

# Psychosocial Experiences of Pregnant Adolescent Girls: A Qualitative Phenomenological Study in a Rural District in Ghana

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## Abstract

Adolescent pregnancies are associated with several psychosocial challenges. This study explored the psychosocial experiences of pregnant adolescents in a rural District in the Volta Region of Ghana. The participants were 16 pregnant adolescents purposively sampled from 3 communities. Individual in-depth interviews were used for data collection and analyzed using the thematic analysis method. An inductive approach was used to identify emerging central themes from the sub-themes by merging the codes delving deep into the contents and grouping similar statements. Six themes and 14 sub-themes were identified and included (1) meanings attached to the pregnancy/feelings at the first discovery of pregnancy, (2) reaction from parents, friends, neighbors, and sexual partner/boyfriend, (3) participation in social activities in the community, (4) source of support, (5) challenges during pregnancy, and (6) perception of the antecedents to the pregnancy. The factors associated with an adolescent girl getting pregnant were ignorance, promise of marriage, lack of awareness, lack of knowledge on contraceptive use, and nature of interpersonal relationships with friends. Adolescents' reaction to the news of pregnancy was a feeling of dislike and unpleasantness. The adolescent's immediate thoughts of the pregnancy were to terminate the pregnancy. The type of interpersonal relationship with adolescents' parents, friends, and neighbors was strained. The sexual partners were the major sources of financial and resource support. Healthcare providers must use targeted intervention to train, educate, and support adolescents and parents to address psychosocial concerns arising from pregnancies. Future studies should quantify the magnitude of the psychosocial burden of teenage pregnancy. This can lead to developing and testing interventions to prevent or mitigate the liability of teenage pregnancy in the district.

## Keywords

adolescent, challenges, pregnancy, psychosocial, experiences, antenatal care

### What do we already know about this topic?

In low economic settings, adolescents' pregnancy is associated with psychosocial challenges because of the strained socioeconomic situation; and the inability to negotiate comfortable living due to low age, inadequate development, and poor access to support institutions.

### How does your research contribute to the field?

This study identified and described the experiences, perceptions of antecedents, and psychosocial challenges encountered by pregnant adolescents in poor rural communities.

### What are your research's implications toward theory, practice, or policy?

Healthcare providers must use targeted intervention to train, educate, and encourage continued and consistent contraceptive use among adolescent girls and boys while parents, care institutions and school authorities are encouraged to support pregnant adolescent girls.



## Introduction

Adolescence is a transition period heralded by a change in physiological, physical, psychological, and social makeup and is usually characterized by exploration and exuberance.<sup>1</sup> The transition out of childhood offers growth opportunities not only in physical dimensions but also in cognitive and social competence, autonomy, self-esteem, and intimacy.<sup>2-4</sup> Adolescence is generally considered to begin with puberty, the process that may lead to sexual maturity or fertility<sup>5,6</sup> and may be associated with risks as some have trouble handling these physical, physiological, and emotional changes at once making them prone to pregnancy.<sup>7,8</sup> There are about 16 million adolescent girls (aged 15-19 years) worldwide, and about a million less than 15 years old give birth each year.<sup>9</sup> The global population of adolescents continues to grow and projections indicate that the number of adolescent pregnancies will increase globally by 2030, with the greatest proportional increases in Africa.<sup>10</sup> Each year about 14 million pregnancies occur across sub-Saharan Africa with nearly half of them occurring among women aged 15 to 19 years<sup>11</sup> and a resultant high pregnancy-related morbidity and mortality.<sup>9,12</sup>

There are significant concerns about the high rate of adolescent pregnancy and the negative impact includes neonatal mortality and morbidity, low birth weight, and low utilization of antenatal health.<sup>13,14</sup> Adolescent pregnancy is commonly associated with suicidal tendencies, thoughts of abortions, anxiety, poverty, rejection by families and friends, school dropouts, preterm births, and congenital abnormalities.<sup>15</sup> Adolescent pregnancy is commonly associated with adverse psychosocial, socioeconomic, and health outcomes.<sup>15-17</sup> Abortions, stillbirths, and losing a baby within 6 weeks after the birth from adolescent mothers are higher as compared to the children of mothers between the ages of 20 and 24.<sup>2,18,19</sup> In Ghana, a Quarter of children in the Volta (22%) and Central (21%) regions get pregnant during their “teens” which makes the regions have a high incidence of adolescent pregnancy.<sup>20-22</sup> In the Volta region, 23.2% of adolescent pregnancies were recorded in the Adaklu District.<sup>21,22</sup> Studies have described adolescent pregnancy incidence, prevalence, associated factors, and psychosocial dimensions, but none were conducted in the Volta region and the Adaklu district.<sup>21</sup> The lack of studies focusing on the psychological dimension of adolescent pregnancy in the Adaklu district that recorded the highest prevalence of adolescent pregnancy

motivated the conceptualization of this study. Understanding the psychosocial experiences of adolescent girls is imperative to institute interventions primarily. This study can serve as a starting point to conceptualize a study that quantifies the burden of teenage pregnancy. This can aid in developing interventions to prevent or mitigate the overall influence of the problem in the area. This study explored the psychosocial experiences of pregnant adolescents in a rural District in the Volta Region of Ghana.

