with youth throughout the study, resulting in diminishing response rates over time. Additionally, some participants did not provide responses to every question. For the qualitative analysis, we conducted key informant interviews or focus groups (based on availability and preference) with PPYEH (n=10) and YSA staff (n=6).

Intervention

EMPOWER is a 3-pronged site-based health empowerment program (**Figure 1**). After a comprehensive community needs assessment, it was initially developed and piloted from 2018 to 2020 through a participatory process in collaboration with a YSA (The Bridge for Youth) in a large Midwestern city, described elsewhere.¹⁶ The first component, a youth-driven health empowerment group, was conducted biweekly. The group was co-facilitated by a community health worker at the YSA and an on-site board-certified adolescent medicine physician. In its current form, the group was conducted jointly with youth from both Marlene's and Gloria's Place. It covers topics ranging from sexual health & relationships, mental health, child health and development, and additional physical health topics (e.g., sleep, nutrition, movement), driven in large part by youth interest. The topics incorporated an intergenerational lens, considering both parent and child health. Where available, the curriculum draws on publicly available evidence-informed modules. If none existed, the facilitators worked to develop the curricular modules, drawing on the frameworks of positive youth development, harm reduction and trauma-informed care. The second component of the program, YSA staff training, was conducted on topic areas based on youth and staff input, including mental health and trauma, cardiopulmonary resuscitation training, and sexual health. The third component of the program, site-based health services, was delivered on-site in partnership with a large county medical center. The healthcare included comprehensive, embedded medical care for youth and their children by a board-certified pediatrician and adolescent medicine physician, assistance navigating complex health systems provided by a community health worker, and access to mental health care provided by a mental health professional.

Surveys

We conducted program intake, exit, and 1-month follow-up surveys among PPYEH (n=9). The surveys included questions on demographics, preliminary effectiveness (mental health [PHQ-2], sexual and reproductive health [access to care, contraceptive use]), and feasibility (satisfaction, usefulness, and recommendation to expand to other shelters). Surveys were distributed via Qualtrics software and completed electronically.

Interviews and Focus Groups

Youth interviews and focus groups assessed preliminary effectiveness and feasibility. Staff key informant interviews focused on acceptability of each aspect of the EMPOWER program and feasibility of scaling it to the YSA's emergency shelter site. All were conducted via Zoom by non-community members of the research team to avoid bias. To guide our data collection, focus group and interview questions were structured based on the program's stated goals and Bowen's framework of feasibility, and were informed by community partners on our research team.¹⁷

Analysis

We conducted descriptive analyses of the quantitative data. The survey data were analyzed using descriptive statistics via Qualtrics' Stats iQ.

A team of four independent coders (not community members) conducted a thematic analysis of qualitative data. The coding team inductively developed a codebook using an iterative process involving all coders independently documenting key themes that were emerging in the interview and focus group transcripts, and then convening to build consensus and generate a codebook. After the codebook was finalized (**Table 1**), coders divided into pairs. Both coders of

each pair independently coded their assigned transcripts and met to reconcile their codes. The qualitative analysis sought to describe the preliminary effectiveness and feasibility of EMPOWER, providing depth and context to the quantitative data. Preliminary effectiveness of the EMPOWER program included codes to assess each of the program goals: strengthening parent/child connections with healthcare, improvement of adolescent parent and/or child health, and supporting youth's reproductive life goals. To assess feasibility, we coded for acceptability, adaptation, demand, expansion, implementation, integration, and practicality based on Bowen's framework.¹⁷ Community partners on the research team were consulted in codebook development and throughout thematic analysis to triangulate findings and contextualize them in the context of programming.

