

Premenarchal Exam

### **Premenarchal Girls' Genital Examination Experiences**

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## **Abstract**

**Purpose:** To explore girls' experiences having an external genital examination during early adolescence.

**Methods:** Ten premenarchal girls were interviewed about their experiences receiving an external genital examination as part of a larger longitudinal study. Qualitative methods were used for analysis, looking for concepts based on themes and shared beliefs among the girls to create a model of the genital examination experience.

**Results:** Most participants could not remember ever having a genital examination before enrollment in the larger study. The examination was best characterized as “weird,” and many aspects of the examination were novel. Overall, genital examinations were not experienced negatively because of moderating factors like having support from mothers during the examination and having examiner preferences toward gender and personal characteristics. With repeated study examinations in the larger study and for those participants who reported their provider performed genital examinations, the examination was viewed as a skill for growing up or routine.

**Conclusions:** External genital examinations, although a new experience for many girls, can be experienced positively. Providers should address concerns about this important recommended examination and acknowledge that examiner attributes, mothers, and experience of having examinations all influence how genital examinations are experienced.

## **Implications and Contribution**

Few studies have investigated how healthy, younger adolescent girls experience an external genital examination. This article begins to describe this experience, providing both guidance on how to approach this examination with patients and more general insight into this unique developmental stage.

## Introduction

Given the scope of physical and psychological development during adolescence, routine comprehensive health care is important to assess both normal and abnormal development. The genitalia are a major site of development and are especially important to examine in young adolescent girls, as physical and physiological changes occur concurrently with sexual development during this time. Major professional organizations agree that external genital examinations are important during this phase and recommend genital examinations as part of preventative health care examinations [1], [2], [3].

Despite recommendations, genital examinations are not routinely performed in girls. In children younger than 10 years, girls receive genital examinations almost half as frequently as boys, with only 33% of 5–10-year-old girls receiving an examination and both sexes receiving fewer examinations with increasing age [4]. In addition, in a study of low-income, urban, adolescent girls aged 13–19 years old, most received their first pelvic examination only after sexual debut, with only half recalling a prior genital examination [5]. Thus, although considered a best practice, genital examinations are not routinely performed, and little is known about girls' experiences of genital examinations during this important developmental phase.

A limited number of studies show that adolescent girls' experiences of a genital examination are often negative. Anticipation of pain, embarrassment surrounding hygiene and undressing, and fear that an examination would be abnormal were identified as concerns surrounding pelvic examinations in one study of post-menarchal young women (mean age 17.3 years, most sexually active) [6]. Similar findings of fear of pain, discomfort having someone touch their genitals, and embarrassment about nudity have been found in other studies of older adolescent girls [7], [8], [9], [10].

Fewer studies have investigated girls' experiences of genital examinations during early adolescence. A study of girls attending a gynecology clinic found that 43% of girls aged 9–12 years experienced pain and 77% experienced anxiety during examinations [7]. Another study of 11–17-year-old subjects found younger ages had more negative examination experiences compared with older ages [11]. Finally, older adolescents with experience having a pelvic examination were found to have reservations about being examined in early adolescence: when asked about personal characteristics needed for a successful examination experience, 16–18-year-old participants listed both physical and emotional maturity as important [8]. Prior studies of adolescent girls' genital examination experiences primarily investigate pelvic examinations involving a speculum and include older adolescents who have completed puberty and are sexually active or younger adolescents with gynecologic concerns and anomalies. How a healthy girl in early puberty experiences an external examination is largely unknown. To address this issue, qualitative interviews were conducted with premenarchal girls in early puberty to explore how this important examination is experienced.

## Patients and Methods

Premenarchal participants enrolled in a study of peri-menarchal vulvar and vaginal microbiology were interviewed about their experiences of the external genital examination conducted as part of the study protocol. In this larger longitudinal study, female participants aged 10–12 years old have quarterly external genital examinations, with up to five labial and vaginal swabs and are enrolled for up to 4 years to follow vaginal microbiology throughout puberty. Participants may stop the examination and specimen collection at any point. Participants were positioned with their legs in stirrups and chose either the supine or semi-sitting position. Examinations were performed by female physicians, assisted by a female research coordinator, and typically

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accompanied by the girl's mother. To be enrolled, participants must not have any significant medical problems, be premenarchal, and have sexual maturity ratings of at least two (either breast development or pubic hair). Participants were recruited from ethnically diverse pediatric clinics in a large Midwestern city, referral by enrolled participants, or through advertisements in local newspapers. Participants provided written assent, and both parents provided written permission for participation in the larger study. This study was approved by the Indiana University-Purdue University Indianapolis-Indiana University Health Institutional Review Board.

