"I Feel Like It's One of Those Things that Everyone Feels the Same Way About, No One Wants to Discuss It": A Qualitative Examination of Female College Students' Pap Smear Experience

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Abstract

The purpose of this study was to examine female college students' Pap smear experience and communication with their provider before, during, and after the exam. In fall 2019, 158 female college students completed an online survey with closed and open-ended questions. Open-ended responses from participants reporting a previous Pap smear (n=36) were qualitatively analyzed to generate themes to explain female college students' Pap smear experience and communication behavior with their provider before, during, and after the exam. The main themes identified included: *Uncomfortable*, *Low Patient Engagement*, *Provider Support*, and *Provider Trust*. Female college students overwhelmingly reported discomfort around the exam and were unaware of how to communicate with their provider; however, participants reported satisfaction with their care when the provider offered support and guidance. Findings suggest a need to develop strategies to address discomfort and enhance female college students' communication skills with providers concerning the Pap smear exam.

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Introduction

The Papanicolaou test (Pap smear) is a triannual examination recommended for women 21-65 years old (Sawaya et al., 2019; U.S. Preventive Services Task Force, 2018). Pap smears enable providers to monitor the cervix to determine if precancerous or cancerous cells are present and are intended to reduce the prevalence of cervical cancer (Bedell et al., 2020; Fontham et al. 2020). Although Pap smears are an important cervical cancer screening, not all women complete their screenings as recommended. Young women, particularly college-age women, have low cervical cancer screening rates. From 2005-2016, Pap smear rates declined from 62.8% to 47.3% among women aged 21-29 (Endeshaw et al., 2018; MacLaughlin et al., 2019). In 2019, 29.1% of women in the United States aged 21-29 were not up to date on their Pap smear (Suk et al., 2022). Ahmed et al. (2020) also found in their study that 62% of female college students (mean age 21.8 ± 3.5 years) did not have annual gynecological check-ups within the last year, and 69% had never received a Pap smear exam.

Although it is well established that Pap smear screening rates are low among college-age women, much of the literature assessing reproductive health in this population focuses on the knowledge, attitudes, and intention to receive an HPV vaccination (Horvath et al., 2018; Kamimura et al., 2018; You et al., 2020). HPV vaccination is another important measure for cervical cancer prevention, particularly for women who are not 21 years of age and within the recommended age range to begin Pap smear examinations. Considering the importance of HPV vaccination and regular completion of cervical cancer examinations, it is important to understand factors that influence cervical

cancer screening among young, college-age women, as regular screening should begin at age 21. HPV vaccines are 90% effective for protecting individuals from obtaining an infection (Wang et al., 2020), but female college students are at a higher risk of developing cervical cancer if they are unvaccinated. Engaging in unprotected sex can lead to contracting HPV, which is the leading cause of developing cervical cancer (Lukac et al., 2018; Siseho et al., 2022). Female college students are at-risk of contracting HPV, with the possibility of developing cervical cancer in the future, if their HPV is undetected and untreated, emphasizing the importance of cervical cancer screening in this population (Nuño et al., 2016).

One strategy to help address and improve cervical screening rates in this population is to increase provider communication with college-age women about the importance of Pap smears (Kim et al., 2018). To date, minimal research has explored clinical encounters regarding Pap smears between female college students and their provider. Notably, findings from Ackerson (2011) showed that the patient-provider interaction heavily influenced women's satisfaction with their care and determined future screening behavior, where dissatisfaction regarding communication with their provider made them less likely to continue seeking a Pap smear. However, limited studies have examined patient-provider communication regarding Pap smear screenings among female college students and how patient-provider communication can influence female college students' perception of their Pap smear experience. Limited qualitative research has been conducted in this area; therefore, our study aimed to add to the literature by qualitatively analyzing female college students' Pap smear experience and communication with their provider.

Methods

Data Collection and Recruitment

An 89-item online survey was distributed in Fall 2019 using SONA Systems®, a cloud-based research participant pool management system, at one large, public university in the southeastern United States. Participants included in the study were individuals who self-identified as female, had received a Pap smear, and were currently enrolled as a full-time college student. This paper serves as a sub-analysis of results from the larger study (n = 158) to determine qualitative themes related to the Pap smear experience from participants who reported receiving a Pap smear (n = 36). There were no statistically significant differences in race between participants who did not report receiving a Pap smear and those that did report receiving a Pap smear, $p > .05$. However, there was a statistically significant difference in mean age between participants who did not report receiving a Pap smear (M = 19.07 years) and those that did (M = 19.89 years), $t(154) = 4.257$, $p < .001$.

