

Addressing Anxiety and Fear during the Female Pelvic Examination

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Abstract

To review the anxiety and fear risk factors, pathophysiology, symptoms, screening and diagnosis while highlighting treatment considerations for women undergoing a pelvic examination. **Methods:** We reviewed the literature pertaining to anxiety and fear surrounding the pelvic examination to help guide health care providers’ on available screening options and to review options for individualized patient management. **Results:** Anxiety and fear are common before and during the pelvic examination. In fact, the pelvic exam is one of the most common anxiety-provoking medical procedures. This exam can provoke negative physical and emotional symptoms such as pain, discomfort, anxiety, fear, embarrassment, and irritability. These negative symptoms can interfere with preventative health screening compliance resulting in delayed or avoided care and significant health consequences. **Conclusion:** Assessing women for anxiety related to pelvic examinations may help decrease a delay or avoidance of examinations. Risk factor and symptom identification is also a key component in this. General anxiety questionnaires can help identify women with anxiety related to pelvic examinations. Strategies to reduce anxiety, fear and pain during a pelvic examination should routinely be implemented, particularly in women with high-risk factors or those identified with screening techniques as having anxiety, fear or pain with examinations. Treatment options should be targeted at understanding the patient’s concerns, starting conversations about pelvic examinations early, educating patient’s about the examination and offering the presence of a chaperone or support person. During an examination providers should ensure the patient is comfortable, negative phrases are avoided, the correct speculum size is utilized and proper lubrication, draping, dressing and positioning are performed. Treating underlying gynecologic or mental health conditions, consideration of cognitive behavioral therapy and complementary techniques such as lavender aromatherapy and music therapy should also be considered when appropriate.

Keywords

anxiety, fear, pelvic examination

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Introduction

The United States has observed a substantial decrease in cervical cancer deaths since routine screening for cervical cancer was implemented.¹ Screening for cervical cancer is completed by obtaining cervical cytology (Pap smear) and/or human papillomavirus (HPV) testing during a pelvic examination. Currently, most cases of cervical cancer occur in women who have not been adequately screened.² By completing Pap smear and HPV testing, early detection of cervical cancer can improve patient outcomes.

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Traditionally, a pelvic examination includes evaluation of the external and internal genitalia and the pelvic organs. Along with external visual inspection, a speculum exam is performed to evaluate the internal genitalia and collect a Pap smear.³ A Pap smear consists of using a spatula to circumferentially scrape the ectocervix followed by either an endocervical brush or broom that is inserted to the level of the external cervical os and rotated in order to collect endocervical cells. In this process, cells are obtained from the ectocervix and endocervix in order to evaluate the transformation zone or squamocolumnar junction, which is the area of greatest risk of neoplasia.⁴ Some liquid based Pap collection systems can use a single specimen for cytology and HPV testing, if warranted. With other systems, a separate HPV test specimen has to be obtained.⁵ Bimanual examination and abdominal examination can be performed to evaluate the pelvic organs. Occasionally, a rectovaginal examination may also be completed for further pelvic organ evaluation.³

Pelvic examinations are indicated in any individual with an acute genital or pelvic concern and for preventative health cares, such as Pap smear examinations. Traditionally, annual pelvic examinations and Pap smear were advised. In the United States, the national guideline groups continue to support pelvic examination in symptomatic or high risk women (ie, history of diethylstilbestrol exposure or gynecologic malignancy). However, there are conflicting recommendations about the utilization of routine pelvic examinations in asymptomatic or average risk women. Currently, most professional societies no longer advise annual pelvic examinations for asymptomatic patients unless cervical screening is due.³ This is based on the lack of evidence for health or cancer screening benefit with pelvic exams outside of cervical cancer screening in asymptomatic women.⁶ In 2018, The American College of Obstetricians and Gynecologists discontinued their recommendation for annual routine pelvic examination and advised that this be a part of the patient provider shared decision making discussion.⁷

