



Primary Care Residents Want to Learn About the Patient-Centered Medical Home

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BACKGROUND AND OBJECTIVES: The patient-centered medical home (PCMH) is an important model of primary care with a promise of improving quality, reducing costs, and improving patient satisfaction. Many primary care residency programs have PCMH initiatives, but it is unclear if residents are interested in learning more about the PCMH. Our objective was to examine primary care residents' attitudes and knowledge about the PCMH model and how it relates to them.

METHODS: A total of 82 first- through third-year family medicine and internal medicine residents participated in a survey with 25 questions. Descriptive statistics were performed to describe the responses.

RESULTS: The survey response rate was 91%. Sixty-one percent of residents thought they had "poor" or "fair" knowledge of the PCMH, and 84% thought it was important to be knowledgeable about the PCMH. Thirty-four percent rated their ability to describe the PCMH as "well" or "very well." Eighty-six percent thought they learned "too little" or "way too little" about the PCMH during medical school. The majority (88%) of residents were interested in learning more about the PCMH.

CONCLUSIONS: Family and internal medicine residents are interested in learning more about the PCMH during residency. Residents may benefit from experiential learning that focuses on the PCMH.

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resident needs assessment to gauge resident baseline knowledge of PCMH principles and to guide our curriculum development.

Because it is unclear if students are learning about the PCMH during medical school, we were interested in learning whether residents were interested in learning about curricular opportunities during residency.⁵⁻⁷ The objective of this study was to describe family medicine residents' baseline attitudes and knowledge about the PCMH model and how it relates to their learning.

Methods

A total of 82 first- through third-year primary care residents completed a 10-minute survey with 25 questions. Participants were from two family medicine residency programs and one internal medicine residency program located in California. The programs were from two different teaching medical systems. Programs A and B included four cohorts, and programs C included three cohorts of residents. We adapted some questions from the literature⁵ and designed the survey as part of the initial step of a needs assessment for the development of a PCMH curriculum for family medicine residents. The survey questions assessed

The patient-centered medical home (PCMH) is an important model of primary care with a promise of improving quality, reducing costs, and enhancing patient satisfaction.^{1,2} Family medicine residency programs may have PCMH initiatives, but it is unclear if family medicine residents are actively participating in these important experiential learning opportunities. Medical schools and residency programs will need to both teach the scientific foundations of PCMH system performance and provide

opportunities for trainees to participate in team-based improvement of their real-world health systems.

The ACGME requires resident competencies in practice-based learning and improvement. Residency programs, including family medicine residencies, may be struggling with how to introduce residents to concepts of the PCMH within the context of current residency requirements.^{3,4} Responding to the need for rapid implementation of a PCMH curriculum in our traditional residency programs, we performed a

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Table 1: Participant Characteristics

Characteristic	Percent (%)	Frequency (n)
Program		
A	43.9%	36
B	28.0%	23
C	28.0%	23
Postgraduate year		
First	36.6%	30
Second	31.7%	26
Third	31.7%	26

residents' attitudes, perceived skills, and knowledge of the PCMH, in addition to interests in learning about the PCMH during residency. In program A, the survey was launched in January 2013 through electronic mail. Potential participants received up to three weekly email reminders about the survey participation. In programs B and C, the survey was administered during the first 10 minutes of didactic sessions and was collected by non-research staff. The programs did not have any PCMH curricula at baseline. Descriptive statistics were performed to describe the responses. The study was given human subjects exempt status by the UCLA Department for Protection of Human Subjects.

Results

The overall survey response rate was 91% (range 77% to 96%). Missing responses were <5% for those items with incomplete data. Sixty-three percent of residents thought they had "poor" or "fair" knowledge of the PCMH, and 87% thought it was important for them to be knowledgeable about the PCMH. Thirty-two percent rated their ability to describe the PCMH as "well" or "very well." Twenty-five percent of respondents were "well" or "very well" aware of interdisciplinary models of team-based primary care. When asked "How well are you able to describe a Plan Do Study Act (PDSA) rapid cycle?," 21% responded "well" or "very well" on a 4-point response

scale. Eighty-eight percent thought they learned "too little" or "way too little" about the PCMH during medical school. Eighty-one percent of respondents also indicated that they had "not at all" or "slightly" read books, journals, or other materials about the PCMH. The majority (86%) of residents were interested in learning more about the PCMH. Responses did not vary by survey administration mode or by specialty.

Discussion

This is the first study that we are aware of that assesses primary care residents' attitudes and knowledge about the PCMH. Our results indicate that primary care residents are interested in learning more about the PCMH during residency. Residents perceive that they did not learn enough during medical school and that they may benefit from learning experiences that focus on the PCMH during residency.