Participants were recruited through a post on the College of Communication and Information Science's SONA® website where students majoring in social science disciplines were eligible to view details pertaining to the study. Participation in the study was optional. Students received course-required research credit for completion of the survey. Interested participants read the informed consent information on the first page of the survey and were informed that clicking "next" and proceeding with the study would qualify as their acceptance of the informed consent information. Documentation of informed consent was waived for the study due to the research presenting no more than minimal risk to participants and the use of an online survey to collect participant responses. Approval from the IRB at The University of Alabama

was granted prior to survey distribution (EX-19-CM-250).

Measures

The larger, 89-item online survey contained closed- and open-ended items and scales to assess participant demographics, Pap smear experience-related information, Pap smear knowledge, communication apprehension, and willingness to communicate about health. Items with closed-ended responses used in this study included general demographic and Pap smear experience-related items (i.e., ever screened, reason for screening, intention for future screening). For this study, we qualitatively analyzed six open-ended items related to the Pap smear experience among participants who reported ever receiving a Pap smear exam. A total of 12 open-ended items were administered in the original survey, but only responses from six items were analyzed to understand the participants' Pap smear experience and communication with their provider. The six items that were omitted pertained to communication with family and friends about their Pap smear experience and were not relevant to the current study. Open-ended items were created to expand on previously asked questions and findings from other scholars (Sultana et al., 2015; Wood et al., 2018) related to Pap smears. All open-ended items analyzed in this study are presented in Table 1.

Table 1

Open-ended Items Used for the Qualitative Thematic Analysis.

Concept	Item
Comfort	"Was your Pap smear uncomfortable? What made it comfortable or uncomfortable?"
Communication with Provider	"Did you discuss how you felt before the exam? In the text box, please explain how your provider responded or why you did not say anything."
	"Did you discuss how you felt during the exam? In the text box, please explain how your provider responded or why you did not say anything."
	"Did you avoid asking the provider what they were doing during the Pap smear? If yes, why did you avoid asking?"
	"After the Pap smear, did you discuss how you felt with your provider? In the text box, please explain how your provider responded or why you did not say anything."
Pap Smear Intention	"Do you plan on having another Pap smear? Please explain why or why not."

Data Analysis

Descriptive statistics were calculated using SPSS Version 27 (IBM Corp. Armonk, NY, USA). Open-ended responses were analyzed in NVivo Version 12 (QSR International, Melbourne, Australia) using a qualitative thematic analysis approach (Miles et al., 2018). The two coders (NM and AW) created a codebook based on a review of participant responses, previous research (Sultana et al., 2015; Wood et al., 2018), and the open-ended items in the survey. The final codebook contained nine codes including "Pap Uncomfortable," "Provider Trust," and "Provider Communication." During thematic analysis, participant responses to the open-ended items were coded in NVivo using the codebook. Prior to individual coding, the two coders coded two participants' data together to check coder agreement, refine the codebook, and establish coding protocols. After paired coding, all remaining data were coded independently. Final coder agreement was 97%. Any disagreements following independent coding were discussed by the coders and resolved by the third author if necessary. After coding was completed, each researcher individually reviewed the data in each code and generated initial crosscutting themes. Themes were generated based on participants' responses, context of the open-ended questions, and findings in previous research (Sultana et al., 2015; Wood et al., 2018). Following individual coding, the authors met to compare initial themes and determine the final themes for the analysis. Once themes were identified, the authors defined the themes and selected illustrative quotes to represent the themes.

Results

Participants were predominantly white (n = 32; 88.9%). All participants reported that they identified as cis-gender female and heterosexual. Mean age was 19.89 years (SD = 1.21). Almost all reported seeking a Pap smear exam once per year (n = 32; 88.9%), and the most common reason for getting a Pap smear was to get on birth control or renew a birth control prescription (n = 18; 50%). An overwhelming majority of participants (n = 28; 77.8%) indicated they were extremely likely to visit their healthcare provider for a Pap smear exam in the future. Detailed demographic information is presented in Table 2.