Women commonly experience anxiety and fear before and during a pelvic examination. Understanding the cause of anxiety and fear is the first step in trying to alleviate those feelings. Anxiety or fear has been reported in 21%-64% of women.⁸⁻¹⁰ Yamikkerem and colleagues found that out of 433 women in an outpatient gynecology setting, more than half (54.8%) of women felt anxious or worried.⁹ Phumdoung and colleagues found 64% of women experienced anxiety and fear.^{8,10} Additional studies have reported women experiencing embarrassment of up to 52%, anxiety in 21%-49% and pain in 22%-68%.^{8,10}

Women's reluctance to attend gynecologic exams because of the examination's nature may result in delay or avoidance of gynecologic examination with potentially harmful health effects.¹¹ Routine gynecologic care is essential for maintaining good health as it is integral in the early detection and treatment of sexually transmitted diseases, pelvic infections, pathologic conditions, and cancer.¹²⁻¹⁴

Methods

We reviewed the literature pertaining to anxiety and fear surrounding the pelvic examination using Pub Med. We initially considered all articles within the last 10 years to be relevant but when our search results were found to be limited we expanded our search to include all previously published articles on the subject. Search terms included pain during pelvic examinations, anxiety with pelvic examinations, pain and anxiety with pelvic examinations and pelvic examinations. For each article the journal type and references were reviewed to ensure quality.

Risk Factors

Atkas and colleagues describe anxiety about pelvic examinations related to feelings of embarrassment, fear, pain and irritability.⁸ Patients can experience a sense of embarrassment in undressing, exposure of genitals and the self-consciousness of odor and cleanliness.^{12,8,11,15,16} Patients' fear can be due to the discovery of a pathologic condition, discomfort, pain, loss of control over their body, or discovery of information about their sexual practices.^{15,16} Several risk factors, both psychosocial and physical, can cause increased anxiety during a pelvic examination. Atkas, Lee and Kockbas described the gender of the provider as a risk factor for increased anxiety. Women who were examined by a female provider tended to have less anxiety.⁸ The patient's age can be another factor. Younger women are most at risk for anxiety, which may be due to limited sexual experiences and fewer pelvic examinations.^{12,15} Young patients may be more influenced by information from peers versus a medical provider.¹⁵ Factors such as having a previous exam that was a negative experience can also increase anxiety and fear.⁸ It is important to keep in mind that patients' religious beliefs may also be a factor.¹⁷ One of the most notable risk factors for anxiety and fear in patients is a history of exposure to trauma, such as sexual trauma, which may elicit memories of prior trauma.¹⁸

Pathophysiology and Symptoms

Research describes the different parts of the brain and pathways that likely play a role in anxiety's pathophysiology. Multiple studies have found that the amygdala plays an integral role in how anxiety is processed in the brain.¹⁹⁻²¹ The amygdala activates the fight or flight response releasing catecholamines into the body.²² The catecholamines, adrenaline and noradrenaline, stimulate the heart, lungs, and other metabolic effects.²² These changes in the brain may then cause the symptoms present in anxiety and fear.

Dopamine, another neurotransmitter and key catecholamine in the human brain, was also found to stimulate anxiety through various brain areas.¹⁹ Dopamine is found in other pathologic diseases such as Parkinson's and

schizophrenia. Dopamine works on the areas of cognition, emotions, pain, fear and anxiety.¹⁹

Other areas of the brain found to stimulate anxiety include the hippocampus, septum, insula, bed nucleus of the stria terminalis (BNST), and the prefrontal cortex.^{19,20} Thus, many brain and multiple catecholamine areas likely contribute to the pathophysiology of situational anxiety.

Multiple symptoms will be expressed in patients with anxiety during a pelvic examination.

