Obstetrics-Gynecology Resident Attitudes and Perceptions About Chronic Pelvic Pain: A Targeted Needs Assessment to Aid Curriculum Development

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Abstract

Background Chronic pelvic pain (CPP) accounts for 10% of gynecologic visits and is a common complaint in university-based and community resident clinics. Resident education about CPP has been inconsistent, and review of the limited literature shows predominantly negative perceptions of patients with CPP. Current literature lacks information regarding obstetrics-gynecology residents' attitudes and acquired knowledge regarding CPP.

Objective This targeted needs assessment aims to identify regional obstetrics-gynecology resident attitudes and self-perceived knowledge regarding chronic pelvic pain in order to better address potential educational barriers and look toward placing a greater emphasis on this area in resident training.

Methods We conducted a focus group of obstetrics-gynecology residents to identify major themes regarding attitudes about CPP. This informed the development of a survey administered to university-based and community-based obstetrics-gynecology residents (N = 57) in the Colorado part of the Western Mountain Region. Cronbach α was calculated to determine reliability for each theme, and descriptive statistics were calculated for each theme. Independent samples *t* tests assessed differences between training levels and between university and community training sites.

Results Survey response rate was 72% (41 of 57). Residents consistently reported feeling overwhelmed by CPP patients, perceived a lack of time to see these patients, and indicated a desire to learn more in this area, but they varied in chosen learning methods. No significant differences were found between levels of training or training sites.

Conclusions Most obstetrics-gynecology residents surveyed believe they are inadequately prepared to address the needs of women presenting with CPP.

Editor's Note: The online version of this article contains the focus group guide and the survey developed and used in this study.

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Introduction

Chronic pain affects more than 100 million American adults, costing the nation nearly $635 billion annually in medical treatment and lost productivity.[1] The prevalence of chronic pelvic pain (CPP) in women ages 18 to 50 years accounts for approximately 10% of all general gynecologic visits and $22 billion annually.[2] CPP is a common complaint in university-based and community clinics, yet there are major knowledge gaps about pain for both health care providers and society at large. The Council on Resident Education in Obstetrics and Gynecology educational objectives (9th ed.) state numerous goals relating to evaluation and diagnosis of female pelvic pain,[3] yet residency education in this area has been inconsistent. Lack of knowledge can lead to physicians' frustration and possibly avoidance of addressing pelvic pain complaints from female patients.[4–6] Women who suffer from CPP may also worry that their medical and emotional needs may not be met by their health care providers, leading them to seek

care from multiple providers, thereby increasing health care costs.[7]

Anecdotal evidence and limited literature suggest that obstetrics-gynecology and general practice physicians and residents from varied regions and cultural backgrounds have predominantly negative perceptions of patients who seek care for CPP.[4–8] Current literature also supports the complex nature of diagnosis and potential clinical approaches required to address the needs of women afflicted with CPP.[9–12] Resident attitudes and perceptions may create barriers to interest in learning and compassionate treatment of these patients, and improvements in resident education in this area are needed. No studies to date specifically evaluate obstetrics-gynecology residents' attitudes and perceptions about CPP. When creating or revising curriculum, performing a targeted needs assessment is an integral step prior to developing appropriate goals and objectives.[13]

We report on obstetrics-gynecology residents' attitudes, self-perceived knowledge, and potential educational barriers regarding CPP that may be used to design curriculum to improve resident training in CPP.

What was known

Chronic pelvic pain (CPP) is a common complaint, yet resident education about caring for patients with CPP is inconsistent.

What is new

Assessment of obstetrics-gynecology residents' learning needs found a desire to learn more about treating patients with CPP, with residents preferring one-on-one clinic time or diagnostic algorithms for learning.

Limitations

Small sample size limits generalizability. Further validation of the survey instrument is needed.

Bottom line

Residency programs should identify ways to incorporate one-on-one and algorithm-based teaching approaches into training curricula.

Methods

We conducted our needs assessment in 2 phases. In phase 1, we held a focus group with 7 university-based obstetrics-gynecology residents (3 from postgraduate year [PGY]-1, 2 from PGY-2, and 1 each from PGY-3 and PGY-4) to identify and understand attitudes, perceptions, and challenges of seeing patients with CPP. The hour-long focus group was conducted during dedicated resident teaching time in June 2011 at the end of the academic year. We gave each resident an informed consent letter to explain the purpose of the focus group. Participation was voluntary. The focus group format was developed using Krueger's recommendations,[14] and it was digitally recorded and moderated by the primary researcher; an assistant moderator took notes describing participants' nonverbal behavior. The focus group guide is provided as online supplemental material.