Themes

Thematic analysis resulted in the identification of four themes associated with the Pap smear experience among female college students: 1) Uncomfortable; 2) Low Patient Engagement; 3) Provider Support; and 4) Provider Trust.

Uncomfortable. Many participants (n = 22) reported physical and psychological discomfort during their Pap smear, comprising the first key theme identified in the analysis, *Uncomfortable*. Physical discomfort was associated with the instrument used for the examination (e.g., speculum), which caused pain and felt cold. Psychological discomfort was associated with the feeling of being exposed during the examination and not being able to visually see the procedure. Commonly reported terms to describe psychological discomfort were "*scary," "awkward," "weird,"* and "*gross*." A subtheme was identified, where a few participants felt more awkward and more uncomfortable from having a male provider. The *uncomfortable* theme resulted in several sub-themes, which are presented in Table 3 with illustrative quotes. Physical responses pertained to tangible discomfort from the Pap smear instrument. Psychological responses were intangible feelings that the participants attempted to express in response to the Pap smear procedure. Broad statements with limited details related to physical and

psychological experiences with their Pap smear were labeled as indirect. Specific, well-detailed statements related to physical and psychological experiences were labeled as direct.

Low Patient Engagement. A majority of participants reported low patient engagement during their Pap smear exam (n = 18), resulting in the identification of the key theme, *Low Patient Engagement*. In this study, low patient engagement was reflected in the inability for the patient to engage with the provider during the appointment, including lack of comfort discussing the procedure with the provider or not knowing what types of questions were appropriate to ask. Overall, providers were more interactive during the encounters than patients, showcasing low patient engagement during the procedure. The participants reported not knowing what to ask and felt too uncomfortable to interact with their provider during the examination. For example, one participant noted, "*I wanted to leave quickly.*" When the provider attempted to interact with one patient, the participant mentioned, "*I tried to make jokes about it because of how uncomfortable the experience is.*" When given the opportunity to ask questions after their Pap smear, participants were still unable to formulate questions. One participant reported, *"I didn't say anything because it was the first time, so I had no questions about the experience."*

Table 2

Demographic Characteristics of the Sample (n = 36).

Demographic Characteristic	*n* (%)
Age	
18-19	15 (41.7%)
20-21	17 (47.2%)
22-24	3 (8.3%)
Race	
White	32 (88.9%)
Other	4 (11.1%)
Frequency of Pap smear	
Once a Year	32 (88.9%)
Once Every Two Years	3 (8.3%)
Once Every Three Years	1 (2.8%)
Primary Reason for Pap smear	
Get on birth control/renew prescription	18 (50%)
Currently/became sexually active	10 (27.8%)
Mother/female relative asked me to go	1 (2.8%)
Experiencing pain	5 (13.9%)
Other	2 (5.6%)

Note. Frequencies represent the valid percent. Participants were not required to answer all survey items. Some participants selected to not report demographic characteristic(s).

Table 3

Description of Sub-themes for the Theme, "Uncomfortable."

Sub-theme	Definition	Participant Responses
Sub-theme 1: Indirect Physical and Psychological Responses	Broad statements with limited details related to both physical and psychological experiences associated with the Pap smear examination	"*I didn't enjoy the experience."* (Physical) *"The feeling of it…the whole process."* (Physical) *"Just the idea of it."* (Psychological) *"Not the best feeling."* (Psychological)
Sub-theme 2: Direct Physical Response	Specific details about the physical response to the Pap smear examination, including physical discomfort or pain felt during the examination.	*"The clamp was scary and when they open it [speculum] up inside of you it hurts and then the swab poking the back of your insides is very uncomfortable as well. The only comforting thing was my Doctor talking to me trying to distract my mind."* *"I told her it was a little uncomfortable and she asked me if I wanted to stop. I said no."* *"The instruments used were uncomfortable."*
Sub-theme 3: Direct Psychological Responses	Specific details about the psychological response to the Pap smear examination, including discomfort, anxiety, and stress associated with the examination.	*"That you have sheet covering everything so you can't see."* *"Someone else seeing me naked."* *"It just feels uncomfortable because it's a feeling on a part of your body you can't visibly see."* *"Please don't make eye contact with my labia."* *"I did not really want to talk while she was up in my business."*
Sub-theme 4: Direct Physical and Psychological Responses	Specific details about both the physical and psychological responses to the Pap smear examination, combining both physical discomfort with psychological feelings.	*"It kind of hurt and its always uncomfy to let a stranger look at your vagina."* *"The whole process was uncomfortable for me and it hurt."* *"I was nervous simply because I know the pain and have gone through it a few times. My doctor always just says to relax."*
Sub-theme 5: Direct Psychological Responses from Having a Male Provider	Comments about psychological discomfort associated with having a male provider perform the Pap smear exam in addition to the other factors related to discomfort.	*"I had a male doctor and he made me feel like I was gross."* *"My doctor was a man and he shut the door and it was just me and him and he groped my leg to say hi when he first came in and it made me feel really uncomfortable."*