The DSM V criteria for Specific Phobia describes anxiety as related to a specific object or situation.²⁰ Pelvic examinations can be one form of a particular situation or medical procedure that induces anxiety and fear. Specific phobia symptoms can be found under the diagnosis of panic attack/disorder.^{20,21} The DSM V symptoms for panic attack/disorder include: increased heart rate, palpitations, sweating, shaking, dyspnea, choking sensation, chest pain, nausea, lightheadedness, chills, paresthesia or fear of losing control.²¹ Anxiety and fear can also evoke a vasovagal response or expression of piloerection/goosebumps.^{20,21} Lastly, patients may exhibit avoidance behaviors by avoiding the situation of coming in for a pelvic examination.^{20,21}

Screening and Diagnosis

By understanding the pathophysiology of anxiety and risk factors for anxiety related to pelvic examinations, screenings can be implemented to provide a prompt diagnosis and allow for early intervention. Several validated patient assessment tools exist for specific medical situations, such as the Dental Anxiety Questionnaire, Cardiac Anxiety Questionnaire, Preoperative Anxiety Questionnaire, and Prostate Cancer-specific Anxiety Questionnaire.²³ Despite up to 64% of women experiencing anxiety or fear with pelvic examinations, there are no validated questionnaires directly related to anxiety regarding gynecological exams.¹⁰ The Women's Preventative Services Initiative (WPSI) has made a formal recommendation that all women and adolescent females be screened for anxiety. For non-pregnant adult women, the following validated anxiety screening tools are noted to serve as efficient screening tools to detect possible anxiety disorders: Patient Health Questionnaire-4 (PhQ-4), Hospital Anxiety and Depression Scale (HADS), GAD-7, Beck Anxiety Inventory (BAI) as well as the Kessler 10.^{24,25} The State Trait Anxiety Inventory is commonly used in research regarding anxiety in relation to gynecological exams and procedures. It has 2 scales with 1 (A-State) assessing for acute or state anxiety and (A-Trait) assessing overall anxiety.⁸ The GAD-7 was explicitly designed for use in primary care to detect generalized anxiety disorder but has also been relatively accurate in detecting panic, social anxiety, and post-traumatic stress disorders.²⁶

Another important consideration in screening for anxiety related to pelvic examinations is a history of sexual violence. Research shows that women who have a history of sexual

abuse have more significant pain, discomfort, distress, and fear during pelvic exams, with only 7.6% of those women sharing that history with their gynecology provider.^{6,27} The American College of Obstetricians and Gynecologists issued a Committee Opinion (Number 777) in 2019, recommending that women's healthcare providers should routinely screen for sexual assault and offered model screening protocols and questions to assist clinicians.¹⁶

In addition to formal anxiety assessment tools that can be used, a direct conversation about anxiety regarding the exam and thorough chart review can give the clinician an idea of whether their patient is at high risk of experiencing significant anxiety with their pelvic exam. Special attention should be paid to notes of previous pelvic examinations, mention of the history of childhood sexual abuse or adult sexual violence, a formal diagnosis of an anxiety disorder, especially PTSD, as well as scores on formalized anxiety assessment tools. In addition to the physical symptoms of anxiety listed in the DSM V, which were previously mentioned, the clinician should also observe for hand placement in the exam. Certain hand positions are highly correlated with a high level of anxiety including holding the assistant's hand, closing/covering the eyes, hands-on the shoulders, hands covering the pubic region, hands on the legs, hands holding the table, hands covering the forehead, hands on the abdomen, hands covering the breasts and hands under the head and supporting it.²⁸

Treatment

After identifying anxiety related to pelvic examinations, several techniques can reduce anxiety and fear before and during a pelvic exam. Understanding the patient's knowledge and concerns about the procedure as well as sources for obtaining this information can guide the discussion. Starting discussions about pelvic exams early, preferably during adolescence, may reduce anticipatory distress. Empowering women with education about pelvic exams can minimize embarrassment and create a non-threatening environment for knowledge sharing.²⁹ While the patient is still fully dressed, helpful strategies to reduce anxiety include explaining the procedure step by step, showing the speculum, and demonstrating the instrument's role.³⁰ Additionally, visual aids, such as pelvic images and models, can assist in patient education.