Results

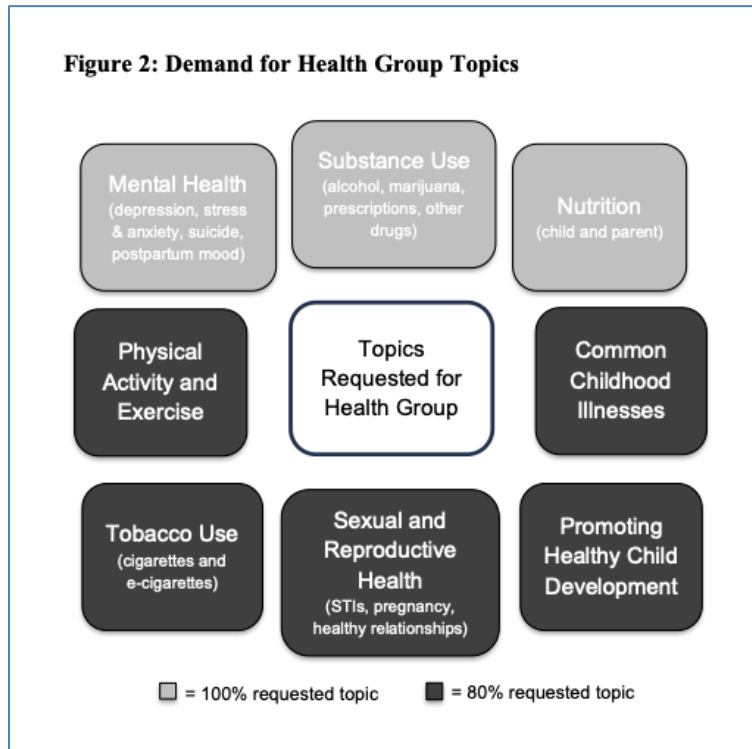
Quantitative Findings

Our survey results (**Table 2**) assessed the feasibility of the program (e.g., acceptability, demand), and preliminary effectiveness (i.e., sexual health, mental health outcomes).

Program Feasibility. To build on our prior work in this space, participants were asked to report their acceptability of EMPOWER upon program exit and one month after exit. Only a limited number of youth who completed the surveys responded to the questions in this section. However, all of the youth who responded expressed satisfaction with the program, intention to use what they learned, and recommended the program to other shelters.

To assess demand, participants were also asked about topics to be included. Upon exit, all youth reported wanting to talk about **1**) substance use, **2**) mental health, and **3**) nutrition for youth and their children. Four youth (80%) requested **4**) sexual/reproductive health, **5**) tobacco

use, **6)** physical activity **7)** healthy child development, and **8)** common childhood illnesses (Figure 2).



Preliminary Effectiveness. With respect to sexual healthcare, EMPOWER improved access to reproductive care (e.g., STI testing, obstetrics) and increased youth knowledge of different contraceptive methods (inadequately powered to assess significance).

With respect to mental health outcomes, participants were scored on their responses to the PHQ-2 questions. Upon intake, 4 individuals scored positive on the PHQ-2. Upon exit, only 1 participant scored positive, and for the 1-month follow-up survey, no participants scored positive. Participants were asked to describe their general mental health. For instance, the proportion of youth describing their mental health as either “very good” or “excellent” changed from 44% at intake to 72% at follow-up.

Qualitative Findings

Our semi-structured interviews and focus group with youth and staff revealed several themes related to the preliminary effectiveness and feasibility, outlined in **Table 1**. Here, we summarize key findings related to preliminary effectiveness and feasibility, as they relate to each of the 3 components of EMPOWER: Health Empowerment Group, Health Services and Staff Training. Our quantitative analysis of program intake, exit, and 1-month follow-up surveys guided our qualitative analysis.

