

Exploration of Rural Adolescent Female’s Experiences with Menstrual Health Education and Knowledge

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Abstract

Purpose: The purpose of this qualitative study was to explore the experiences of rural adolescent girls surrounding menstrual health knowledge and experiences.

Sample: Twenty-five participants met selection criteria; aged 15-18, enrolled at a high school in rural Alabama and willing to share experiences.

Method: Reflective journaling guided by moderator questioning, through a one-hour educational course elicited rich descriptions of lived experiences. Data consisted of journal responses to protect the privacy of participant answers. Saldana's First Cycle/Second Cycle constant comparative method was used for data analysis.

Findings: Three themes including feelings of isolation, desire for continued and consistent education, empowerment to influence were discovered. One subtheme of increased female involvement was also discovered. Overall, participants felt alone in their quest for knowledge concerning menstrual health as they entered adolescence and desired more education as well as discussions and guidance from their female relatives. From their experiences, they wish to empower younger girls with knowledge.

Conclusions: Participants in this study experienced period poverty, defined as the lack of access to menstrual health knowledge and education, as described in current literature. Rural girls may disproportionately experience period poverty due to already present disparities. Earlier and consistently timed education should take place in the home and educational setting to empower young girls to equip them with needed knowledge and reduce stigma surrounding their menstrual cycles.

Keywords: period poverty, women's health, menstruation, reproductive health

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Promoting sexual and reproductive health in young women in age-appropriate ways is vital to lifelong holistic wellbeing. One large part of reproductive health in the young woman is menarche and the monthly menstrual cycle. Providing instruction in methods to care for their bodies and normalizing the menstrual cycle can improve knowledge, confidence, and self-efficacy in developing females (National Association of Nurse Practitioners in Women's Health [NPWH], 2021). Stigma, a shameful mark setting people apart from others, surrounding the menstrual cycle and sexual health is still present today (Krusz et al., 2019). Coupled with parents ill equipped or unwilling to provide education surrounding menstruation, many young women are left without information or misinformation. Increased reliable and empowering education surrounding the menstrual cycle is needed for young women, optimally prior to the onset of their first menstrual cycle (NPWH, 2021).

Background

Period poverty, or the lack of access to menstrual health products or education, burdens the United States with up to 25% of women experiencing it at some point in their lives (Medley, 2021;

Rossouw & Ross, 2021). Although widely contributed to low income, period poverty can affect women at any time in their lives (Casola et al., 2022). Menstrual health needs, including supplies, sanitation, and education, oftentimes go unmet particularly in rural settings (Cardoso et al., 2021). Unmet needs can lead to fear and embarrassment surrounding menstruation contributing to silencing and subsequent emotional and mental health concerns in women (Casola et al., 2022). Women are reported to spend on average at least \$20 per period on menstrual health products (Park, 2022). With one in six women living below the Federal Poverty Line (less than \$30,000 for a family of four) in the United States, affording menstrual health products can be an issue for many (Alliance for Period Supplies, n.d.). Increased advocacy is needed to combat period poverty and empower young women to reduce stigma and fear surrounding menstruation (Zimlich, 2022).

Methods

Design

This qualitative study was guided by three research questions that enabled us to explore the lived experiences surrounding menstrual health education and knowledge for rural adolescent young women: a.) How do rural adolescent young women attain their knowledge about their period? b.) What feelings do rural adolescent young women have about menstruation? and c.) What support is provided to rural adolescent young women surrounding their period?

We used van Manen's (1990) phenomenological approach as a framework for allowing participants opportunity to reflect on their experiences of menstrual health education and knowledge through moderator-guided reflective journaling prompts. One identified challenge of phenomenology is that "common sense" pre-understandings and assumptions tend to predispose us to interpreting the nature of the phenomenon before we have fully explored its significance (van Manen, 1990); for a study conducted by an all-female, Caucasian research team with two members

also mothers of pubescent daughters, this notion felt particularly applicable, and we recognize that societal and cultural presumptions likely exist for many people related to our topic of inquiry.

Van Manen’s phenomenology of practice proves useful for nurses in contributing to the body of knowledge of nursing and allows nurses to act in a more reflective manner in their daily practices (Errasti-Ibarrondo et al., 2018). In following methodological suggestions proposed, the researchers focused on a phenomenon in which we were deeply committed. Through community partnerships in the county in which research was conducted, educators in the school sought assistance in providing menstrual health products for the school. In hearing this need, we sought to understand these experiences leading to period poverty in rural settings. Second, the focus of the research was solely on the experience itself. We sought to understand how each young woman had experienced their menstrual cycle and knowledge seeking prior to the education we provided. Rather than the conceptualization of experiences, we focused on the words of experience each participant provided. Through writing and rewriting of themes, and peer consultation the research team extracted rich data from the reported lived experiences of participants. Through frequent bracketing interviews, we were able to maintain a strong relationship with the words of the participants and put aside opinions and current knowledge of the research topic.