Provider Support. The third key theme identified in the qualitative analysis was, *Provider Support*, which was discussed by participants who had a positive encounter during the examination (n = 12). Provider support was associated with positive Pap smear experiences among participants and was illustrated by providers thoroughly explaining the procedure, using words of encouragement during the procedure, and acknowledging the patients' needs and questions throughout the exam. Participants reported a successful encounter when providers explained the importance and process of a Pap smear prior to the exam. Female college students expressed satisfaction with their provider's care when the provider gave step-by-step guidance and gradually checked in on their level of comfort during the exam. One participant felt appreciative that their provider offered clear directions, "*He told me step-by-step what he was doing and why and told me when it would hurt.*" When the doctor provided support throughout, the patient felt more comfortable despite experiencing pain, *"I really like my doctor and she made me feel comfortable the whole time, although it was not enjoyable."* Another participant felt supported when their provider acknowledged and fully responded to their question, *"She said I had great questions and told me exactly what would happen."* Conversely, participants reported disappointment in their providers for not providing enough support before and after their Pap smear, leading to dissatisfaction with their quality of care.

Provider Trust. The final key theme identified in thematic analysis was, *Provider Trust*, which was also associated with a positive Pap smear experience among participants (n = 7). Provider trust was not related to the actions taken by the provider during the examination but rather the provider's reputation, perceived experience, and bedside manner. Participants expressed higher levels of trust and satisfaction with providers that were professional, experienced, warm, and inviting. Professionalism was attributed to the provider's title and level of experience. One participant reported, "*I wasn't uncomfortable because I knew my doctor was a professional and this is what they do for a living, so I knew I had nothing to be worried about.*" Another participant noted, "*My doctor was very professional regarding the situation and completed it as quickly as possible.*" Others recognized that being uncomfortable was expected and that the provider is simply doing their job, "*It is her job and I did not feel as though my [discomfort] was uncommon.*" Several respondents were also more comfortable visiting a provider who assisted their family members. The sense of familiarity enabled the participants to trust the provider because they provided care to other family members. A combination of clear direction during the exam and previous experience with care of a family member led to an increase in trust. One participant noted, "*The doctor talked me through it, and he is the same doctor that my whole family has used.*"

Discussion

Findings from this study showed that female college students perceive Pap smear exams as uncomfortable, both physically and psychologically, and have low patient engagement. These findings have also been reported for women with a history of sexual abuse when seeking Pap smears, including discomfort from insertion of a speculum, feeling exposed, and having a male provider (Ackerson, 2012). Studies have shown success in improving comfort and adherence if patients collect a self-sample of cervical specimen for HPV testing purposes to send to providers (Goldstein et al., 2020; Masson, 2021). The findings from this study and previous research indicate that strategies should be implemented to increase patient

comfort during Pap smear exams. Additional research is needed to further explore factors associated with patient discomfort, determine strategies to improve patient comfort, and improve patient-provider communication. More research should be conducted on interpersonal communication between providers and patients regarding Pap smears to increase cervical cancer screenings, as one-on-one education can be an effective intervention (Community Preventive Services Task Force, 2021).

We also found that female college students were unable to effectively communicate with their provider due to their discomfort. In a study among Chinese immigrants, Seo and colleagues (2018) noted hesitancy to interact with providers due to discomfort and cultural values. Providers should use strategies to increase patient engagement during Pap smear exams, including cultural awareness, effective communication, and reassurance (Tratt et al., 2020). Additional research is needed to identify ways to reduce discomfort and encourage increased patient engagement during Pap smears for various patient populations.