## Materials and Methods

### Research Design

This study was a phenomenological descriptive exploratory study with a qualitative design used to explore the psychosocial experiences of pregnant adolescents. The phenomenological design was appropriate because the study explored the meaning of the lived experiences of pregnant adolescents.<sup>23</sup> Exploratory research is aimed at investigating a phenomenon in the manner in which it is manifested.<sup>24,25</sup> These approaches were used because of their ability to unearth deep-rooted psychosocial experiences of pregnant adolescent girls. The study adhered to the EQUATOR guidelines for the conduct of qualitative studies (COREQ). The detailed checklist is shown in Supplemental File 2.

### Study Setting

Adaklu District has the administrative capital as Adaklu-Waya—geographically positioned in the center. The total population of the District is 36 391 with 17 800 and 18 591 females (51.0%). The District is wholly rural. The inhabitants are mostly farmers with the Ewe tribe dominating. The target population for the study was pregnant adolescent girls in the district, sampled from 3 communities—Abuadi, Helekepe, and Ahunda.

### Population and Sample

The population was made up of pregnant adolescents aged 16 and 19 years regardless of the age of the pregnancy. However, all the adolescents were in the second and or third trimester of pregnancy and were attending antenatal clinic (ANC) at the time of the study. At the time of data collection, the ANC record books in the selected communities showed

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that Abuadi (13), Helekpe (22), and Ahunda (75) had 110 pregnant adolescent girls. A total of 16 pregnant adolescents from Abuadi, Helekpe, and Ahunda Health Centers were sampled. Two (2) of the participants were from Abuadi, three (3) from Helekpe, and eleven (11) from Ahunda Health Centers. The data collection stopped from the 16th person because we had reached a data saturation point and no additional themes were emanating from the data. The inclusion criteria included (1) girls who were confirmed pregnant, (2) within the stipulated age for the study, (3) had no mental illness that could influence their ability to recall and/or be coherent, and (4) were willing to participate in the study. Participants were recruited when they visited the healthcare facility for routine ANC services. Individual consents were obtained for adolescents 18 years and older. Child assent and parental consent were obtained from adolescents who were less than 18 years old.

### *Data Collection*

The interviews were conducted in a quiet and serene environment at the client's home (4) or within the community health facility (12) depending on the participant's preference. The data collection was conducted within a month from July to August 2023. A participant was interviewed only once and no further follow-up was required. Each interview lasted approximately 25 to 30 min.<sup>26</sup> The interviews were conducted (first and second authors—male and female) and assisted by one of the authors (third author—female). The interviewers and research assistants, individually have over 6 years of experience in qualitative studies and in-depth interviews. The interviewers and assistants did not have a prior relationship with the participants before the data collection. However, nurses working in the health centers of the selected communities and assisting in the recruitment of the participants had prior care relationships with each of them. A token in the form of a voucher for diapers was given in preparation for the birth to each participant after the interview sessions.

The interviews were conducted using a self-developed interview guide (attached as a Supplemental File). The interview guide assessed knowledge of pregnancy, feelings regarding the current pregnancy, first thought upon releasing she is pregnant, the meaning of the pregnancy, the reaction of the family toward the pregnancy, feelings regarding the physical, mental, and psychological changes associated with pregnancy, and the influence of the pregnancy on interpersonal relationships. The other aspects assessed reasons for getting pregnant, financial sources such as support by family and “spouse,” and any other challenges experienced as a result of the pregnancy. There were specific props used in the interview to facilitate the participants to give in-depth details. The interview sessions were audio recorded upon permission from the participants or parents who gave consent.

### *Data Analysis*

Qualitative studies comprised an inductive process that involved examining words, descriptions, and processes.<sup>27</sup> The interviews were audio-taped and transcribed verbatim. These transcripts were then read many times to identify descriptive concepts, threads of thoughts, and consistency. The data reduction was done using Tesch's method of data analysis for a qualitative study, and open coding was done.<sup>28</sup> As a result, there was an independent line-by-line coding of the transcripts by forming free codes that were merged into sub-themes and subsequently the main themes.

After the initial interview, 2 researchers (ES and KDK) with experience in qualitative data analysis methods, independently listened to the audio recording, read the transcript separately, and developed the individual initial codes. The 2 coders compared the generated codes and agreed on the initial codes through consensus. In subsequent interviews, new codes that appeared were added to the initial codes and synchronized until data saturation was reached when new codes were not identified. Consequently, these descriptive codes were grouped based on the ideas expressed which were later developed into sub-themes and themes. To achieve this the Creswell<sup>28</sup> thematic data analysis method was incorporated to arrive at the themes. This method of thematic data analysis involved 6 steps. The 6 steps included (1) familiarization with the data, (2) generating the initial codes, (3) searching for themes, (4) reviewing and defining the themes, (5) organizing the themes into coherent structures, and (6) producing the analysis report as a concept.