Also embedded within a phenomenological design is recognition of the “intentionality of consciousness” (Creswell & Poth, 2018, p. 76), in that a reality is perceived only within a context of meaning of the experience for an individual. This subsequently generates multiple realities related to the phenomena of interest—not only for participants of the research, but also for the researchers themselves and the readers of this final report (van Manen, 1990; Creswell & Poth, 2018). Therefore, bracketing of the researchers’ individual experiences served as an essential

component of this design to ensure focus remained on the experiences of the participants without bringing ourselves into the work.

To combat any potential bias in the study and to provide a true voice of the participants, all researchers utilized bracketing interviews with a colleague who has experience in qualitative analysis. Bracketing interviews occurred prior to the onset of research to engage with forgotten personal experiences and clarify any personal bias or feelings that may influence or impact findings from the journaling responses. The research team found this particularly important as we identified three potential areas of bias. First, the entirety of the research team was Caucasian, and all participants were African American; considering and acknowledging this power structure in the research was important to ensure validity of the findings. The research team also acknowledged both faculty members involved in the project have female children who are of menstruating age. These experiences were explored and discussed to reduce the chance of bias in analysis. And last, all members of the research team work and practice in healthcare which could lead to bias in findings based on previous experience as well as expert knowledge of the topic being presented. All team members engaged with potential bias and power structures created by race and occupation.

Theoretical Framework

This project was guided by the Social Ecological Model to understand potential influential factors and their interactions that may contribute to period poverty in rural adolescent girls. To explain these influences McLeroy et al. (1988) identified five levels of influence including individual, interpersonal, institutional, community and public policy. This project heavily focused on the individual by exploring knowledge and attitudes, the interpersonal level by exploring group interactions with friends and family, and the community by exploring norms and standards which

exist surrounding menstrual health. To adequately prepare targeted intervention for promoting health, one must assess and utilize findings pertaining to the interaction of factors within this model (Rimer & Glanz, 2005).

Sample and Setting

The sample was drawn from a small rural high school in one of the Blackbelt Counties of Alabama. The Blackbelt Region stretches along central Alabama and is named for its dark, fertile soil. Largely rural, the Blackbelt houses this study's setting with a population of 2,037 individuals. This community is designated as rural by the United States Census Bureau because its population is less than 50,000 individuals and is situated in a county that is designated as a Health Professional Shortage Area and a Medically Underserved Area (Alabama Department of Public Health, n.d.; United States Census Bureau, n.d.). This community population is also lower than the 2500 individuals needed to meet the definition of an urban cluster.

All participants in this study were African American young women, which is representative of the overall population of the high school and the county in which the study took place. Highlighting the experiences and knowledge of African American young women in this study assists in developing an understanding of health inequity and disparity due to social and economic conditions (Chinn et al., 2021). Currently, there are no qualitative studies explore experiences and knowledge rural, African American young women related to period poverty.

Procedure

Data Collection

The research team consisted of three members, two of which are experts in qualitative research methodology and implemented all aspects of the study to ensure consistency among study procedures. A total of two menstrual health education sessions were held, with each session lasting

up to 90 minutes. Sessions were led and moderated by the third author, who—at the time—was a senior-level nursing student engaged in faculty-mentored undergraduate research with the other two authors. In addition to leadership development for her as an undergraduate student, this meant each session was facilitated by someone closer in age proximity to the participants, thus creating a more open, personable, and relatable environment for everyone in discussing potentially sensitive matters. Faculty members were present in a supportive role, however, and aided in each session's overall organization, including obtaining informed consent from participants and assisting with data collection via reflective journaling.

The educational sessions were held during the school day in place of an elective course. They began with an icebreaker activity which allowed for the senior-level nursing student to get to know the participants. Discussion about menstrual health topics was guided by a colorful PowerPoint presentation and hands on activities. Topics presented included basic anatomy, hormonal and physiological changes to the body during the menstrual cycle, proper use of menstrual health products including pads, tampons and cups as well as how to care for oneself during bleeding time. Care discussion included ways to relieve menstrual cramps and other physical symptoms, proper disposal of care products and how to track menstruation with a period tracker.