On their first or a subsequent visit in the larger study, premenarchal participants were invited to be interviewed. All premenarchal participants were informed of the interviews (N = 21), 20 assented, and 10 were interviewed (several reasons for not participating despite assenting were identified and included schedule conflicts most often). Data collection occurred between April 2010 and February 2011. Participants received a \$15 gift card at the interview conclusion.

Qualitative methods explored attitudes surrounding the external genital examination. One face-to-face interview was conducted with each participant. The interview was semi-structured with 15 open-ended questions to explore the experience of having an external genital examination in the context of going through puberty. Interview lengths ranged from 23 to 50 minutes. Developmental considerations for syntax, vocabulary, and abstract thought ability were used when designing the interview guide. Two examples of considerations are as follows: pictures (Tanner stage drawings) were used for some questions, and storytelling was encouraged. After designing the initial interview guide, to ensure that the questions were understandable, practice interviews were performed with two girls (ages 11 and 12) not enrolled in the study to elicit feedback on the questions. Example questions included: (1) "Can you walk me through the exam and everything that happens?" and (2) "How do you feel about your mom being in the room?" When indicated, responses were clarified through follow-up questions to explore specific vocabulary and emotions during the examination.

The female physician performing the examination conducted the interviews in a private room immediately after the examination with the exception of one interview that was conducted in a private room at the participant's home approximately one week after the examination to accommodate her schedule. Interviews were audio recorded and then transcribed by the interviewer, and field notes were taken.

Analysis was conducted as data collection progressed, allowing early interview data and field notes to guide future interviews. The analytical approach was based on close readings by the first author, looking for concepts based on themes and shared beliefs held by social groups revealed through the textual interview data [12], [13]. Two levels of coding were used to identify concepts. Line by line index coding according to the participants' responses, literature review, and field notes were initially used to identify and define codes in the textual interview data. Examples of such codes include "being surprised" and "showing emotions." Through close rereading of the transcripts and organization of initial codes, consistent and significant codes were identified and their properties explored in subsequent interviews. If a code became infrequent or inconsistent through this analysis, attention was redirected to another code, allowing a group of focused codes to be identified. Out of these focused codes, concepts were defined. An example of a concept is "the exam is a novel experience." As with codes, properties of concepts were strengthened and explored in subsequent interviews. Finally, concepts were organized into a model to explain girls' experiences of genital examinations.

## Results

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Ten girls aged 10–12 years old were interviewed (Table 1). None reported any history of sexual abuse. For most participants, the study examination represented their first genital examination: three participants could remember receiving a genital examination from their primary care doctor before involvement in the study. Nine girls wanted their mother in the room for the examination. All participants were interviewed once, but after different lengths of involvement in the larger study: five were interviewed after their first examination in the larger study and five after a subsequent examination in that study.

Table 1: Participant Characteristics (N=10)

Characteristic	N or mean (range)
Age (years, N)	
10	6
11	3
12	1
SMR (mean, range)	
Breast development	2.2 (2–3)
Pubic hair	2.3 (2–3)
Ethnicity (N)	
Black	7
White	2
Hispanic	1
Parental custody (N)	
Maternal	7
Paternal	0
Both	3
Primary doctor gender (N)	
Male	0
Female	8
Unknown [a]	2

SMR=sexual maturity rating

a Unknown participants were unable to remember their last visit to a doctor

### *Genital examination experience model*

The genital examination was a new experience best characterized as “weird.” Participants who could remember receiving a genital examination from their primary care doctor and participants interviewed after a subsequent study examination normalized the experience and viewed the examination as a skill for growing up. Moderating influences on the examination were having mother in the room for support and having strong opinions about who should perform the examination (Figure 1). Notably, while the three participants with genital examination experiences before the study viewed the study examination as routine, they described the first examination from their primary care provider as novel. One participant contributed to the model by stating strong preferences about who should perform the examination and wanting her mother in the room, but viewed the genital examination strictly as part of being in a research study: “You guys are just researchers who want to know more about the kids' human body so that's (having a genital exam) OK for somebody wanting to do that” (10 years old, Participant 2)

