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# Perceptions of Becoming Personal Physicians within a Patient-Centered Medical Home

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## Abstract

**Objective:** Residency training is transforming how to teach residents about practicing as a personal physician in a Patient Centered Medical Home [PCMH], but little is known about how trainees experience these responsibilities.

**Methods:** This study used an online survey with open-ended questions to assess residents experiences with curricular innovations as part of learning to practice as physicians in a PCMH. The survey questions were distributed every six to 12 months. This analysis focuses on responses to a single question administered once, “What does being a personal physician working in a medical home mean to you?” Two independent researchers analyzed text responses using an immersion-crystallization approach. The full research team met to discuss emerging themes.

**Principal findings:** Sixty-two residents representing 78.6% of participating training programs responded to the online survey question that is the focus of this analysis. Overwhelmingly, resident respondents reported finding meaning in the humanistic and interpersonal aspects of medicine. In particular, residents reported that being a personal physician in a PCMH meant being the go-to person for patients’ healthcare needs. This included delivering patient-centered, continuous care in the context of a physician-patient relationship that broke down the traditional physician-patient hierarchy. Being a personal physician also included an important role for the physician and clinical team members in orchestrating the referral and care coordination process. To accomplish this, residents recognized that personal physicians needed to learn the art of practice.

**Conclusion:** Physicians trained in newly redesigned residencies understand and embrace their role and relationships with patients and health care teams that emerge as part of the PCMH. Residency redesign efforts can inculcate new family physicians with key practice ideals and knowledge about how to achieve these in practice.

**Keywords:** Graduate medical education; Patient centered medical home; Personalized physician

## Introduction

The allopathic and osteopathic primary care professional disciplines, including the American Academy of Family Physicians, the American Academy of Pediatrics, the American College of Physicians and the American Osteopathic Association, are committed to providing comprehensive primary care for children, youth and adults in a health care setting that facilitates partnerships between individual patients, their personal physicians, and when appropriate, the patient’s family via the Patient Centered Medical Home [PCMH] [1]. Within the PCMH, the term “personal physician” has been defined as a person with an ongoing patient relationship who is trained to provide first contact, continuous and comprehensive care [1]. With healthcare reforms continuing to move toward the PCMH [1-7], much research has focused on the potential benefits such an approach could make toward improving quality of care while containing costs [3-6]. The idea of being a personal physician and the need for educational redesign to address being a personal physician are not new. In 1926, Dr. Francis Peabody underscored the need for the good physician to know his/her patients completely, as in many cases both appropriate diagnosis and treatment can depend on a personal relationship between patients and physicians [8]. Similarly, in 1960, Dr. Fox [9] indicated that, “The more complex medicine becomes, the stronger are the reasons why everyone should have a personal doctor who will take continuous responsibility for him… the doctor treats people, not illnesses...”.

The role of the physician continues to expand in the current decade with additional physician directives as part of the PCMH movement, such as [1] leading a team of individuals who collectively take responsibility for the ongoing care of patients; [2] taking responsibility for all of the patient’s healthcare needs rather than just illness needs, such as providing preventive services and end of life care; [3] integrating care across all elements of complex health care systems and the patient’s community; and [4] providing care that is facilitated by registries, information technology, health information exchange and other means to assure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner [1]. With this movement, the types of competencies that physicians need within the context of PCMH are quite different from the competencies physicians have needed in the past.

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How do family medicine residents think about these new directives during training? As part of the Preparing the Personal Physician for Practice [P4] initiative [10] data were collected from residents about their experiences with innovative curricula that embodied principles of the PCMH, including training about becoming a personal physician. We conducted a qualitative analysis to understand how these physicians early in their careers consider the meaning of being a personal physician.

## Methods

### The P4 project

The P4 project is described in detail elsewhere [11-13]. Briefly, P4 is a comparative case series of innovative redesigns in residency training, such as changes in the length, structure, and composition of training designed to prepare family medicine residents for practice in PCMHs. Innovations include use of information technology in patient care, a focus on training in teams, and fewer hospital-based rotations in favor of more continuity clinic time to provide more clinical experiences in the care of patients over time.