Youth-Driven Health Empowerment Group

Feasibility. Based on interviews with staff, youths' interest in participating in health group is mixed. One staff member stated, *"I think it is 50/50. I think some of them enjoy it, and they generally would enjoy talking about it. ... And other girls are just like I am here because I am required to be. They are not taking advantage of it. But I think in the long run, they will appreciate it."* However, some staff noted an improvement in youth interest towards health group. One staff member said, *"I started to see the change in the youth during that time, where it was like 'oh, I'm looking forward to group', ... I think it's very important, because sometimes even though youth are like 'oh, I don't want to go to group'..., I think they always still take something away that they didn't walk in with or get curious more about it."*

Preliminary Effectiveness. The youth's perspective included that health group feels like a safe space – where they can speak up if there is something they are curious about or need help with, citing that they benefited from opportunities to connect with healthcare directly, access resources (e.g., transportation to healthcare, access to condoms and birth control information) and build trust. They also stated that it is a space where they feel supported to have their health

needs met and questions answered. The youth also shared that they enjoy the variety and flexibility of topics covered in health group. They like that the curriculum is not too structured. One youth stated, *“The thing I like about health group the most is we never stay on topic, which is kind of okay because it’s like everything ties into health. ... We’re always learning something new.”*

On-site Health Services

Feasibility. The youth and staff interviewed expressed that having health services on-site strengthened the youths’ connections with healthcare. The staff, who work closely with the youth at the YSA, noted that having health services on-site especially benefited the youth in building a trusting relationship with a health professional. The staff and youth also described the multitude of health services youth were connected with through the program – health insurance, STI testing, transportation to appointments, immunizations, dental, vision, mental health, and primary care. Additionally, they shared that these connections felt simple. One youth said, *“It was the timing and also the resources available....It was very professional. ..., quick and easy. ... It wasn’t like I have to jump through hoops or I have to call 12 people. ... It was just really simple and easy to get done.”*

Preliminary Effectiveness. In addition to strengthening connections to healthcare, the participants felt these services improved their health and their children’s health. For instance, youth and staff identified that the youth applied the education they received during health group about nutrition when deciding what to feed their children at different ages and how to manage food allergies. They also reported these services supported their reproductive goals, giving them increased access to pregnancy tests, condoms, and contraceptive methods. They noted the

importance of receiving information about different contraceptive options without pressure to use any, aligning with a reproductive justice framework that centers autonomy and access.¹⁸

Some youth stated they had not planned to use birth control but changed their mind after learning about the different options available to them.

Finally, several staff and youth expressed that on-site health services promoted a sense of agency in the youth.

- Youth: *“Overall, I think it just leads us in the right direction. ... Because like I said before, [there’s] not always going to be someone here to do it for us...they show us how to do it, so we know if the future when we are alone how to go about doing this.”*
- Staff: *“Giving them a choice... So once they say they have a primary, if they don’t want to see the on-site physician, then I can reach out to their primary, encourage them and help them make their appointment, but the idea is to get them to do that too, so I can sit with them while they do that to empower that movement for them, so next time they know how easy it could be to make the appointment.... it’s like leading by example.”*

Ultimately the participants expressed that the program met youth where they were.

Staff Trainings

Preliminary effectiveness. Regarding staff readiness, the staff expressed confidence discussing certain elements of health and identified several opportunities to learn more.

However, some staff did express feeling less than 100% prepared to address health concerns and requested more focused content that would be applicable to their daily work at the YSA. Most of the staff expressed desire to have trainings on a quarterly basis, as well as an interest in monthly check-ins to talk about specific pressing health concerns for youth.

Feasibility. Specifically, with respect to feasibility, the training offered were acceptable and useful, but they requested additional training on topics including the experience of being pregnant, preparing for labor, creating a birth plan, and supporting youth during the postpartum period. They also expressed interest in more training about hygiene, how to keep living spaces clean, and nutrition. Finally, they explicitly asked for training about how to provide trauma-informed care, specifically related to financial exploitation by youth's partners.

Discussion

This CBPR suggests that a multicomponent, site-based intervention may be an effective and feasible strategy to address the significant health challenges that PPYEH face, and to enhance access to healthcare for PPYEH. It underscores the importance of working with community partners and centering the voices of youth with lived experiences. One-third of YEH are pregnant or parenting. Yet, research on best strategies to meet the unique needs of this population is limited.⁴ Thus, EMPOWER represents a novel and promising strategy to strengthen connections with health services for PPYEH and their children, improve child and adolescent health, and support adolescents' reproductive life goals, filling a critical gap in the literature.