### *Rigor*

To ensure the trustworthiness of this study—credibility, confirmability, transferability, and dependability were explicitly adhered to. Threats to the credibility were minimized using peer proofreading, and competent review by members of the Ethics Review Committee of the Ghana College of Nurses and Midwives, and the Ethical Committee of Ghana Health Service. During the data analysis process, there were continuous references to the interview scripts, field notes, and audio records to support findings. Conformability was attained through the involvement of experienced researchers. All the researchers had at least 5 years of working experience in qualitative study. Bracketing of existing knowledge and preconceived ideas was adhered to during data collection and analysis. Data collection and analysis were concurrently done. Also, the transcripts were returned to the participants (6) to ensure confirmability. All interviews were conducted in the same manner using an interview guide.

### *Ethical Considerations*

Permission to conduct the study was obtained from the Human Research Ethics Committee at the Ghana College of

**Table 1.** Themes and Sub-Themes.

Themes	Sub-themes
Meanings attached to the pregnancy/feelings at first discovery of pregnancy	Excitement Negative emotion Ambivalence
Reaction from parents, friends, and sexual partner	Disappointment Supportive reactions
Participation in social activities	Affected Unaffected
Source of support	Sexual partner/boyfriend Parent/mother/father only or grandparent
Challenges during pregnancy	Financial and social challenges Physical condition
Perception of the antecedents to the pregnancy	Promise of marriage Rape Ignorance

Nurses (ID-R166048/19) and the Ethics Committee of the Ghana Health Service (GHS/ADHD/HASS/4-2020). The study was done following the declaration of Helsinki and the guidelines stipulated by the institutional ethics committee. Participants completed a consent form before the start of the interview. Parental permission was obtained for participants less than 18 years old. Interviews were recorded on audio tape but participants were not addressed by their names to ensure anonymity and confidentiality. Participation was voluntary. An arrangement was made with a counselor to provide support in case the process of data collection adversely affected any participant.

## Results

### *Demographic Characteristics of Participants*

Sixteen (16) pregnant adolescents aged between 16 and 19 years living within the Adaklu District were interviewed. The participants were 16 years (1, 6.3%), 17 years (3, 18.8%), 18 years (6, 37.5%), and 19 years (6, 37.5%). All the pregnant adolescents attended ANC in the District. The participants were from Abuadi (2, 12.5%), Helekpe (3, 18.8%), and Ahunda (11, 68.75%) health centers.

The level of education at the time of data collection of the participants were those who never attended school (1, 6.25%), had a minimum of primary (1, 6.25%), junior high school (2, 12.5%), and those that quit school at various levels (12, 75.0%). All of them were having their first gestation except 2 (12.5%) who had a son each. The adolescent girls (14, 87.5%) had the intention to return to school after birth. The rest had no immediate intention to return to school after birth as they intended to learn a trade, marry, or do business. The gestational ages ranged from 16 to 42 weeks. None of the pregnant adolescent girls were married at the time of the interview but some were cohabitation with their boyfriend

(6, 37.5%). The rest of the participants were living with both parents (4, 37.5%), living with a single parent like the mother (2, 12.5%), and the father (1, 6.25%). Some were living with the grandmother (2, 12.5%) and both the mother and the grandmother (1, 6.25%).

### *The Phenomenological Experience of Pregnant Adolescent Girls*

An inductive approach was used to identify emerging central themes from the sub-themes by merging the codes delving deep into the contents and grouping similar statements. Six (6) major themes and 14 sub-themes were identified and included (1) meanings attached to the pregnancy/feelings at the first discovery of pregnancy, (2) reaction from parents, friends, neighbors, and sexual partner/boyfriend, (3) participation in social activities in the community, (4) source of support, (5) challenges during pregnancy, and (6) perception of the antecedents to the pregnancy. Table 1 illustrates themes and sub-themes that emerged from the data analysis.

#### 1. Reaction or feelings at first discovery of pregnancy / Meanings attached to pregnancy

This theme illustrated the emotional physical and psychological reaction upon discovery of pregnancy. Also, the theme included the value attached to the pregnancy and what the entire family (of the pregnant adolescent) or sexual partner's reaction was. Participants' first reactions to pregnancy were different—excitement, feeling sad and distasteful, and ambivalence. In some of the pregnancies, the reaction was a feeling of dislike and unpleasantness, others were ambivalent while among the rest, the thought of pregnancy was welcoming. Under this theme, 3 sub-themes emerged and included (a) excitement, (b) negative emotion, and (c) ambivalence

##### a. Excitement

An adolescent's pregnancy was welcomed by some girls and met with excitement because of the prior knowledge that they would be married. A few of the participants were happy that they were pregnant because their boyfriends promised to marry them if they became pregnant. They indicated that they became pregnant intentionally to have children for their boyfriends because the baby would consolidate the relationship and bond them together. Some of the adolescent pregnancies were planned.