Fourteen programs were selected that represented the best innovations as determined by a peer-review committee. The programs included broad geographic representation from rural, urban and suburban areas as well as community and/or university-based or administered programs. All programs participated in core data collection activities as part of the project, including annual surveys completed by all residents, the program director and medical director and/or clinic staff at continuity clinics. Oregon Health and Science University's Institutional Review Board [IRB #3788] reviewed study activities and granted the study an educational exemption.

### The online survey

The P4 online survey was specifically designed to collect qualitative data from P4 programs using a secure, web-accessible, survey application running on the Agency for Healthcare Research and Quality's [AHRQ] server. The customized software application was based on the commercial online survey product Checkbox [14] and ran on the Microsoft.Net framework [15]. The system provided flexible survey and questionnaire capabilities with email invitations and triggers, advanced logic and web services features with options to support online forms, evaluations and other functions.

Using this system, we disseminated four to five open-ended questions at six to nine-month intervals to assess the residents, program directors, and continuity clinic staffs reactions to clinical practice and training innovations they were implementing and testing. Responding to the online survey questions was voluntary and confidential. The system administrator at AHRQ assigned numeric codes to residents' responses to identify residents by residency program and program year. Only the P4 evaluation team could see survey responses [no one at the residents' sites, including other residents, staff, or directors and supervisors had access to the residents responses]. In the spring of 2010, one question directed to the residents was: "What does being a personal physician working in a medical home mean to you?" Our analysis focused on the responses to this question.

### Data management and analysis

The P4 Evaluation Team received de-identified data files. The online survey data files were imported into QSR International NVivo v.8.0 software [16]. All of the responses to the open-ended question of interest were stratified by program and year and analyzed by two members of the investigative team [authors EJF and SJR]. During a first immersion-crystallization cycle, the analysts independently read all of the data to identify emerging themes and met regularly to discuss patterns and develop a preliminary codebook. The codebook was revised and themes were refined during the second immersion-crystallization cycle until agreement was reached among the team [17,18]. At key intervals in the process, author PAC met with the analysts to review, independently audit and assess the face validity of the emerging findings.

We used quantitative data that we collected via resident surveys to compare the characteristics of respondents and non-respondents to the online survey question to assess potential sources of bias. Continuous variables, such as age, were analyzed using t-tests. Categorical data, such as gender, were analyzed using Chi square. All tests were two-tailed and alpha levels were set at 0.05. We used SPSS Statistics [18,19] for the statistical analysis.

## Results

Our analysis is based on 62 residents responses to the study question of interest and included residents from 11 of the 14 [78.6%] programs (Table 1) and across all program years [PGY1: n=23, PGY2: n=20; PGY3: n=19]. The 62 residents represented 18.2% of the total number of residents who received the online survey [n=341]. While the majority of respondents were female, white and PGY1 residents, these characteristics were not statistically different between responders and non-responders (Table 2). Similarly, there were no differences in marital or parental status, the proportion that undertook medical school in the U.S., the influence of P4 in their ranking of residency or overall satisfaction with their training programs.

Our qualitative analysis revealed that some PGY1 residents [n=3] indicated they were not yet clear on the meaning of the PCMH. For example, one resident wrote:

"I don't know yet, as I have not had the opportunity to experience this yet since I spend most of my time as an intern in the hospital." [Resident #10; Site D]

However, the majority of responding residents reported that they found meaning in the humanistic elements of being a personal physician. This included the interpersonal aspects of medicine, such as relationship-building, communication, trust and collaboration and was not limited to valuing the relationship with patients. Residents also found meaning in their relationships with other physicians and clinic staff.