Dedicated time for reflective journaling (lasting fifteen minutes in length) was offered at various timepoints during each session to allow participant expression of thoughts, feelings, and experiences while the content was still fresh on their minds. Before each session ended, journals were collected, scanned into a digital format, then returned to the participant for them to keep. In all, the research team collected a total of 125 (# of reflective prompts x # of journals) guided reflective responses from the journals of 25 participants in the menstrual health education sessions. Journal prompts included the following questions: 1.) Tell us how being on your period makes you

feel physically and emotionally. 2.) Tell us about a time you may have not had access to supplies or knowledge you needed to care for yourself during your period. 3.) Tell us how you seek out information regarding your period and your body. and 4.) Tell us how this education may have impacted you and how it can impact others around you.

Ethical Considerations

Institutional Review Board (IRB) approval from the investigators' university was obtained to provide full disclosure and the protection of the rights of all participants involved in this study. To obtain parental consent, paper packets were sent home to each student's parent. Each packet contained the study description, copies of the questions asked of their child during the research, and any risks and benefits to receiving education about menstruation. The lead investigator's contact information was provided for any questions parents may have concerning the research. Parents were asked to send the completed consent form with signature back to the school before the sessions. The lead investigator and teacher completed quality checks to ensure only those participants who had a signed consent remained present in the classroom during the research. The research took place during the school day, while students were in their health education course.

Prior to each educational session, the first author explained the purpose of the study and its procedures and obtained child assent detailing participant's rights. The participant was instructed if they wished to not take part, they could leave the classroom at any time during the research. Due to the sensitive nature of the topic being discussed, participants were provided a printed resource guide containing frequently asked questions about puberty, menstrual health, and website information for places to obtain additional, reputable information.

Data Analysis

Analysis of data collected from participants' reflective journaling prompts began with the organization and review of their digital journal entries obtained during the educational session. The analytic process was guided by Saldana's (2016) constant comparative method for qualitative data analysis; inductive and comparative techniques helped researchers identify similar patterns of ideas and concepts from the derived data. The language and descriptions used by participants guided the First Cycle of coding, in which we coded and divided data into subcategories. During Second Cycle coding, we sought to identify key concepts and relationships that began to emerge from the data using higher-level analytical skills such as classifying, prioritizing, integrating, synthesizing, abstracting, conceptualizing, and theory building to develop a logical, meaningful synthesis of the data (Saldana, 2016). The resulting categories were sorted and further classified and became the central themes of this inquiry.

All data was stored on a password-protected and encrypted cloud-based platform accessible only to members of the research team. Each researcher conducted independent reviews of digital journals, maintained documentation of field notes, and participated in bracketing of personal thoughts, ideas, perceptions, and experiences related to the research. Data saturation emerged between the twelfth and sixteenth reflective journal, but all responses to prompts were included in the review to ensure data would not reveal anything new.

Multiple approaches were employed to validate the data (Creswell & Poth, 2018). From the very beginning of planning stages, clarification of researcher bias was identified and continued to be reflected upon throughout the study procedures. Secondly, we participated in a departmental research support group intended to offer objective peer review, debriefing, and external audit of our research process and findings, with feedback received that helped ensure our interpretations and conclusions were supported by the data. Lastly, during data analysis, discrepancies among

research team members were handled via team meeting to discuss and interpret the issue, re-immense ourselves in the data via original transcript review, examine the discrepancy for potential meaning and/or biases, and finally, reach a consensus of derived codes, categories, or themes.

Rigor

The research team employed many methods to ensure trustworthiness of the project in four categories including credibility, transferability, dependability, and confirmability. Team members have spent an extended time with participants through this work and other community-based projects. In addition, the team sought informant feedback on the words and themes extracted from data analysis. Credibility and transferability were ensured by the dense description of the population being studied and detailed descriptions of the research methods. Lastly, bracketing interviews with the researchers highlighting feelings, biases and insights during the research process ensured confirmability.

Results

The volunteer participants were female adolescents, ranging from 15 to 18 years. All participants were African American.

Thematic Analysis

Three themes and one subtheme revealed the experiences and feelings of adolescent females in this rural community in which the study took place. Experiences lacked robust knowledge in education received and less than ideal access to hygiene products. Knowledge attained by participants came from female friends and family members. Through discussion and journaling, it was revealed that participants held ideas about their periods that were inaccurate. The moderator of the session spent time dispelling these myths and used evidence-based information to educate the participants. The community in which the study took place has one Dollar General that

participants reported as their main source of menstrual health products. Selection at this store is often limited and many times pricing is higher than urban counterpart stores. Themes emerged from the participants' statements and suggested a desire to provide information to the researchers to empower younger girls with knowledge and support. The emerging themes included Feelings of Isolation, Desire for Continued and Consistent Education, and Empowerment to Influence. One emerging subtheme was Increased Female Parent/Guardian Involvement.