YEH experience pregnancy at much higher rates than housed youth despite declining pregnancy rates among U.S. adolescents.¹⁹⁻²⁰ One qualitative study among YEH in the U.S. identified that, while pregnancy and parenting are stressful during homelessness, with adequate support, YEH can help overcome these stresses and that pregnancy and parenthood can have a positive influence.¹⁰ Other studies have identified individual protective factors for PPYEH, including sexual health knowledge, self-efficacy, and engagement in their parenting role, as well as community factors (e.g., healthcare access, community supports).²¹⁻²³ The data illuminate the

need for interventions that bolster resilience, promote positive mental health by addressing immediate health needs and provide services to support long-term health.^{5,6} EMPOWER shows promise in bolstering resilience and enhancing access to resources through educational groups, on-site health services, and training for staff working directly with PPYEH and their children.

With regards to strengthening connections with health services, both youth and staff expressed improved connection to healthcare and staff supports both on- and off-site. This finding is significant because previous research suggests having stable and positive adult support and guidance can help youth remain engaged in their own health.¹³ One health empowerment program found that having program staff who were already known by the youth was crucial to youth feeling a sense of safety.²⁴ Building on this prior work, our study's on-site health provider and co-facilitator of group was already known by youth because she had previously been connected to and present at the YSA, laying the foundation for a supportive relationship.

With regards to improving the health of the youth and their children, youth reported such improvement after participation in EMPOWER through increased knowledge and self-efficacy as it relates to several areas of health. This finding builds upon previous research as the understanding of personal and child health as well as self-efficacy can serve as protective factors for the health of PPYEH.²¹ This element of EMPOWER is also novel in the sense that the program focuses on the parent and child dyad rather than just one or the other. Despite previous research emphasizing the importance of addressing the needs of both parents and children,²² many studies prioritize one over the other.^{10, 15, 19, 25}

With regards to supporting the youth's reproductive goals, many youth expressed increased access to sexual health resources and broadened knowledge of the contraceptive options available. Accessible sexual and reproductive health services has also been identified as

a protective factor for PPYEH,²¹ and previous research emphasizes the importance of YSAs including reproductive healthcare in their coordination of health services for YEH.^{13, 19-20} One study in Hawaii found a critical element of assessing and selecting a contraceptive method for female YEH was feeling connected to and heard by staff while also trusting them enough to share their concerns about birth control.²⁶ Similarly, the EMPOWER program centered a reproductive justice framework¹⁸ that first supported youth in identifying their own reproductive health goals, then provided information about pregnancy-related care and contraceptive methods (if desired) in a supportive and non-coercive way, and finally enhanced access to sexual and reproductive healthcare. Previous research tailored towards pregnant and parenting youth focuses on pregnancy prevention with prevention being the main priority.^{15, 20, 25} However, prioritizing prevention assumes that all youth pregnancies are unintended. One study finds that a large proportion of pregnancies by YEH are intended and that many YEH hold pro-pregnancy attitudes.¹⁹ Many youth in our program desired a future pregnancy. Therefore, EMPOWER is novel in its goal to support PPYEH's reproductive life goals, centering their needs and affirming their agency and autonomy over their bodies, rather than predominantly encouraging pregnancy prevention.

EMPOWER is also novel in its breadth of health topics covered and the flexibility to adapt topics throughout the program, based on youth needs and interests. Previous studies tailored towards PPYEH or YEH in general often focus on one specific area of health (e.g., mental health, sexual health, HIV, pregnancy prevention, etc.).^{9, 12, 15, 24-25} More specifically, many of the youth interviewed in this study explicitly highlighted their favorability for the flexibility in the topics covered, sharing they appreciated that there was never pressure to stay on

one specific topic during health group when other more pressing interests and needs emerged within the group.