| P4 Program | PGY1 n (%) | PGY2 n (%) | PGY3 n (%) | Total n (%) |
|---|---|---|---|---|
| Site A | 2 | 1 | 0 | 3 |
| Site B | 1 | 3 | 2 | 6 |
| Site C | 0 | 0 | 3 | 3 |
| Site D | 3 | 1 | 1 | 5 |
| Site E | 3 | 2 | 1 | 6 |
| Site F | 2 | 1 | 1 | 4 |
| Site G | 1 | 1 | 0 | 2 |
| Site H | 6 | 2 | 1 | 9 |
| Site I | 0 | 2 | 4 | 6 |
| Site J | 0 | 2 | 4 | 6 |
| Site K | 5 | 5 | 2 | 12 |
| Total by Year and Overall | 23 (38.3%) | 20 (33.3%) | 19 (31.7%) | 62 (100%) |

**Table 1:** Overall responses to online survey question by program and training year.

| Characteristics | Among Residents Who Contributed Online Survey Data (n=62) | Among Residents Who Did Not Contribute Online Survey Data (n=279) | p value |
|---|---|---|---|
| **Mean Age in Years (SD)** | 30.5 (5.0) | 31.1 (5.2) | 0.39 |
| **Gender** | | | |
| Male | 45.0% | 43.8% | 0.48 |
| Female | 55.0% | 56.2% | |
| **Race** | | | |
| White | 72.9% | 64.8% | 0.15 |
| Black | 5.1% | 10.1% | 0.17 |
| Asian/Pacific Islander | 15.3% | 17.4% | 0.43 |
| American Indian/Alaska Native | 1.7% | 1.0% | 0.53 |
| Other | 6.8% | 10.1% | 0.30 |
| **Ethnicity** (Hispanic Origin) | 10.2% | 6.7% | 0.25 |
| **Residency Program Year** | | | |
| PGY1 | 38.3% | 33.2% | 0.53 |
| PGY2 | 33.3% | 30.8% | |
| PGY3 | 31.7% | 32.2% | |
| **Marital Status** | | | |
| Single (never married) | 33.3% | 32.8% | 0.86 |
| Married/Partnered | 65.0% | 66.2% | |
| Divorced/Separated | 1.7% | 1.0% | |
| **Have Children** | | | |
| Yes | 30.0% | 36.7% | 0.20 |
| No | 70.0% | 63.3% | |
| **Attended Medical School in the U.S.** | | | |
| Yes | 78.3% | 70.3% | 0.14 |
| No | 21.7% | 29.7% | |
| **First Generation College Graduate** | | | |
| Yes | 23.3% | 23.7% | 0.55 |
| No | 76.7% | 76.3% | |
| **First Person in Family to become a Physician** | | | |
| Yes | 81.7% | 72.8% | 0.10 |
| No | 18.3% | 27.2% | |
| **Influenced by P[4] in Ranking this Program in the Match** | | | |
| No - was in program before P[4] | 28.3% | 40.8% | 0.31 |
| No - was neutral about P[4] | 25.0% | 21.6% | |
| Yes, P[4] was positive feature of program | 46.7% | 37.3% | |
| Yes, P[4] was negative feature of program | 0.0% | 0.3% | |
| **Overall, how satisfied are you with your residency training thus far?** | | | |
| Very unsatisfied | 3.4% | 4.5% | 0.88 |
| Somewhat unsatisfied | 5.1% | 4.5% | |
| Neutral | 10.2% | 7.0% | |
| Somewhat satisfied | 32.2% | 29.7% | |
| Very satisfied | 49.2% | 54.2% | |

**Table 2:** Characteristics of residents who contributed data to these analyses.

Residents identified three different but intertwined roles or activities associated with being personal physician (Table 3). First, they reported that being a personal physician in a medical home means being the go-to or point person for all of their patients healthcare needs. For example, one first year resident wrote:

"It means that the physician acts as the clearinghouse, gatekeeper and manager for all matters of a person's health and wellness: bio, psycho and social." [Resident #03, Site I]

This included the perspective that one's individual family doctor can provide for all of a patient's needs by serving as the patient's point-of-contact for referral recommendations and coordinating multidisciplinary health care services. While the response below suggests that the intent of providing personalized care has been present for a while, perhaps it has not been as effective as it can be now within the context of a PCMH, and with a team approach to care delivery.