I was happy that I was pregnant with my boyfriend, he promised to marry me, and I know he will (BH, 19 years, 41-week pregnant)

I was happy because I wanted to deliver for him. We have been 'dating,' and our parents are aware of it. The baby will seal our



relationship and bond us together. (AP, 19 years 38 weeks pregnant)

As a result, some of the participants never thought of abortion as an option and hoped for good health and safe delivery. Some accepted the pregnancy after they were stopped by their parents, friends, and boyfriends from abortion.

I will keep it, and take care of it since it has already happened.... And I hope we will have a successful relationship leading to marriage (AK, 18 years, 39 weeks pregnant)

I had no second thoughts. All I prayed for was an easy delivery. I had no thoughts of abortion (GK, 16 years, 36 weeks pregnant)

#### b. Negative emotion

Among some adolescent girls, pregnancy was not planned hence expressed diverse forms of negative emotions. Some adolescent girls revealed that pregnancy happens when they do not even think about it as a possibility. They were confused, sad, scared, frustrated, and annoyed to know that they were pregnant. Some of them expressed disbelief and shock that they were indeed pregnant. This emotional state was evident as some adolescents still had challenges engaging in direct eye contact.

I was sad and hated that I was pregnant.... I was sad because I was not expecting this pregnancy, (TG, 17 years with 32 weeks pregnant)

I was not happy at all.... Imagine the image I have brought to my family" (VK, 18 years, 20 weeks pregnant)

I was scared that I got pregnant" (AM, 18 years, 38 weeks pregnant)

I felt that my world had turned upside down. I felt dizzy, sad, and annoyed with myself. ....at this time that I was in School? Hmm! It was a bad feeling to know that I was pregnant" (BK, 19 years, 38 weeks pregnant)

Not only were feelings of sadness and unpleasantness expressed, but another important emotion by some adolescents upon discovery of pregnancy was depression. Some of the participants were depressed when they got to know that they were pregnant and were not interested in any activities going on around them. They dropped out of School, became isolated, stopped attending church services, and community occasions (like funerals, naming ceremonies, and weddings), and became despondent. The level of depression was such that some of them did not want to be spoken to at all.

I hated it when my sister came to chat with me or ask me questions. I felt like not responding to her, ... and I wish she quickly got out of my site..... I was surprised that she could not see that (PV, 18 years, 30 weeks pregnant)

it was annoying to hear people talk around me. At times my mother would enter the room and call me severally before I would be aware that she was in the room (PG, 18 years, 37 weeks pregnant)

I 'disturbed' myself by getting pregnant at this time.... making it difficult for me to sleep at night. I am young and I should be sleeping in the night not to be thinking..... but rather I do more thinking at night (DB, 19 years, 24 weeks pregnant)

The level of dislike toward the pregnancy was so pronounced that some intended to abort the pregnancy. Among some of the adolescents, the immediate reaction to pregnancy was to terminate it through abortion. The thought of committing abortion and the indecisiveness also showed that the adolescents found the pregnancy to be an overwhelming experience.

The first thought that came to my mind was to abort ...! I have to be an important person in the future and this pregnancy was a stumbling block to my ambition (BG, 18 years, 39 weeks pregnant)

I had no other thought than to abort..... How would my neighbors treat me and my parents if they got to know I was pregnant? I couldn't stand the humiliation (KY, 17 years, 37 weeks pregnant)

One of the participants even took immediate steps toward having an abortion.

I went to the hospital for an abortion, but the pregnancy was too old (AM, 18 years, 38 weeks pregnant)

#### c. Ambivalence

The in-depth interview indicated that 2 participants were indifferent to the meaning of the pregnancy. They just did not mind whether they were pregnant or not and they were adamant as to what their family, friends, and neighbors would say about them. This is because one of them associated the pregnancy with an act of God.

I was not sad or happy, it was just a funny feeling ..... No! I was just there. I was not so sure what this pregnancy means to me (WE, 19 years, 38 weeks pregnant)

I was not scared or felt bad because this baby is from God (GK, 16 years, 36 weeks pregnant)

#### 2. Reaction from parents, friends, neighbors, and sexual partner

This theme sought to identify the adolescent's explanation of the reaction of the parents, friends, neighbors, and sexual partner. The immediate reaction of community members was those who were supportive and encouraging and those who expressed disappointment and disquiet about the pregnancy.