The primary researcher and a second educator reviewed the transcription. The focus group data were examined using thematic analysis[15] to determine preliminary thematic categories. These categories were then refined using the constant comparative method[16] to examine both verbal and nonverbal responses. Sample quotes from focus group participants, including nonverbal behavior, are shown in TABLE 1. Primary themes resulting from thematic analysis and subsequent refinement with the constant comparative method are found in TABLE 2. The 8 themes identified were (1) negative attitudes toward patients or complaint of CPP, (2) lack of time, (3) desire to learn, (4) lack of confidence, (5) influence of mentor attitudes, (6) limited knowledge of pain medications, (7) commonality of CPP, and (8) empathy.

In phase 2, the 8 identified themes were used to design a quantitative survey (provided as online supplemental material) assessing the attitudes of a larger group of obstetrics-gynecology residents. Three to 5 statements were written to evaluate each major theme and assess reliability. For example, statements assessing the theme of Time included the following: (1) "I feel that I usually have enough time to adequately evaluate and treat a patient with pelvic pain"; (2) "I almost never have enough time to address all the needs of a woman seeing me for long-standing pelvic pain"; and (3) "My appointments often run late after seeing a woman complaining of pelvic pain." A 7-point Likert scale measured agreement with each statement (1 = strongly disagree, 7 = strongly agree). During statistical analysis, all point values were reversed for positively worded items so that a high score would indicate a strong negative attitude. For example, if a participant chose 7 to strongly agree with a statement about time, this rating would be recoded to 1 to reflect this resident's strong disagreement with the perception of lack of time. Statements from all 8 themes were scrambled in the final form of the survey. Additional survey items requested preferred learning methods and demographic information.

The resident coordinator of each program administered paper surveys during a resident's meeting in November following the focus group. The resident coordinator sent 2 follow-up e-mails with the attached survey to residents not at this meeting. The residents were instructed to complete the survey and return it to the coordinator, who e-mailed the primary researcher a de-identified copy to preserve confidentiality.

TABLE 1 **Example Quotes From the Focus Group**

Question 1		**What are some of the thoughts that go through your mind when you look on your clinic schedule or pick up a chart and see the chief complaint as "pelvic pain"?**
Participant	Body Language	Comments
E		Oh God! Great!
B		I hope my next patient no shows.
C	Patting chest; group laughing	Dammit!
Follow-up thoughts to that thought		
C	Arms crossed, animated, laughing	It wouldn't be so bad if we had an hour. We have 20 minutes and that's it. My theory is that it sucks for everyone, it sucks for me! During the day my clinic has difficult patients and it sucks for the patient because they will have me, who can't do a real detailed pelvic pain assessment, they will look for I pray that there will be something I can do, like, they have not had an ultrasound yet. It's how it is, you know.
Group	Laughs along	
B	Attentive	I hope that they've been seen and have had their initial assessment and you're just doing their meds for them.
C		Or just filling out their form
D	Nodding in agreement	
G		Or they are coming in to start on Vicodin or basically coming in for a refill and I'm not going to refill that.
E	Nodding in agreement	
Question 2		**How common a problem do you think chronic pelvic pain is?**
E		It's a chronic complaint in the ED, probably GYN concerns
B		I don't know data wise but it seems like quite a few patients, aren't coming in for that, but you do a review of systems and something always comes up. Like at some point, this patient has had pelvic pain.
C		Yeah!
D		And I think because it is a chronic problem you are seeing those patients a lot more often, so that we think it is probably higher numbers than it actually is.

Abbreviation: ED, emergency department; GYN, gynecology.

This educational study was exempted by the Colorado Multiple Institutional Review Board and approved by the St Joe's/Exempla Institutional Review Board.

SPSS software (IBM Corp, Armonk, NY) was used for all data analysis. Cronbach α was calculated to determine reliability for each theme. Descriptive statistics were calculated for each theme. Independent samples *t* tests assessed differences between training levels and between university and community training sites.

Results

Our survey response rate was 72% (41 of 57). As an initial step toward establishing the validity of these measures, Cronbach alpha was calculated using the survey items for each theme to verify reliability. Cronbach alpha ≥ 0.6 was selected as the criterion to establish reliability. Responses to statements from each theme demonstrated high or acceptable reliability ratings (Attitude $\alpha = 0.86$; Time $\alpha = 0.74$; Desire $\alpha = 0.83$; Confidence $\alpha = 0.77$; Mentor $\alpha = 0.67$; Pain medications $\alpha = 0.60$; Commonality $\alpha = 0.64$; and Empathy $\alpha = 0.73$).

Descriptive statistics were examined for each theme (TABLE 3). Residents demonstrated high mean scores on items measuring negative attitudes toward CPP patients as well as on items measuring feeling overwhelmed by CPP patients and the lack of time to see them. A low mean on the confidence scale indicated that residents perceived a lack of confidence in their own knowledge, and high scores on the desire scale suggested residents' high levels of desire to learn more in this area, but there was variation in preferred learning methods. Most residents preferred learning through one-on-one clinic time (n = 35) or the use of diagnostic algorithms (n = 34). Didactic lectures (n = 25) and computer modules (n = 23) were less preferred methods of learning about CPP, whereas case-based small groups (n = 16) and role-playing (n = 6) were least preferred by the residents.