Ultimately, the results of this study revealed that the program was feasible and acceptable, demonstrated by the high levels of youth-reported satisfaction and likelihood to recommend the program in the exit and follow-up surveys as well as through qualitative data describing satisfaction with the program. Given the limited literature related to community-based programming for YEH, this study begins to fill a gap regarding the impact that health programming can have on the well-being of PPYEH. Furthermore, to our knowledge, this study was the first of its kind to be scaled to an emergency shelter (focused on shorter stays with family reunification) in addition to a TLP (focused on longer stays and transition to independence), suggesting that programs serving PPYEH across the continuum of care for housing could utilize elements of EMPOWER to implement and evaluate similar programs.

A major strength of this study is the mixed-methods design. The qualitative data provided vital, youth-centered context for understanding the quantitative findings. The qualitative results add additional depth on the perspectives of shelter staff and youth about how and why this programming is supportive of youth health. It also further reinforced the program's preliminary effectiveness in strengthening youth's trust in the healthcare system and bolstering their sense of agency and inherent resilience.

One limitation of this study is sample size that is unlikely to be representative of the broader PPYEH population. For qualitative data, our intention is not to be representative but to ascertain a deeper understanding of the preliminary effectiveness and feasibility of the programming in the current context. Additional studies are needed that examine specific needs and tailored interventions for PPYEH from rural and suburban areas, and from specific

subgroups of PPYEH that may have unique needs (e.g., LGBTQ+ youth). Nonetheless, our mixed-methods evaluation reveals promising results for future research in collaboration with PPYEH and YSAs.

Our study lays the foundation for future research on health programming for PPYEH across different practice settings, geographic regions, and populations to reflect the diversity of this unique and resilient population. Our study is among the first research studies to examine the perspectives of PPYEH and their health needs, and to test an intervention to enhance health among this population. Our findings underscore the benefits of utilizing a community- and youth-engaged framework to advance health within this population and dismantle long-standing inequities.

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Table 1: Feasibility & Preliminary Effectiveness of EMPOWER: Qualitative Codebook and Key Themes

Codes	Definition	Sample Quote
Themes Related to Preliminary Effectiveness		
Improve Adolescent and Child Health	Attitudes related to improved health as a result of components of EMPOWER	<p>“During group we’d get like resources. Like when my daughter turned a certain age and she started eating like regular foods, I was given like resources of what I could give her, what I can’t give her, you know, just overall making sure that I’m keeping my child safe and I’m doing things that would benefit her and also our relationship” (Youth)</p> <p>“Yes, I would say there are spotlights of improvement on mental health. I know it’s hard being in shelter or being in a transition living program. Some days are harder than others for youth. But I would definitely say continuing the conversation, being aware that mental health is a thing and being aware that it’s okay to be sad or depressed or it’s okay to have these moments and if it’s an extended period of time, like postpartum was a huge conversation I feel that was had” (Staff)</p>
Staff Readiness	Attitudes of staff on their readiness to deal with the health needs of youth as a result of prior staff training.	<p>“And we had a youth who was suffering from postpartum. How can we support this mom and have the peers on the floor notice because now we talked about postpartum so now we all see that she might be struggling with postpartum. How can we come together as a community to support you” (Staff)</p> <p>“I would say maybe like 65 percent [prepared]. So not a full 100 percent but maybe like 65 percent confident that I can point them in the correct directions or give them the proper resources. I think there’s always room for learning, because I think that we’re evolving in ways. Yeah, it’s just having actually access to those resources that’s why I say just 65 percent” (Staff)</p>
Strengthen Parent and Child Connections with Healthcare	Attitudes on how components of EMPOWER have helped connect parents and their children to healthcare onsite or offsite	<p>“Well, XXX, she, the health nurse, she be helping me or like we have a nurse here or a doctor here that we go to. They get us medical rides if we need access, like to our clinics and stuff like that” (Youth)</p> <p>“Well I’ll say this time for example, there was a youth that wasn’t comfortable with being seen during her last pregnancy based on her past experiences. And because of Empower or because of different opportunities or whatever, I believe that the youth, once she did come around this time, she was more comfortable with maybe being partially seen. And that’s a huge step from going from not being seen to like hey I want to be seen and here we can have these conversations, here are resources I can learn about this” (Staff)</p>
Supporting Youth’s Reproductive Life Goals	Attitudes on how EMPOWER supported youth access to contraception and provided resources about family	<p>“They provide condoms and they help you get on birth control if you want to be on birth control. They don’t pressure you to do anything you don’t want to do. But they are there if you do need help getting resources” (Youth)</p> <p>“Understanding your options because at first I wasn’t going to get any because I didn’t want to get the Depo shot again and I didn’t want to get</p>