Under this theme 2 sub-themes emerged including (a) disappointment and (b) supportive reactions

#### a. Disappointment

Some of the participants indicated that initially their parents, friends, neighbors, and sexual partners were disappointed. Some parents threaten to sack pregnant adolescents from their homes. A few fathers also refused to provide food for some of the pregnant adolescents. A few of the participants were disappointed by the attitude of their boyfriends who disowned the pregnancy.

My boyfriend promised to marry me but when I became pregnant, he warned me not to identify him as the person who impregnated me.... My parents were also annoyed because they didn't know the one who impregnated me (DK, 18 years, 30 weeks pregnant)

Some of my friends and neighbors do not talk to me anymore.... They tease, gossip, and call me a bad girl and all sorts of names (referring to distasteful expressions) in the neighborhood. Some of my friends laugh at me and say that I have become an adult so they cannot be friends with me..... I should join the 'adult group.' None of my friends visit me anymore (TG, 17 years, 32 weeks pregnant).

I did not believe that having sex once with my boyfriend could make me pregnant. I denied the idea of being pregnant because I was hoping that the menstruation would come next month, but it never did (TG, 19 years with 38 weeks pregnant).

My mother was sad and demanded I abort the baby but I told her I will keep it.... My father was not aware until I informed him. He was also disappointed in me (AM, 18 years, 38 weeks pregnant)

Among some of the participants, the reaction of community members was anger. The data gathered indicated that most parents were angry with the adolescent for getting pregnant. A participant indicated that her colleagues in school were always ridiculing her until teachers warned them to stop that attitude.

My parents were not happy. My friends don't talk to me again because I did not abort the pregnancy as they suggested (PV, 18 years, 30 weeks pregnant)

My parents were angry like my friends when they got to know that I was pregnant" (TG, 17 years, 32 weeks pregnant)

My parents were happy and my boyfriend was not happy but has accepted the pregnancy (VK, 18 years, 20 weeks pregnant)

#### b. Supportive reactions

Some of the parents and the boyfriends were happy for the pregnant adolescents. Those who were happy for them

encouraged them. Some parents even offered to meet their boyfriends so that they would marry after their daughters were put to birth.

... my boyfriend's family and my family including my friends have accepted me and the pregnancy and encouraged me to keep it (AM, 18 years, 38 weeks pregnant).

both families have accepted me as their member and treat me as part of the family. My grandparents are very happy with me. They encourage me to eat well and take good care of myself. My grandmother even follows me to the antenatal clinic at times and pays for the miscellaneous charges (GK, 16 years, 36 weeks pregnant)

My parents were not happy either but they encouraged me to give birth and continue with my education (AK, 18 years, 39 weeks pregnant)

The relationship between pregnant adolescent girls and their parents was not strained as they maintained a cordial relationship. Some of the participants related well with parents at home and in the community. Pregnant adolescent girls further indicated that their relationships with their friends were not affected. Also, the girls indicated that even though initially some parents did not like the fact of the pregnancy, over time, they had to accept and support the pregnant adolescent girl.

I relate well with everyone.... My friends visit me to keep me company (WE, 19 years, 38 weeks pregnant).

Initially my parents were annoyed. But they have accepted the facts now.... rather encourage me to take good care of myself (AM, 18 years, 38 weeks pregnant)

My parents and friends including my sexual partner/boyfriend were not happy with me getting pregnant but with time everything is becoming normal (AK, 18 years, 39 weeks pregnant)

### 3. Participation in social activities

This theme illustrated the level of influence on adolescents' ability to participate in social activities in the community after getting pregnant. The results showed that for some adolescents' engagement in social activities was affected while for others there were no changes. Two sub-themes emerged and included (a) affected and (b) unaffected.

#### a. Affected

Adolescent pregnancy was seen by some participants as shameful and humiliating. Pregnancy hindered adolescents' ability to freely interact with their friends, family, and neighbors. Some of the participants chose not to participate in social activities because they were ashamed.

Look at my shape and compare it with my age mates, they have beautiful well-shaped appearance but I have a big stomach ..... I feel shy, very shy, when my mother sends me to buy something for her, I walk fast to get it and come back quickly (TG, 17 years, 32 weeks pregnant)

the worst moment is when you meet a friend who is not aware that you are pregnant, if you see her from afar then you can 'dodge her' but if the two of you meet unexpectedly you can never look directly (DK, 18 years, 30 weeks pregnant)

I don't participate in social activities because I'm shy! (DB, 19 years, 24 weeks pregnant)

#### b. Unaffected

A few of the pregnant adolescents participated in social activities in the community as long as they wished. Pregnancy was not a hindrance to participation in social activities.