Examining a series of independent samples *t* tests, no significant differences among training levels (ie, PGY-1 to

TABLE 2 **Eight Primary Themes Identified in Focus Group**

Theme	Key Word
Negative attitudes toward patient or complaint	Attitude
Perceived lack of time to see CPP patients	Time
Desire to increase knowledge about CPP	Desire
Perceived confidence in current knowledge	Confidence
Influence of attending attitudes	Mentor
Knowledge of pain medications	Pain Med
Perceptions of prevalence of CPP	Commonality
Feelings of empathy	Empathy

Abbreviation: CPP, chronic pelvic pain.

PGY-4) were observed, nor were there any significant differences between the university-based and community-based training sites in any of the themes. These results indicate uniformity of survey respondents regardless of program location or level of training.

Discussion

We examined obstetrics-gynecology resident attitudes and perceptions regarding patients with CPP. The focus group indicated 8 themes, including negative attitudes toward patients or complaint of CPP, lack of time, desire to learn, lack of confidence, influence of mentor attitudes, limited knowledge of pain medications, commonality of CPP, and empathy, that were most important to this group of obstetrics-gynecology residents. The reliability ratings for all of these themes were acceptable, and many themes demonstrated high reliability scores, showing strong consistency in resident survey responses. Residents also consistently reported feeling overwhelmed and perceived a lack of time to address patient needs. This may partially be related to the structure of obstetrics-gynecology resident clinic schedules, which have limited time allotted for each patient and no flexibility to schedule more time for a patient if needed. Continuity of care may also be restricted by clinic schedule structure.

Additionally, residents reported consistently negative attitudes regarding working with CPP patients. These attitudes may result from a combination of factors, including poor knowledge, lack of time, and complexity of patient needs, or possibly modeling behaviors of mentors, who were also perceived by residents as having negative attitudes toward this patient population. It could be assumed that advanced PGY training level or more experience with CPP might alter residents' attitudes or perceptions; however, study results showed the contrary. There was no difference between PGY levels in how the questions were answered. There was also no difference between university-based and community-based programs in any of the parameters measured.

Despite predominantly negative attitudes reported, survey participants uniformly desired to improve their CPP knowledge. Although their chosen methods of learning varied, most preferred one-on-one clinical teaching and diagnostic algorithms.

The last decade has brought new insights into chronic pain as a whole, and new approaches to diagnosing and

TABLE 3 **Descriptive Statistics of Primary Themes**[a]

Theme	Mean	Median	Mode	Standard Deviation	Range
Attitude (negative attitude toward patient or complaint)	5.451	5.333	5.33	0.918	3.50
Time (perceived lack of time to see CPP patients)	6.175	6.333	7.00	0.759	2.67
Desire (desire to increase knowledge of CPP)	5.533	5.750	6.00	1.023	6.00
Confidence (perceived confidence in current knowledge)	3.331	3.250	4.25	0.893	3.75
Mentor (influence of attending attitudes)	3.244	3.000	3.00	1.057	5.67
Pain Med (knowledge of pain medications for CPP)	4.770	4.750	4.75	0.795	3.75
Commonality (perception of prevalence of CPP)	5.065	5.000	4.33	0.807	3.00
Empathy (feelings of empathy for CPP patients)	3.671	3.667	3.33	0.940	4.00

Abbreviation: CPP, chronic pelvic pain.

[a] All statistics are summary data from responses to 7-point Likert items, where 7 indicated strong agreement and 1 indicated disagreement.

managing CPP specifically. Understanding the complex nature of this syndrome, which results from dysfunction and complex interactions between neurologic, musculoskeletal, and endocrine systems that are further influenced by behavioral and psychological factors, requires significant effort and study.[9–11] Curriculum development is needed to improve training on the care of CPP patients, and it should address the areas discussed in this study. As chronic pain is more prevalent in our society than all forms of cancer, diabetes, and heart disease combined,[1] more emphasis should be placed on improving obstetrics-gynecology residents' knowledge and understanding of chronic pain disorders.

Limitations of this study include a small sample size from a single state. Because most of our respondents were female, we were unable to assess any potential differences by sex. Although our response rate (72%) was good, PGY-2 and PGY-4 residents in university-based programs were somewhat underrepresented in comparison with PGY-1 and PGY-3 levels. The survey instrument could not be entirely validated because of limited sample size. Reliability was established, but further study is needed with a larger sample size to establish validity. Further evaluation of obstetrics-gynecology residents' attitudes and learning needs on a national level is warranted.

Conclusion

Most of the obstetrics-gynecology residents surveyed reported awareness of CPP as a common problem, and that they were inadequately prepared to address the needs of patients presenting with this complaint. They reported inadequate time to address the patients' needs, and a desire for improved knowledge and skills. One-on-one clinical teaching with an expert clinician and diagnostic algorithms were preferred learning methods.

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