Theme 1: Feelings of Isolation

The theme Feelings of Isolation answered research question two: What feelings do rural adolescent girls have about menstruation? This theme highlighted recurrent accounts of feeling alone and without physical and emotional support from family and other female authority figures in their lives. Feelings of isolation stemmed from not understanding what was happening on a physiological level and not being equipped with knowledge to perform hygiene during one's period. One participant wrote:

I am confused most of the time about what is going on in my body during my period. I have low confidence because I am scared I might smell bad or have blood running through my clothes. I feel sad and depressed during this time...I just don't know why.

In addition to lack of knowledge, lack of available supplies also contributed to feelings of isolation in this group of participants. Experience of period poverty can also lead to feelings of shame and other mental and emotional health concerns. One participant described a time in which she was at school left without sanitary supplies:

I was at school and my bleeding had come on. I didn't have anything to put in my underwear to catch it so I went to bathroom and wadded up some tissue and stuck down there. I was so worried my friends could smell it or I would get blood on my clothes. I don't want anyone

knowing I'm bleeding. I kept going back to the bathroom all day changing out my tissue. I was so worried.

There was a misconception among the group of participants that girls must miss normal daily activities such as sports or after school clubs because of their period. This led to reports of loneliness and frustration on missing things that were important to them. One participant explained her experience:

Being on my period makes me depressed. I say this because it cuts out some of my weekly activities. I can't be running around at practice with a bloody pad on. I get real frustrated when I am unprepared because I never really know when it is going to come on. I will call from the office and tell my aunt that I can't go to practice this afternoon.

Theme 2: Desire for Continued and Consistent Education

The theme *Desire for Continued and Consistent Education* answered research question one and described ways in which rural adolescent girls attain information concerning their periods. Overall, participants received some information from their female family members; however, some of it was inaccurate. Minimal information came from the school or health setting, and most information was supplemented through internet searches. Through the shared experiences of participants, there is a desire for more robust discussion and education from reliable and personal sources. One participant stated she asks “my mother and friends first. I don't also get a good answer from them so I will go and do a google search.”

The participants shared they did receive some education from school, but it was a one-time occurrence. One participant wrote:

In sixth grade they came to us and gave us a talk about our bodies. They told us about our periods, but I was afraid to ask questions. That was the last time I heard anything about it and I had already started my period. I wish the school would give us more chances to learn.

Feedback and experiences shared by participants surrounding the education provided to them through this project were positive. One participant wrote that “[The education] has really opened my eyes to some things I did not know, but also to some things I thought I knew and were wrong.” Another participant shared that, “The information you gave us today increased my knowledge. I feel like from what I learned from you; I can feel more confident about down there.”

Subtheme 1: Increased Female Parent/Guardian Involvement. The subtheme *Increased Female Parent/Guardian Involvement* provides additional information about the experiences of participants regarding their desire for additional and consistent education concerning their periods. This subtheme shared the same central organization of the theme *Desire for Continued and Consistent Education* but focuses on the notable element of female guardian involvement in that education and knowledge seeking. Not only would they prefer more open conversations and education from their female family members, but they also realized during the educational session that some or much of what their family members told them was inaccurate. Most common reported inaccuracies involved the physiologic changes occurring in the body during the menstrual cycle and the misconception that period blood signified filth and dirtiness. One participant wrote, “I like talking to my mom and aunt first about these things. I feel comfortable around them.” Another participant shared that she, “wished my mom knew more about my period coming on.” Although girls want standardized and consistent education from health professionals at school, they also wish more information would come from their female family members.

Theme 3: Empowerment to Influence

The theme *Empowerment to Influence* revealed that the girls in the study feel a duty to younger girls in assisting them attain knowledge and access to sanitary products. This theme answered research question three and shed light on the support, or lack thereof, that is provided to girls in this setting. Participants felt strongly about having supplies available to all girls at school that are accessible to empower others. When asked if a sanitary product hygiene locker at school would be useful to students one participant wrote:

Having period products at school would be great. I know some people do not have these resources at home. It can also help those girls who are just unprepared and don't know when their period will come on. They don't have to be embarrassed to grab something out of the locker. They also do not have to check out of school or leave school. I see that a lot.

In addition to empowering other girls with access to products, it was clear the girls in this study were empowered by the education received and wanted to share it with others. Learning of their own experiences highlighted the importance of sharing information with younger girls. One participant wrote:

It is so important to educate young girls about their period. You will just know what to expect and what to do for it. I would really like to help other girls to know things I didn't know. I don't like that girls feel shame about their period coming on. I want them to know why it's happening and they don't have to feel bad about somebody making fun of them about it.