Participants in our study identified increased comfort when providers communicated clear directions and offered support. In a previous qualitative investigation among female-to-male patients, researchers identified similar tactics to promote comfort, including thoroughly explaining Pap smear instruments and the process prior to the exam and providing emotional support throughout the exam (Potter et al., 2015). Future research should explore the use of these strategies amongst various populations to determine impact on patient comfort. Provider trust was another important component associated with a positive experience among participants in our study. In another study, adolescent and young adult women (12-24 years) trusted providers if they were good communicators and appeared knowledgeable about Pap smears and HPV (Kahn et al., 2001). Thus, provider trust may be an additional factor to consider when addressing patient comfort during Pap smears.

Additionally, concerns regarding the age and frequency of receiving a Pap smear among our participants should be denoted. Clinical guidelines recommend women begin cervical cancer screening at age 21 (American College of Obstetricians and Gynecologists, 2021; US Preventative Services Task Force, 2018). At least 41.7% of our participants who were 18-19 reported receiving a Pap smear, which is younger than the recommended age. In special circumstances, women are encouraged to have a Pap smear more routinely if they are considered to have a high risk of developing cervical cancer (US Preventative Services Task Force, 2018). High-risk patients are classified based on previous history of pre-cancer or cancer of the cervix, weakened immune system resulting from HIV, or an organ transplant (McDowell, 2020). We are unsure if our participants were considered high-risk; however, we assume that they were not since a majority of our participants (n = 18) reported they received a Pap smear to be prescribed or renew their prescription for birth control.

Also, another concern is the frequency of our participants receiving a Pap smear. A majority (n=32) stated they received a Pap smear every year. Perkins et al. (2021) reported updated guidelines from 2016 – 2020 stating patients should not receive an annual Pap smear if no history of abnormal cells is present and should instead receive a Pap smear every three years if they have a low or average risk for developing cervical cancer. Our findings are concerning due to the harm that is presented from frequent Pap smears among women who are younger than 21 and are not at a high-risk for having

cervical cancer. Therefore, we propose other researchers explore whether Pap smears are appropriately advised and administered by providers who offer gynecological services for female college students.

Limitations

Open-ended, written responses restricted participants from clarifying their remarks. An interview would have allowed researchers to ask clarifying questions. Most participants failed to ask their provider questions during their appointment, so we were unable to fully interpret this phenomenon. Recall bias is a cause for concern since we requested participants to reflect on their most recent Pap smear, and time since recent Pap smear may have varied by participant. Additionally, we were only able to analyze responses to the open-ended items from a small sub-sample of participants from the larger study, due to a small proportion of participants reporting receiving a Pap smear exam (n=36), leading to the potential for non-response bias. Data were collected from a sample of students at one large, public southeastern university, which limits transferability of the study findings to other groups. Future research should explore Pap smear perceptions and communication experiences among diverse samples of female college students to improve the transferability of the study findings to other groups of female college students and determine how Pap smear exam experiences compare to the findings reported in this study. Lastly, application of a health behavior theory did not inform the development of our study. However, future research should consider exploring female college students' Pap smear experience and communication with their provider using a theoretical framework to determine how theory may help explain this phenomenon.

Implications for Health Behavior Theory

Future theoretical research should consider exploring intrapersonal (i.e., attitude, self-efficacy) and interpersonal factors (i.e., subjective norms, support) associated with cervical cancer screening behavior in female college students. The exploration of individual factors may help identify ways to improve adherence and communication with providers (Kahn et al., 1999). Assessing subjective norms and support networks of female college students can help determine how referent others impact Pap smear screening behavior (Kahn et al., 1999; Roncancio et al., 2015). An increase in provider support may also serve as positive reinforcement and decrease anxiety. Future research studies should qualitatively explore the hesitancy among female college students' interaction with their providers during the examination. Doing so may help create strategies to decrease patients' apprehension and improve patient-provider relationships.

Discussion Questions

1. How can healthcare practitioners create a safe space for female college students to become more engaged during their Pap smear?
2. Although our study was not informed by a singular health behavior theory, the study findings have theoretical implications. How may future research in this area incorporate theory to better understand Pap smear screening behavior among female college students? What theoretical frameworks may be appropriate to further explore this issue?

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