When the provider has competent skills to perform a pelvic exam, anxiety is reduced for both the clinician and the patient. Learners have reported an optimized training experience to develop these skills with standardized patients rather than a pelvic simulator, benefiting from real-time feedback.³¹ An experienced provider can effectively identify the correct speculum size, which may include a smaller instrument, and can minimize exam discomfort. Properly draping the patient can also effectively reduce the anxiety level.¹² In positioning the patient, the provider should be

mindful of verbal cues (ie, avoid “bed” and “stirrups” and instead use “table” and “foot rests”) to promote comfort and respect. A chaperone is another method for comfort during a pelvic exam.³² Chaperones can assist during the exam with supportive measures and other technicalities to facilitate an efficient experience for the patient. It has been reported that the presence of chaperones may be preferred by patients with male providers, although asking all patients their preference or universal use of a chaperone could be considered.³⁰ Having a support person, such as a family or friend, has also been reported to reduce anxiety.¹⁵

Reducing anxiety and fear surrounding a pelvic exam is multifactorial. It may involve treatment for other health conditions, including the following: genitourinary syndrome of menopause, vulvodynia, vaginismus, and mental health concerns (history of anxiety, depression, post-traumatic stress disorder, sexual trauma, or physical abuse). Provider education in trauma-informed care includes patient screening and identification of trauma, understanding health effects of trauma, and avoiding triggers.^{33,34} Patients undergoing a pelvic exam may have not disclosed this information before and feel that the clinician has created a safe, comfortable environment.^{33,34} Resources for treatment or return for care may be warranted and part of the process to completing a pelvic exam in trauma patients.^{33,34} A water-based lubricant can reduce pain with speculum insertion and has not consistently demonstrated unsatisfactory results in use with cytology specimens.³⁵ Medications, including topical vaginal estrogen or topical lidocaine, may also be helpful.^{30,36,37} Other beneficial treatment options to address distress include pelvic floor physical therapy, sometimes using vaginal dilators, and behavior strategies using cognitive behavioral therapy.³⁸ Complementary methods to reduce anxiety may consist of lavender aromatherapy, music therapy, and a dedicated pelvic exam gown. Underlying mental health concerns should be addressed and evaluated, including any nonpharmacological and pharmacological treatments.¹² It is common for multiple treatment options to be used to complete a pelvic exam and should be individualized to the patient.

Conclusion

Routine pelvic examinations are important for preventative health measures, early detection of cancer and sexually transmitted infections, and to address acute concerns.¹⁴ However, the pelvic examination can commonly provoke pain, discomfort, fear, embarrassment or anxiety. These factors can result in a reluctance to complete pelvic examinations causing delay or avoidance that can result in negative health effects.¹¹

Assessing women for anxiety related to pelvic examinations may help decrease a delay or avoidance of examinations. Risk factor identification is also a key component in this. Exposure to trauma, in particular sexual trauma,

increases the risk for some forms of cancer, such as cervical cancer.¹⁸ Individuals with a history of trauma are also more likely to have anxiety, fear or pain related to pelvic examinations. This reiterates the need for assessment of anxiety pertaining to examinations to prevent delay in screening. In addition to considering risk factors, general anxiety questionnaires can help identify women with anxiety related to pelvic examinations. There are currently no validated questionnaires directly related to anxiety regarding gynecologic examinations, however several routine anxiety screening questionnaires can be used.

Strategies to reduce anxiety, fear and pain during a pelvic examination should routinely be implemented, particularly in women with high-risk factors or those identified with screening techniques as having anxiety, fear or pain with examinations. This can allow for early patient education and implementation of strategies that can reduce discomfort and improve psychological stress related to pelvic examinations, ultimately leading to improved health outcomes. In conclusion, anxiety related to pelvic examinations is a very common issue that providers should be aware of, screen for and implement techniques to reduce anxiety in order to ultimately improve health outcomes.

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