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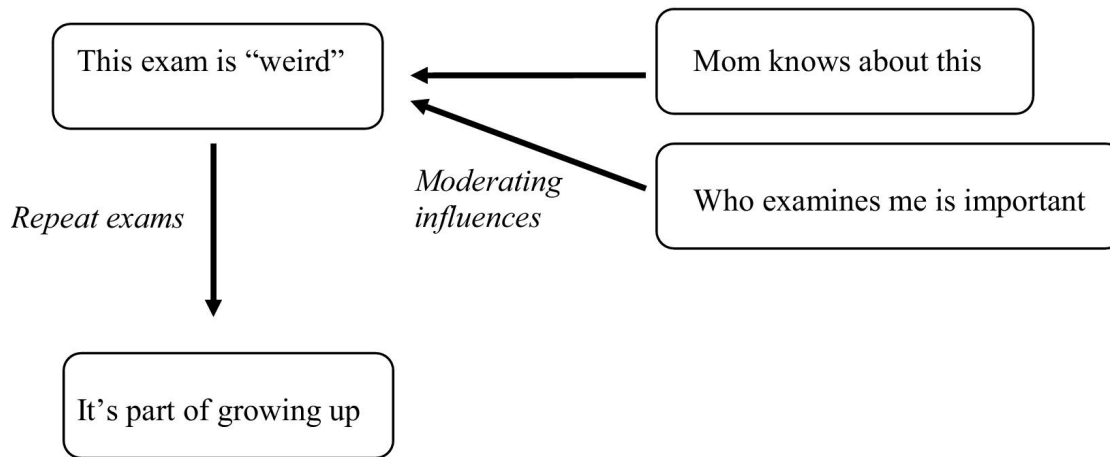


Figure 1: Genital Exam Experience Model

### *This examination is weird: being examined for the first time*

The novelty of the examination, as seven could not remember having such an examination before the study, was defined as weird. “At first it was kind of weird. But now ... it's just kind of different I guess? Weird is just like, I can't explain weird. But different is like not the same. But weird is like wow, I have never done this before” (12 years old, Participant 4).

Overcoming modesty was a salient aspect for many participants and another component of weird: “Well this [exam] over here, I've never had that done. This is my first time. Usually I just get shots and they look in my ears and my toes. I'm not used to people looking at my body parts” (10 years old, Participant 1). Another participant remembered being “a little nervous because I have never had nobody look down there before” (11 years old speaking about her first examination from her pediatrician, Participant 5).

When asked about having labial and vaginal swabs obtained (as part of the larger study), weird was also used to describe this feeling. This weird feeling was not associated with pain or significant discomfort, but was a “really different” sensation: “Like it didn't hurt that bad at all. It was like I was getting a shot with a little small needle, it didn't really hurt that bad it was just really weird and really different” (10 years old, Participant 3).

### *Having experience being examined*

All participants who had a genital examination before the study viewed the examination as routine: “You know when you like, when you checked my area down there? Well my doctor checked the same area to see if I was OK, so like that was the same thing and like it felt normal because it's happened before” (10 years old, Participant 6). Participants, both with and without genital examination experiences before the study, felt that genital examinations became easier with experience: “It was OK the first time, but then it got better” (10 years old speaking after her second examination, Participant 10).

Participants with examination experiences before the study were more knowledgeable about why examinations are important: “It like helps to know if you have an infection or something like that. It helps to know if everything is normal” (12 years old, Participant 4). These participants were also more familiar with examination indications: “I think it's important because if you don't look at it there might be something wrong and you want the doctor to help to get better before it

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gets too late and that's why the doctor should look at it and see what's going on and see if I am going through my, what do you call it, going through my order right or whatever, my age, the whole thing ..." (11 years old, Participant 5).

Participants not experienced with genital examinations before the study acknowledged that examinations were part of an adult medical visit and viewed the examination as practice for when they became older: "Well, if I have to do it when I get older why don't I just do it now ... because you are going to get used to it when you get older so like you are gradually going up to when you go all the way up" (11 years old, Participant 8). Another explained: "It gets you ready for when you are older and you have to do it. You have to do it when you are older ... Cause when you are like fully developed you have to go to the doctor and take these tests. My mom told me that. Cause if you just, when you are older and the doctor says you have to come in, it would be a surprise. And you could be nervous. Or shocked and scared. And with this examination it helps you not be as scared and be ready for it when you get older" (10 years old, Participant 9).

### *Mothers were important sources of support during the examination*

All participants were accompanied to the larger study by their mother, and nine of the ten participants wanted their mothers in the room for examinations for both support and because mothers were considered knowledgeable about the examination: "I felt more comfortable about that because, you see my mom would do something if something was going wrong. Like, she would have told y'all to do something and I wouldn't know about it because this was my first time trying it. My mom would know a lot more about it than I do" (11 years old, Participant 5). Although one participant did not want her mother in the room "because she makes a big deal out of things" (10 years old, Participant 3), she did ask that an older sister accompany her to her next visit for support during the examination.