"I have always felt that we were trying to do this all along; but to me it means being a headquarters for patient's health, offering a variety of services through interdisciplinary care, and creating an atmosphere that is welcoming and that no question or concern is too small or at all inconvenient." [emphasis added; Resident #98; Site K]

Entwined with being the point person for patients' healthcare needs, residents expressed views that being a personal physician in a PCMH meant delivering patient-centered care, including respecting patients' requests, responding to patient concerns in a timely and socially sensitive manner, and believing that patient needs come before medical or system priorities. Residents also reported that delivering patient-centered care requires working to understand the whole person when caring for patients and that continuity of care over time is a key element of being a personal physician. For example, one first year resident wrote:

"I want to have a panel of patients that I follow from birth to death while also caring for their family members. I want to provide their acute care, prenatal and obstetrics, disease management and end of life care. I want to be coordinating their care with specialists as necessary to be sure they receive the best care and have a single point of contact for questions and concerns" [Resident #13, Site B].

These prior quotes suggest that while family physicians in training see themselves as a single point of contact, they express the need for teams working together to provide all the care that patients need. The practice is the headquarters for care while the delivery is the responsibility of more than one person so that more can be accomplished.

As other resident responses across all years of training show, providing care that has continuity includes checking-in with the patient regularly when needed, seeing the patient over an extended period of time, and making themselves available to patients beyond the clinical setting, such as by telephone or email when needed. We found that some first year residents, in particular, spoke about continuity of care over time in conjunction with being the go-to person, as the prior example illustrates.

Residents reported that this level of communication and continuity of care results in patients [and physicians] feeling a greater connection to each other. This connection was described as 'rapport' by a number of residents. Rapport, at a minimum, means to them that the personal physician is responsible for developing a deep understanding with patients and at the maximum that this relationship could allow the personal physician to transcend the traditional hierarchy of physician-patient roles. For example, a PGY1 resident wrote: "I am enjoying getting to know patients' medical issues, social issues and getting to know their families." [Resident #28, Site G]

A second year resident wrote: "Making our patients feel that they can come to us with any problems they have including social issues." [Resident #64; Site F]

Rapport building is also important to the 'art of medicine.' A number of residents expressed feeling the need to learn skills and knowledge that would allow them to practice empathy and compassion for patients well beyond their physical health needs. This response occurred more prominently among PGY1 residents than it did among PGY2 and PGY3 residents: "Being a knowledgeable, competent physician who takes

| Theme/Subtheme | Definition | Exemplars |
|---|---|---|
| 1. Go To Person | Point person for all their patients' healthcare needs. | It means that the physician acts as the clearinghouse, gatekeeper and manager for all matters of a person's health and wellness: bio, psycho and social. |
| Patient-centeredness | Respect for patient needs comes before any medical or systematic priorities. | It means that I am a provider for a patient's every need and if I cannot provide that need I will guide the patient in the direction they will need to go, but always have a path for them to return to their medical home. |
| Longitudinal continuity of care | The same provider repeatedly seeing the same patients over a long period of time. | I want to have a panel of patients that I follow from birth to death while also caring for their family members. I want to provide their acute care, prenatal and obstetrics, disease management and end of life care. I want to be coordinating their care with specialists as necessary to be sure they receive the best care and have a single point of contact for questions and concerns. |
| Physician-patient relationship | Physician-patient rapport building and breaking down the traditional physician-patient hierarchy. | ...it means that there is a mutual commitment-The physician to the needs of the patient and the patient to that physician as their first and primary contact point for the address of these needs.<br>It means that I am not just seeing patients randomly but I am able to be their personal physician and able to follow up regularly and able to develop a good rapport to maintain good health, prevent illnesses, inculcate good living habits and preventive medicine care. |
| 2. Teamwork | Emphasis on helping and working with an interdisciplinary network of clinicians. | It means helping to coordinate multidisciplinary health care for any patient.... Family Physicians should be well equipped to help patients summarize their care plans, clarify all medication changes and guide future care. This requires, also, that the specialty physicians are timely with their clinic notes and forward these notes to the PCP. Patients are often not savvy enough to coordinate all this care on their own and many times they, and family members, are overwhelmed with managing their care. I've seen this many times, and within my own family, to know that Family Physicians need to be kept "in the loop," regarding their patients' care.<br>…allowing my patients access to seeing me developing an expectation that patient is cared for by a team of nurses, MA's, MD's working in a one-stop-shop that has labs, imaging, nursing, certain urgent care resources, DM educators, mental health, other specialists all in the same office. |
| Specialized patient care | Greater involvement in referral process, working closely with specialists, and improved PCP-specialist communications. | …They are part of a team (along side nurses, pharmacists, techs, therapists...). A medical home is not only a medical home for the patient but also for the doctor. It's not being part of a system that bounces you around to different offices..... It's a multidisciplinary approach to medicine.<br><br>Many times patients see multiple specialty physicians with no central "medical home." Because of this, patients and doctors risk mismanagement of medications, misinterpretation of information and poor quality care. |
| 3. Art | Learning the non-medical knowledge based characteristics of practice. | Personal physician means knowing the patient and family, pt feels they have a doctor they can trust and is familiar with their life story, joys, and challenges.<br><br>I am enjoying getting to know patients medical issues, social issues and getting to know their families. Making our patients feel that they can come to us with any problems they have including social issues...<br>Being a knowledgeable, competent physician who takes genuine interest in the care of one's patients working in an environment best equipped to help one accomplish excellent patient care. |