My friends visit me, do not say anything bad about me.... My relationship with my parents, friends, and sexual partners is still the same. (GK, 16 years with 36 weeks pregnant)

I participate in every social activity (BH, 19 years, 41-weeks pregnant)

#### 4. Source of support

The sources of financial and resource support for pregnant teenagers were assessed under this theme. We identified that close family relations or the sexual partner of adolescent girls were the major sources of financial and resource support. Under this theme, 2 sub-themes emerged and included (a) sexual partner/Boyfriend and (b) Parent/Mother only/father only or grandparent. For a few of the girls, support and resources were gotten from both their family or the family of the man responsible for the pregnancy.

##### a. Sexual partner/boyfriend

A few of the pregnant adolescent girls had support from their sexual partners. This was peculiar to those adolescents who had indicated that the sexual partner accepted the pregnancy. In places where this mutual understanding existed between the sexual partner and the girl's family, support was provided by the potential spouse.

The boy's parents (...give their son money meant for me) and my parents support me financially... . They continue to provide for me as they used to do. (AP, 19 years, 38 weeks pregnancy)

My boyfriend supports me and pays for the cost of care. (BK, 19 years, 38 weeks pregnant)

My boyfriend and his parents give me money and other resources (WE, 19 years, 38 weeks pregnant)

##### b. Parent/mother only/father only or grandparents

Most of the participants indicated that they had support from their parents or family members. Some of them stated that initially they were not supported but now their families support them.

My mother supports me financially because my boyfriend is schooling (VK, 18 years, 20 weeks pregnant)

my grandmother takes good care of me and the pregnancy. I live with her and she feeds me well. (VK, 18 years, 20 weeks pregnant)

#### 5. Challenges during pregnancy

This theme highlights the challenges that adolescent girls encounter as a consequence of pregnancy. The challenges encountered by adolescent girls are multiple and varied and range from financial, to physical, and sometimes worsened by the unacceptance of the pregnancy by the sexual partner. Under this theme, 2 sub-themes emerged and included (a) financial and social challenges and (b) physical condition.

##### a. Financial and social challenges

Financial obligations during pregnancy were identified as one of the major challenges of pregnant adolescent girls. This is because the pregnant adolescent girls did not have any reliable source of income. Therefore, finances were only a challenge after the girl was already pregnant as she was hitherto supported by the family. Adolescents were challenged to provide their basic needs resulting from the pregnancy (items to care for the pregnancy and birth preparation), and sometimes even food, clothing, and shelter. This financial difficulty appeared even more pronounced among those whose boyfriends or sexual partners denied impregnating them. Two girls complained about financial challenges as their boyfriends suddenly stopped caring for them because they realized she was pregnant. For this cadre, hitherto, the boyfriend provided some support to them.

My boyfriend is not caring for me enough like he used to do when I was not pregnant (BG, 18 years, 39 weeks pregnant)

My challenge is how I will buy the necessary things listed by the midwife (referring to items for birth preparedness). This is because my boyfriend always gets angry and beats me whenever there is a demand to spend money (GK, 16 years, 36 weeks pregnant)

Some of the boyfriends saw adolescent pregnancy as a burden that interfered with developmental processes and the educational opportunities that they needed to acquire. Consequently, families began to prioritize meager incomes

and unfortunately for some pregnant girls, she did not meet the need for the priority.

My parents have spent a lot of money on my education and I have to drop out of school because I was pregnant..... they feel I am just a waste (BK, 19 years, 38-week pregnant)

At first ..... we argued a lot to the extent that he could choose not to give me money but now everything is fine with us (WE, 19 years, 38 weeks pregnant).

#### b. Physical condition

Some of the participants in this study also talked about having physical conditions such as abdominal pains, dizziness, waist and backache, and swollen feet. Others complained of pain around the vulva. Some also complained about their physical changes and appearance such as eating too much and sleeping too much.

I have stomach (abdominal) pains on and off ... but the midwife gave me medication, and my breast is also growing big. (PD, 17 years, 32 weeks pregnant)

Sometimes I feel dizzy and it feels like my blood is not flowing well. I have back pains and also headache (GK, 16 years, 36 weeks pregnant)

I have swollen legs, abdominal 'pains on and off' and I feel so tired (AM, 18 years, 35 weeks pregnant)

#### 6. Perception of the antecedents to the pregnancy

This section focuses on the participants' experiences related to the perception of the antecedents of the current pregnancy. Adolescent girls associate several and multiple factors with becoming pregnant. These factors ranged from the promise of marriage, lack of awareness, and interpersonal relationships with friends. The subthemes that emerged were (a) promise of marriage, (b) Rape, and (c) Ignorance.

##### a. Promise of marriage

Most participants stated that their boyfriends promised to marry them as the reason for engaging in sex and subsequently the pregnancy.

I am happy to be pregnant. We will marry after I give birth..... (BH, 19 years, 41 weeks pregnant)

My family and boyfriend's parents support us, we will marry after (AP, 18 years, 38 weeks pregnant)

##### b. Rape

A participant attested that she had forced sex under the influence of alcohol. She trusted a friend ignorantly and

followed him to his house where the incident occurred. The adolescent has become pregnant with one incidence of sexual act.