Part of what made mothers knowledgeable about genital examinations was that the examination was a shared experience between mothers and daughters: "Like when I was a little kid she has done it before and now as grown up she's done it before so, it didn't really, you know, feel uncomfortable when she was there" (10 years old, Participant 6).

### *Examiner attributes exist*

Examiner attributes also played a role in the examination experience. All participants were opposed to the idea of a male physician performing the examination, citing fundamental differences between men and women: "Usually boys don't look at girls. It's usually the girls and girls and boys on boys and stuff because girls have different body parts than boys do. Like more body parts" (10 years old, Participant 9).

Inappropriateness, with many citing their young age, was another reason participants preferred a woman physician: "I just think it would be like weird and nasty. I think I am too young to have like a man check that part" (10 years old, Participant 6). Mothers appeared to influence this preference: "I would like a woman to be down there cause I will be more comfortable and I know my mommy wouldn't be happy either" (10 years old, Participant 1).

A few participants discussed examiner characteristics other than gender: "Because the first time I didn't really know you. But the second time I actually knew you. Because you don't want just anybody doing the swabs and stuff. You want to know what kind of person they are like. Them

being nice, helpful, saying nice things” (10 years old interviewed after her second examination, Participant 9).

### Discussion

Despite long-standing recommendations that genital examinations be performed routinely throughout childhood and adolescence, for most participants the study examination was the first examination they could recall. Appropriately, this examination was viewed as novel and weird. As an adjective, weird can have multiple meanings and was used frequently by many of the participants, as there were many dimensions of the examination that were new for them. Addressing weirdness may help lessen anticipation surrounding this examination, which will improve future care as well. Comfort with the examiner should also be explored, and concerns should be discussed. Importantly, mothers should be part of this discussion, both to share their own experiences with this examination and their own opinions of this examination, which appear to have a strong influence on daughters.

Our participants' views on genital examinations enforce several major professional organizations' recommendations and reasons for routine genital examinations in adolescent girls. The American Academy of Pediatrics (AAP) recommendations and Bright Futures guidelines for early adolescence (ages 11–14 years) state annual health supervision visits should include genital inspection as part of the complete physical examination to assess sexual maturity rating and for signs of sexually transmitted infections [3]. Particularly in those with prior examination experience, our participants appreciated these indications, also viewing them as important. The AAP also suggests that inclusion of this examination during routine visits allows normalization of this experience so that when gynecologic problems develop there is some familiarity with the examination and, ideally, emergent evaluation can occur in an office setting with a familiar provider [2]. Our participants who could recall receiving an examination from their pediatrician viewed the study examination as routine, supporting this recommendation. In addition, both those with and without prior examination experiences felt that repeated examinations improved and normalized the examination experience. Further investigation of this topic should explore providers' barriers toward performing this examination, not only to investigate why examinations are not performed but to describe their comfort performing examinations during this developmental phase. If providers are not comfortable performing this examination, it is unlikely girls will have positive examination experiences.

This is a small study of girls' experiences receiving a genital examination in a research setting where they were compensated for participation. However, given how few studies have been performed on this topic, especially in healthy girls, our findings begin to broaden our knowledge in this area. This study also investigates a specific and short developmental period, so findings may only be applicable to girls as they move through this period, a small proportion of adolescents. However, as all girls go through this developmental stage and given the multitude of physical changes during this time impacting the importance of genital examinations, this age is most salient in understanding the experience of first genital examination. Another potential limitation is that the examiner in the larger study also performed the interviews. In designing the study, we believed that having the examiner conduct the interviews would give the girls increased comfort in the discussion of potentially sensitive questions. Probing questions about negative experiences were built into the interviews both to ensure these experiences were explored by the interviewer and to let the participant know these experiences were safe to talk about. In addition, regular meetings were held with two mentors, one not involved in the larger study, throughout analysis to identify areas of potential bias.



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Primary care providers play an important role in providing a medical home for patients, and the genital examination is an important piece of routine care during early adolescence. This examination can be experienced positively when performed with consideration for developmental stage, biases and concerns about the examination, and recognition of family members influencing this examination. Allowing girls to have their preferences toward the examination heard and respected is important to allow moderation of the uniqueness of this examination. With such considerations, this important examination can be successfully performed routinely as recommended with a familiar provider in a comfortable setting.

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