**Table 3:** Thematic interactions between main and sub themes.

genuine interest in the care of one's patients working in an environment best equipped to help one accomplish excellent patient care" [Resident #63, Site H].

" … A personal physician is one who sees the patient a majority of the time. The Physician knows the patient, and doesn't have to look in the chart to re-familiarize him or herself with the patient. The personal physician also does not see him or herself above the patient. They are part of a team [alongside nurses, pharmacists, techs, therapists"] [Resident #26; Site F].

Residents reported that teamwork and leading effective teams is a core task for the personal physician in the PCMH and has benefits for both patients and providers. A PGY2 resident wrote: "It means helping to coordinate multidisciplinary health care for any patient Family Physicians should be well equipped to help patients summarize their care plans, clarify all medication changes and guide future care. This requires, also, that the specialty physicians are timely with their clinic notes and forward these notes to the PCP [primary care physician]. Patients are often not savvy enough to coordinate all this care on their own and many times they, and family members, are overwhelmed with managing their care. I've seen this many times, and within my own family, to know that Family Physicians need to be kept "in the loop," regarding their patients' care." [Resident #80, Site B].

For some residents, the collaborative aspects of teamwork involved working with a network of interdisciplinary clinical staff, including but not limited to physicians, and making this interdisciplinary approach visible to patients by: "allowing my patients access to seeing me, developing an expectation that patient is cared for by a team of nurses, MA's, MD's…DM educators, mental health, other specialists all in the same office." [Resident #80, Site B].

## Discussion

This study is the first to report on the reactions of residents who are experiencing newly redesigned curricula focusing on the PCMH. Findings from our analyses indicate that for residents the term "personal physician" connotes an ongoing relationship with a physician trained to

provide first contact, continuous and comprehensive care that expands well beyond their physical needs to social and environmental contexts. These are ideals that residents appear to fully embrace, just as their well known predecessors Drs. Peabody and Fox did decades ago, though residents' responses suggest this may be easier to do within the context of Patient Centered Medical Homes. Not surprisingly, evolutions in medicine and health care systems may make the personal physicians' relationships with or perceptions of patients more complex than prior conceptualizations, and it may be that today's residents understand the importance of this vital relationship earlier during their training than has occurred in the past, though this is impossible to confirm as so little research has been published on this topic.

The residents we heard from reported an understanding of the meaning of the personal physician consistent with the definition set out in the Joint Principles [1]. Residents understood the personal physician to be the point person for patients' healthcare needs, and this required working as a team to coordinate and integrate care for patients, and getting to know patients over time. Residents' responses regarding what it means to be a "personal physician working in a medical home" also centered on the themes of "Physician-patient relationship" and "Art of medicine." The strength of this finding may indicate that these themes are important to any resident learning to hone their patient care skills, regardless of being involved in P$^4$. It may also indicate that residents involved in P$^4$ training are either bringing these qualities of rapport building, compassion, trust and caring into their development as a personal physician or they are learning them from the P$^4$ curriculum.