Discussion

This work aimed to explain overall experiences that rural adolescent young women experience surrounding menstrual health education and knowledge. There are currently no known studies that highlight the experiences of rural, African American young women and their periods in The United States, although some similar studies have been implemented internationally. As

described by participants through reflective journaling, the results of this study provide insights into the lived experiences and feelings of adolescent young women in a rural Alabama community concerning their period.

Nursing Implications

Based on the findings in this project, young women from rural Alabama experience forms of period poverty whether that be a lack of education, knowledge, or sanitary supplies. The participants revealed through reflective journaling that an increase in action from adult contacts including female family members and mentors could aid in overcoming knowledge and experience deficit. Nurses in rural settings are especially poised to combat this problem by working with school officials, school health educators as well as parents to plan targeted education early and consistently throughout the preteen and teen years. Education should start early and then aimed to be reinforced as the female grows in age. This study was implemented in those age 15 to 18 years to gain an understanding of what knowledge and experiences of young women who have mostly likely have already experienced the onset of their first period. With the average age of menarche at 12 years, education should be delivered well before this time (Lacroix et al., 2023). Nurses should strive to work with health education teachers in primary schools to utilize or develop evidence-based materials about menstrual health to instruct young females in the school setting. In addition, efforts can be made to host educational events for parents led by nurses and health educators to assist in factual and scientific based conversations in the home that are supportive to growth and development. This study's findings were consistent with Casola et al.'s (2022) recommendations to act against period poverty. There are also benefits to providing educational information about menstrual health to those of other genders. This provides the opportunity to supply others with information about the menstrual cycle and normalize it as a part of everyday life as well as provide understanding of the

experiences females have concerning their period. Combating stigma associated with the menstrual cycle can be addressed by universal menstrual health education.

School and community health center nurses in rural settings can talk openly and honestly with young females in formal and informal settings to increase knowledge and reduce stigma regarding menstruation. This can be done through scheduled classes or open office hours to provide reliable education guided by patient questioning. This education should start early and remain consistent throughout adolescence. In addition to increased education for young women, one recommendation is to increase educational experiences for female guardians. Participants expressed a desire for more discussion to occur with their female family members; however, based on data from this study these individuals may lack dependable knowledge concerning menstruation. Evidence based education by a nurse can assist women in guiding their young female family members through their period.

Nurses can also advocate for fair and equitable access to menstrual health products through policy change or community outreach efforts. Policy change suggestions include covering menstrual health products under the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) in all states as well as eliminating the tampon tax, which has already been done in several other countries (Casola et al., 2022). One aspect of this project was the provision of pads and tampons collected by university students to stock a menstrual health locker for the young women in the school. Efforts like these can easily be organized through organizations and university level partners through community-based efforts.

Limitations

Limitations present in this study include the qualitative nature in which the data was collected as well as the nature of the content being discussed with participants. Qualitative methodologies

are commonly used modes of inquiry in the social sciences; however, some limitations still may exist (Marshall & Rossman, 2016). The investigators intended to give a voice to those participating in the study about their experiences with period poverty that only qualitative data collection methods could achieve. Rich experiences were collected through reflective journaling and represented the population within the study. Due to the numbers of participants, results are not generalizable but do reflect larger studies situated within current literature. The investigators aimed to explore experiences within the community in which they perform outreach.

Another limitation is the sensitive and stigmatized nature of answering questions about menstruation. To combat this limitation, the investigators utilized reflective journaling so the participants could freely express their experiences and feelings on paper in a supportive and encouraging environment. Participants potentially still left out information in their journaling due to discomfort with the topic. This limitation cannot fully be eliminated with shame and stigma still attached to women's health topics.

Conclusion

Period poverty continues to be an issue for women domestically and globally. Although women of all social classes have the potential to experience period poverty at some point in their lives, those in underserved and rural communities are disproportionately affected (Cassola et al., 2022). This project highlighted experiences and knowledge of a group of adolescent young women in rural Alabama. Through the development of three themes and one subtheme, participants offered insight into the degree in which period poverty is experienced in rural Alabama. The young women participating in this project expressed they feel isolated due to their period, crave increased education and discussion with their female family members, and have a hope to empower younger women going forward to combat period poverty.

Nurses are well equipped with skills to provide education, support, and mentorship to young women to aid in stigma reduction and knowledge attainment. Efforts in period poverty mitigation can start in small communities and grow to more regional and nationwide efforts to raise awareness, trigger open discussion, and enact policy engagement.

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