I was invited by a boy, who was always kind to me, to his house, where he served me a drink. The drink was very nice so I took a lot of it and I became drunk. I remember him trying to forcefully have sex with me but I was too weak due to the alcohol to resist and this was how I got pregnant. That was my first time having sex (AM, 18 years, 35 weeks pregnant).

##### c. Ignorance

Insufficient knowledge of contraception and condom use was responsible for some of the pregnancies. The reasons for not using or inconsistently using condoms included the non-availability of condoms at the point of need, and being unable to negotiate condom use. Others believed that they could use their menstrual cycle to prevent pregnancy and therefore did not need to use condoms.

I normally use the calendar method to prevent pregnancy, but this time I do not know why it failed (PG, 18 years, 36 weeks pregnant)

I thought that he would use a condom. It all happened suddenly (BK, 19 years, 40 weeks pregnant)

He uses a condom at times when my period is not safe so I did not expect to get pregnant now (BG, 19 years, 32 weeks pregnant)

I miscalculated my cycle. I was using the calendar method. (BG, 19 years, 32 weeks pregnant)

## Discussion

This study assessed the psychosocial experiences of pregnant adolescent girls in a rural district in Ghana using a qualitative phenomenological approach. The results of this study showed that pregnant adolescents encounter a lot of psychosocial challenges including physical, psychological, financial, and social. The interplay of these factors determines the outcome of pregnancy and the resultant health of adolescent girls. The news of being pregnant was received with mixed feelings. As some adolescent girls expressed sadness, anger, fear, and shock, others were excited about the pregnancy. Addressing adolescents' psychological burden is critical in their overall acceptance of pregnancy and the decision to keep it.<sup>29</sup> When adolescents choose to abort pregnancy, without using the required skill or asepsis it can lead to unwarranted influence on maternal health.<sup>30</sup> Therefore, it is imperative to institute measures to promote the psychological well-being of adolescents especially when they are reported to be pregnant. Not only does adolescent pregnancy influence maternal health but the general risk of suicide.<sup>29</sup>



Also, a good proportion of adolescent girls showed that their participation in social activities within the community was affected because they were pregnant. This could be a consequence of self-stigma warranting the need to institute measures to promote adolescents' understanding of their situation.<sup>31</sup> This finding is consistent with reports in developing countries that pregnant adolescents experience feelings of sadness, shame, and emotional disorder when they find out they are pregnant.<sup>32-34</sup> However, some of the participants were happy and excited about being pregnant. As reported in previous studies, it was indicated that some of the adolescent girls became pregnant intentionally to give birth to their boyfriends to prove their fertility and fidelity.<sup>35</sup> Addressing adolescent negative emotions concerning pregnancy is critical in improving psychological health as it appears that previous studies seem to suggest that regardless of family and spousal support all adolescents usually express distasteful emotions toward pregnancy.<sup>36-38</sup> Stigma is a reality associated with adolescent pregnancy which is identified as a burden. Becoming pregnant during adolescence interferes with how the adolescent in question relates to other people and the meaning attached to the pregnancy.<sup>35</sup>

As shown in previous studies, pregnant adolescents reported having felt sorry, sad, disappointed, shocked, and depressed after their pregnancies were confirmed.<sup>7,39,40</sup> Adolescent pregnancy creates a great challenge and is experienced as a traumatic situation. Pregnant adolescents' social experiences ranged from being rejected and neglected by family members, friends, and partners to having to drop out of school due to unplanned pregnancy. The Ghana Education Service Act in 2008, permits pregnant girls to be in school except for health reasons and must be readmitted if they apply after giving birth. In developing countries, adolescent pregnancy remains a key risk for dropping out of school among girls.<sup>41</sup>

Promoting adolescent health and increasing their access to socio-economic ventures is critical in improving their overall psychological health. This is important because this study like previous ones showed that younger age, poor social and family support systems, unstable or lack of marriage, inadequate health care facilities, and poor economic status have a bad influence on the overall health of adolescents.<sup>36,37</sup> Addressing adolescent socio-economic challenges is particularly important for stakeholders<sup>38</sup> in the Adaklu district because no known interventions focused on mitigating the economic impact of pregnancy on adolescent girls. Therefore, there is a need for robust and coordinated interventions to assess the overall influence of pregnancy on different facets of adolescents' lives while measures are implemented to address these identified challenges through intervention research.