	planning and future and current parenting	the arm one but knowing that there's like ones other than those, helped" (Youth)
Themes Related to Feasibility		
Acceptability	To what extent is the program judged as suitable, satisfying, or attractive to youth and staff?	<p>"I love the fact that we can be culturally specific and understanding with how to address different cultural health issues that we normally don't talk about but having a space where the youth could learn some cultural specific understandings as to what health related circumstances could be or conversations or again experiences" (Staff)</p> <p>"Some youth aren't really into it. But I feel like the youth who really pay attention enjoy it or enjoy what the conversation is" (Youth)</p>
Adaptation	To what extent does the program perform when changes are made for a new format	<p>"I didn't have expectations before but I do know that after you all did the surveys, you implemented. You actually stood on the word of what you were going to do. So implementing some of those, in search of bringing food, those types of things, getting more youth input. So I didn't have any expectations of group, but I just know from the feedback you all receive, you actually implemented those things" (Staff)</p> <p>"The changes, oh, that was pretty cool. I liked the no-phone rule. I mean, that's why nobody's really engaged. They are all on their phones" (Youth)</p>
Demand	To what extent is the program likely to be used (i.e., how much demand is likely to exist?)	<p>"The youth that I talked to that requested, need it, like it, appreciate it, and are glad that it's there. It's like a one stop shop. It's necessary and it's necessary for them because you never know their mental health and their trauma, their comfort" (Staff)</p> <p>"It was affirming and necessary that everybody was on the same accord that we learned that we trained together so that we can all have the supportive services that we need together as a team and that we learned together so that we can have an understanding and again, it's necessary for all of us to learn that. Not just one person, we're all serving the youth at The Bridge. We all need to know this. Everyone connected to any youth that walks in that building, we need to know what these trainings are. We need to have this experience" (Staff)</p>
Expansion	To what extent can the program be expanded to provide a new program or service?	<p>"Well, I absolutely think that this would be really beneficial to shelters and other shelters. We don't have a lot of people, maybe we do, and I'll just say from where I've been and where I've sat, we didn't have a lot of intentional spaces to really talk about health and sexual health and teen pregnancy and youth pregnancy. And so, in the shelter we're meeting our youth who maybe have had good or bad experiences sexually. And so to have something on site that can benefit this situation and this circumstance would be really good for them. To have their staff informed and not only are their staff informed but they have the resources too" (Staff)</p> <p>"Would I suggest this program? Yes, I actually would. Especially the ones where they all live together, I would definitely suggest it" (Youth)</p>