Our findings are important because they provide preliminary but important evidence to family medicine educators that residents are interested in learning about the PCMH and that they may often start residency with little knowledge about the PCMH. Our results validate a similar study of students from two medical schools on the East Coast.⁵

There are several potential next steps. First, family medicine and primary care residencies should consider a knowledge assessment to inform their PCMH curricular designs.

Residencies should also consider formal PCMH curricula and perhaps integrating them during practice management curriculum components or community medicine rotations. Many residency programs are likely to already have practice improvement efforts and patient-centered initiatives to enhance patient experiences with care. These clinical activities provide excellent opportunities for resident learning and possibly to enhance recruitment.⁸ Because of health care reform and the current redesign of primary care, residency programs are well positioned to organically involve residents in quality improvement efforts, committee work, and practice redesign efforts consistent with PCMH principles.⁹

This study has limitations. It is cross-sectional and relies on self reports that are subject to bias and socially desirable answers. The study was conducted in California and has a small sample size and cannot be generalized to other trainees or to other family medicine or internal medicine residency programs.

The practice of primary care demands scholarly inquiry, faculty training in practice improvement, analysis and innovation.¹⁰⁻¹² Primary care physicians are uniquely positioned to lead and implement health care delivery transformation consistent with the PCMH model. Family medicine and internal medicine residencies are still evolving in teaching these skills to residents. The results of this study have the capacity to inform the development of longitudinal PCMH curricula for family medicine and internal medicine residents.

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Table 2: Resident Attitudes and Knowledge of the Patient-Centered Medical Home (PCMH)

Questions and Response Options	Percent (%)	Frequency (n)
Attitudes about PCMH		
Resident physicians have the responsibility to learn about the PCMH model.		
Strongly disagree	2.4%	2
Disagree	1.2%	1
Uncertain	15.9%	13
Agree	51.2%	42
Strongly agree	29.3%	24
Resident physicians should be aware of the key principles of the PCMH model.		
Strongly disagree	1.2%	1
Disagree	0.0%	0
Uncertain	6.1%	5
Agree	61.0%	50
Strongly agree	31.7%	26
Do you feel knowledge of the PCMH is important to you as a resident?		
Not important at all	1.2%	1
Somewhat unimportant	4.9%	4
Neither important nor unimportant	4.9%	4
Somewhat important	32.8%	31
Very important	51.2%	42
Do you feel knowledge of the PCMH will be important to you post residency?		
Not important at all	0.0%	0
Somewhat unimportant	4.9%	4
Neither important nor unimportant	2.4%	2
Somewhat important	35.4%	29
Very important	57.3%	47
Knowledge about PCMH		
How well are you able to describe the PCMH?		
Not at all	18.3%	15
Not well	47.6%	39
Well	31.7%	26
Very well	2.4%	2
How would you assess your knowledge of a PCMH?		
Poor	29.3%	21
Fair	31.3%	28
Good	22.4%	18
Very good	11.9%	10
Excellent	3.0%	2

**Table 3: Resident Self-Rated Level of Confidence in Skills to Perform
Selected Patient-Centered Medical Home (PCMH) Activities**

	Not Confident (%)	Uncertain (%)	Somewhat Confident (%)	Totally Confident (%)
Coordinating care for patients with chronic conditions	6.3%	16.3%	71.3%	6.3%
Ability to lead primary care team	6.3%	31.3%	54.9%	7.5%
Leading a clinic team huddle	8.9%	34.2%	50.6%	6.3%
Leading a group visit for patients with diabetes or other chronic conditions	12.5%	25.0%	56.2%	6.3%
Using patient registries	21.5%	39.2%	36.8%	2.5%
Your ability to design quality improvement project	23.8%	33.8%	38.6%	3.8%
Conducting a PDSA rapid cycle	40.0%	31.8%	24.4%	3.8%
Putting together a team to conduct a PDSA rapid cycle	38.8%	37.5%	19.9%	3.8%

PDSA—Plan Do Study Act

Table 4: Resident Interests in Learning More About the Patient-Centered Medical Home (PCMH)

Questions and Response Options	Percent (%)	Frequency (n)
I learned about the PCMH model during medical school?		
Way too little	50.0%	39
Too little	35.9%	28
About right	12.8%	10
Too much	0.0%	0
Way too much	1.3%	1
I have read journal articles, books, or other materials on the PCMH?		
Not at all	41.8%	33
Slightly	35.4%	28
Moderately	15.2%	12
Very	5.1%	4
Extremely	2.5%	2
I am interested in learning more about the PCMH model during residency		
Not at all	1.3%	1
Slightly	10.1%	8
Moderately	35.4%	28
Very	27.8%	22
Extremely	25.3%	20

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