The majority of the adolescents were ignorant about contraceptive use and the consequences of indulging in premarital unprotected sex. The engagement of premarital unprotected sex among adolescents has been reported

in previous studies as well.<sup>42,43</sup> In many African cultures communication on sexuality is considered taboo to the extent that sex is never discussed in the

home let alone with children.<sup>35,43</sup> Adolescents in most parts of the developing world are denied access to comprehensive sex education; therefore, making them know little or nothing about their sexual and reproductive health.<sup>44,45</sup> Lack of sexual and reproductive health information is another predisposing factor for adolescent pregnancy and early motherhood in developing countries.<sup>35,46</sup> The majority of adolescents who end up becoming pregnant lack information about contraceptives and emergency contraceptive use. It is important to note that adolescents' knowledge about contraceptives will help them overcome the feeling of ambivalence about managing their sexuality and sexual behavior. This is because it is recommended that providing factual information about pregnancy prevention for adolescents helps reduce the incidence of unwanted pregnancies.<sup>47</sup> In this current study, the participants' knowledge about contraceptives was poor. According to Population Services International a non-governmental organization, contraceptive use is often associated with casual sex and multiple partners therefore people may be stigmatized to use them even when they need to do so.<sup>48</sup> It is imperative to institute specifically tailored interventions to promote adolescent knowledge of sexuality, contraceptive use, and methods of preventing pregnancies. Also, research should be tailored to address the psychosocial concerns of pregnant adolescents especially those living in rural communities.

### *Reflexivity*

The interviews (conducted by nurses) were conducted and assisted by nurses and midwives working within the selected communities. Also, the processes of participant recruitment (conducted by caregivers in the study communities—nurses and midwives), and the resultant wide age gap that existed between the interviewers (minimum age of 37 years) with the participants could have influenced the level of adolescents' confidence in responses. Also, the fact that the interviewer and assistants wore the nurses' uniform during the sessions could have influenced the emotional state of the participants—leading to a situation called “white coat syndrome.” However, these were mitigated by interviewers interacting with participants causally and explaining issues of confidentiality and privacy to each participant. In addition, the extensive knowledge of the interviewer, transcribers and researchers regarding the study setting could have influenced their eventual interpretations of the study responses.

### *Strength and Weaknesses*

This study is one of the first to identify the psychosocial challenges of pregnant adolescent girls in Ghana, especially in a setting where the prevalence of teenage pregnancy is

relatively high. Inherent in the current study is the fact that we used an interview guide that was validated by the members of the research team only (3 people) and no external experts were used. However, each research team member had over 5 years of experience in qualitative research and in-depth interviews. Another important limitation is the fact that participants' ages ranged from 16 to 19 years—a considerable age very close to young adulthood. This could have influenced their eventual psychosocial experience and may not reflect the perspective of pregnant girls who are less than 15 years. Another important limitation of this study was its inability to report the exact time that adolescent girls figured out they were pregnant. This could have influenced the timing of antenatal care (and the related health education received), the psychological reaction, and the possible acceptance or otherwise of the pregnancy. We are optimistic that future studies in this area could explore an in-depth understanding of the age at which an adolescent identified she was pregnant, and how that influenced the psychosocial experiences.

## Conclusion

The results of this study showed that pregnant adolescents encountered a lot of psychosocial challenges ranging from physical, psychological, and social. The factors associated with an adolescent girl getting pregnant were ignorance, promise of marriage, lack of awareness, and interpersonal relationships with friends. One critical leverage used by adolescents to overcome the challenges associated with pregnancy was social, economic, and psychological support provided by parents, sexual partners, and other community members. It is therefore imperative that healthcare providers use targeted intervention to train, educate, and encourage continued and consistent contraceptive use to minimize unintended pregnancies. Given the psychosocial burden of adolescent pregnancy, education in the ANC should incorporate families and sexual partners, especially among adolescents to aid in increasing awareness of the challenges usually encountered. In addition, adolescents' social interaction was affected warranting nurses to encourage the use of adolescent-friendly services as much as possible to access reproductive health, especially during ANC. Consequently, future qualitative studies can explore the influence of self-stigma among pregnant adolescent girls and its related influence in seeking or obtaining appropriate care.

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## Authors contribution

Contributed significantly to the conception (ES, KDK, BD), study design (ES KDK), execution (ES), acquisition of data (ES), analysis and interpretation (ES, KDK, BD), Have drafted or written (ES, KDK, BD), or substantially revised the manuscript critically

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## Availability of Data and Materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

## Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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## Ethical Considerations

Permission to conduct the study was obtained from the Human Research Ethics Committee at the Ghana College of Nurses and the Ethics Committee of the Ghana Health Service. The study was done following the declaration of Helsinki and the guidelines stipulated by the institutional ethics committee. An arrangement was made with a counselor to provide support in case the process of data collection adversely affected any participant.

## Consent to Participate

Participants completed a consent form before the start of the interview. Parental permission was obtained for participants less than 18 years old. Interviews were recorded on audio tape but participants were not addressed by their names to ensure anonymity and confidentiality. Participation was voluntary.

## Consent for Publication

Not applicable.

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## Reporting Guidelines

The study adhered to the EQUATOR guidelines for the conduct of qualitative studies (COREQ).

## Supplemental Material

Supplemental material for this article is available online.

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