Implementation	To what extent can the program be successfully delivered to PPYEH in some defined, but not fully controlled, context?	<p>“It actually works out pretty nice. It’s not like it’s an everyday thing, they have a certain day put aside just for group. And it’s very consistent. You go to this group at the same time every week. And then Dr. X, she works at the same time, on the same days every week. So you know if she’s in, then I can go talk to her. Her group happens every other week. And then it’s another group that is scheduled every other week that doesn’t collide with hers. So we know that if it’s her week to do group and afterwards if she has a couple minutes, we can pull her aside and talk” (Youth)</p> <p>“I think the benefits of it were challenging the staff to really be intentional about health and health awareness. As it comes to the youth that they’re serving that are parenting and pregnant, again, the homelessness, I think that it awakened something huge and everyone is on the same accord where they’re being intentional about the youth and how they’re serving them and how they’re serving their health because we know the barriers that we already have in the healthcare system” (Staff)</p>
Integration	To what extent can a new intervention or program be integrated within an existing system?	<p>“I think it is pretty compatible. I think from what I hear, they come in and try their best. They seem to enjoy it. And then also come back with new information sometimes or just getting something off their chest that they can really relate to others. And that is their safe space to do it. So, I think it is pretty compatible for the girls and our mission” (Staff)</p> <p>“All of that is being put out there as their blueprint and it’s like they have to buy in and they need time. And there’s usually not enough time to get our youth who have dealt with mental health and trauma to buy in to being comfortable with finding healthcare opportunities or healthcare prevention plans or sexual health or mental health, you know what I mean? So it’s just time, that’s it” (Staff)</p>
Practicality	To what extent can the program be carried out with PPYEH using existing means, resources, and circumstances and without outside intervention?	<p>“It was the timing and also the resources that were available. And everyone was on the same page. It was very professional. It was, you know, quick and easy. The whole process, it wasn’t like I have to jump through hoops or I have to call 12 people. It wasn’t all that. It was just really simple and easy to get done” (Youth)</p> <p>“It works out fine because I know in advance that Thursdays are set for group and set to talk or to do health and go over health. So I know not to plan my week around that. And they’re very understanding if something pops up at the last minute and I won’t be able to make it. They’re very understanding about that” (Youth)</p>

Table 2: Feasibility and Preliminary Effectiveness of EMPOWER: Quantitative Findings

		Exit (n=5)	Follow up (n=5)
(% , # who agree or strongly agree)			
Feasibility			
Program satisfaction: “I am satisfied with the EMPOWER program.”		100%, n = 5*	100%, n = 5
Usefulness: “I will use what I learned in the EMPOWER program.”		100%, n = 5*	100%, n = 5
Recommendation for use in other programs: “I would suggest the use of this program at other shelters for pregnant and parenting youth.”		100%, n = 5	100%, n = 5
Preliminary Effectiveness			
Sexual and Reproductive Healthcare access: “Participating in EMPOWER had helped me to access sexual healthcare, like obstetric care, pregnancy prevention or STD testing”		80%, n = 4	80%, n = 4
Contraceptive use at last intercourse: “Which method(s) did you use to prevent pregnancy the last time you had sexual intercourse?” (Select all that apply)	Intake (if in program for 4 weeks or more, n=9)	Exit (n=8)	One-month Follow-up (n=7)
	%, # who selected each response		
- No method/not sure	40%, n = 2	50%, n = 4	38%, n = 3
- Condoms	33%, n = 3	NA, n = 0	NA, n = 0

- Short-acting hormonal (pill, patch, ring)	33%, n = 3	25%, n = 2	13%, n = 1
- Injectable contraception	22%, n = 2	38%, n = 3	13%, n = 1
- Long-acting reversible	33%, n = 3	38%, n = 3	25%, n = 2
Mental Health	Intake (if in program for 4 weeks or more, n=9)	Exit (n=8)	One-month Follow-up (n=7)
	%, # who screened positive for the PHQ-2^a (i.e. scores ≥ 3) Average PHQ-2^a Score		
PHQ-2^a “Over the last 2 weeks, how often have you been bothered by: Little interest or pleasure in doing things?” “Over the last 2 weeks, how often have you been bothered by: Feeling down, depressed, or hopeless?”	44%, n = 4 Average = 1.89	12.5%, n = 1 Average = 1.13	0%, n = 0 Average = 0.57
Overall: “In general, how would you describe your mental health overall?”	%, # who selected each response		
Excellent	22%, n=2	25%, n=2	28%, n=2
Very Good	22%, n=2	0%, n=0	43%, n=3
Good	33%, n=3	50%, n=4	14%, n=1
Fair	22%, n=2	25%, n=2	14%, n=1
*All participants “strongly agree” ^a The PHQ-2 is a widely used screen for depression with a positive score being 3 or higher.			