Our findings are consistent with another qualitative study conducted in Canada. Beaulieu and colleagues [20] conducted a focus group study of French, Belgian and Canadian family medicine residents during the last year of training and found that key features of practice were the relationship built over time between the patient and physician; the capacity to take care of a variety of problems at the primary care level; and integration and coordination of the patient's care needs. Further, the scope of practice was further defined as being a first responder to the patient's complaints and coordinating and integrating the patient's care as well as considering the contextual issues of health and illness, such as familial, social and economic issues.

Interestingly, we found in our study that residents placed little to no emphasis on the role of information technology, registries and other systems that might be needed to assure that patients' healthcare needs get met in a timely way. This may reflect an emphasis that these residency programs place on interpersonal relations and/or a potential deficit in training residents to be systems thinkers capable of devising systems of care and using tools that support the care process. Alternatively, residents may be trained in systems approaches to care delivery, but not see this central to the meaning of being a personal physician, especially as it relates to their relationships with patients.

Some features related to the medical home were absent in these residents' reflections. For example, while quality of care was mentioned, safety was not. This may be because the residents are early enough in their careers to not have experienced medical errors or close calls. Also, they might not feel confident to write about this issue using an online survey. Another area not noted by residents was enhanced access and payment reform. Residents typically have little to do with setting clinic hours and billing, and in many cases, are so consumed with learning clinical skills that they may give less importance to practice management topics that are offered in residency curricula. In addition, residents, especially PGY1s and PGY2s, possibly have not had enough clinical experience to recognize access or payment issues.

We also expected to see more reflections or insights on adopting PCMH principles in this analysis, such as how enhanced access and differing patient communication mechanisms affect workload. However, we now believe this didn't occur because residents are not at a stage in their development where they can reflect on these changes. It is much more likely that faculty practicing in clinic settings undergoing PCMH transformation would identify these issues rather than residents. To the residents, what they are experiencing is simply the reality in which practice now occurs, as they are not familiar with the previous ways of doing things.

Strengths of this study include our use of an online survey designed specifically to collect qualitative information from residents participating in cutting-edge P$^4$ programs dispersed across the country. Another strength is the use of a standardized open-ended question that elicited residents' perspectives on being a personal physician within the context of the PCMH. Finally, this study includes residents' perspectives on training and emerging understanding of the PCMC. This is an understudied area in a rapidly changing field that is vitally important to understanding how to support the training needs of future physicians in the context of major practice transformation.

Limitations of the study include that the overall response rate was low, though nearly 80% of programs and all program years were represented in the data. The demographic characteristics of responders and non-responders were similar, which suggests that bias based on certain participant characteristics did not influence our findings. However, we cannot measure the extent to which our sample of responders represent "early adopters" of employing PCMH concepts into practice, which could represent an unmeasured bias in our study. Providing responses to the online survey was not mandatory, which may explain the low response rate. In addition, our analysis focused on text responses to a single open-ended question. Gaining access to the online survey was challenging for some sites [n=3], which necessitated that they be excluded from this study. Internal computer security systems may have played a role in this. In addition, residents' responses were sometimes brief, often including phrases or a few short sentences. The brevity in responses likely reflects the multiple clinical and administrative demands of training, with answering optional online questions low on a resident's list of priorities. Despite this, we saw stability across residents' perspectives as they undertake redesigned training.

In conclusion, these P$^4$ family medicine residents, training in programs engaged in redesigning training for new models of practice, revealed an understanding that being a personal physician entails relationship development that includes the PCMH features of team-based care, responsibility for all of the patient's health care needs and coordinating and integrating care both within a complex health system and in social and familial environments. Care that is facilitated by information technology and management was not identified as a feature of personal doctoring. How these new practice features help or hinder being a great personal physician is uncertain to these residents, which will be important to consider in further research.

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