SPECIAL COMMUNICATION

Preparing the Personal Physician for Practice (P^4): Essential Skills for New Family Physicians and How Residency Programs May Provide Them

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Family Medicine residency programs must change substantially to prepare for new family physicians a model of practice for the 21st century. This article describes 10 essential skills that are part of a new model of family medicine and the educational changes and resources needed to obtain them. These skills include management of a population of patients, patient-centered care, personal medical home, best knowledge at the point of care, continuous access to multimodal communication, a new platform of care, time intensive visits, group visits, teamwork and interpersonal skills, and financial practice management. (J Am Board Fam Med 2007;20:348–355.)

There is an imperative for change in the process of how family medicine is delivered. A New Model of Family Medicine[1] is ready to be used in the experimentation, application, and education of a new generation of family physicians. The hard part will be changing practices and residency programs to achieve much higher levels of both service and outcome quality. The tools of health information technology are available and rapidly improving. Quality improvement methods from many industries demonstrate how service processes can be delivered with great safety and consistent best practices. Medicine is on verge of a major process transformation,[2,3] and the challenge for family medicine is to be a specialty leading change rather than a vestige of the past.

TransforMED was formed by the American Academy of Family Physicians to be a catalyst for the New Model of Family Medicine. The first National Demonstration Project of TransforMED consists of 36 practices throughout the United States randomized equally into an intervention group with professional facilitation and a self-directed group. The second National Demonstration Project is for residency programs to embrace the transformation process through the Preparing Personal Physicians for Practice (P^4) project. This article describes the essential skills that new family physicians must have to succeed in the transformed practice setting, and what residency programs must do (ie, change) to provide these skills to their residents. A portrait is presented with the professional life of the new personal family physician and a new weekly schedule for residents.

Family medicine is moving into uncharted territory during this transformation process. The skills described here are a best estimate of what will be important. Through this evolutionary process of change, new skills and priorities are likely to emerge. New technologies will automate, customize, and personalize high-quality patient care. New methods of training residents will better prepare graduates for a practice environment that is part of this new century of progress in medicine. What is described here is the starting point of residency programs' journey into the future.

Ten skills are highlighted and include suggestions as to how residency programs can provide them. These skills and educational methods form a

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The URL for the P^4 project is: http://www.transformed.com//p4.cfm.

framework for the P^4 project. The portrait of the new personal family physician provides an exciting challenge for residency programs to create a new context for education. Family medicine must return to being the centerpiece of the residency experience rather than being a part-time duty as residents focus on a series of block rotations. The visionary efforts behind this new project will have an impact similar to the original requirements for the family medicine residency training developed almost 40 years ago.

Skill 1. Management of a Population of Patients

Family physicians serve as personal physicians to a population of patients. Residents are given a patient population to care for (usually approximately 200 patients or 50 families) at the start of residency. This number increases during the residency to approximately 800 patients or 200 families. Residents take primary responsibility in managing these patients, a role similar to that which they will perform in later practice with a panel of approximately 1500 to 2000 patients. For the past 35 years, residents have been in clinics for limited hours each week and care for their patients one at a time, with breaks in continuity of care more the norm than the exception. Care occurred only during visits, except for the occasional telephone call following up on a test. This visit-dependent model of primary care results in marginal health care outcomes from a population analysis.[2,4,5]

The new model of family medicine calls for family physicians to manage both the population of patients as a whole as well as the individual patient. New family physicians are proactive in reaching out to patients to achieve high levels of preventive services and chronic illness management. They have the tools to provide this care in a continuous way and receive incentive through pay for performance reimbursement based on achieving high levels of successful care to populations of patients.

What Residency Programs Can Do to Achieve This Skill

All residents should be electronically connected to a list of their patients at the start of residency, with ready access to the patients' health records and an ability to audit the records for targeted care outcomes. This resident–patient panel should be updated as the practice grows. Residents will be expected to maintain their "Inbox" of patient care needs both in and out of clinic time and while on various block rotations. Residents will receive regular reports of their performance in caring for their population of patients and have the ability to self-audit their practices. All productive interactions with patients should be measured (visits, telephone contact, and online communication) as a reflection of resident productivity. Group visits and group online communication will be available.

Resources Needed

Needed are electronic health records with a registry function accessible from any computer inside of the health system. The residency program has continuity of care and patient management policies that support population management.

Skill 2. Patient-centered Care

The traditional paternalistic model of the patient–physician relationship is replaced with patient-centered care, in which patients are taking an active role in their health and health care. With patient-centered care, physicians serve their patients with continuous respect for the patient's autonomy and self-control. Personal family physicians are advisors and caregivers on the patient's terms whenever possible. There are times when a physician must step in and assertively provide patient care, such as in medical emergencies and with major illnesses, but this is always done with the utmost respect for the patient's needs and desires. The practice has a patient-centered and relationship-oriented culture that emphasizes the importance of meeting patients' needs and reaffirms that the fundamental basis for health care is "people taking care of people."[1]

What Residency Programs Can Do to Achieve This Skill

A statement of practice philosophy for the program should embody patient-centered care, with this statement made highly visible in all materials relating to the residency practice. Most importantly, this philosophy of patient-centered care should be practiced by all faculty, residents, and staff. Patient care discussion groups, such as Balint groups, will be held regularly to facilitate discussion, learning, and growth of patient-centered care. Input from

patients will be obtained regularly, and patients will have continuous access to their records and communication with the practice, ensuring that their needs are being addressed. All patients will receive care that is culturally and linguistically appropriate.

Resources Needed

Policies that support patient-centered care. Open access to communication between patients and their personal physicians and care team. Training for faculty, residents, and staff in a service model of culturally competent patient-centered care. Recognition for excellence in providing patient-centered care.

Skill 3. Personal Medical Home

The residency practice serves as a personal medical home for each patient, ensuring access to comprehensive, integrated care through an ongoing relationship.[1] A traditional concept of the personal family physician is one of being a member of the patient's extended family. This substantive role deteriorates with breaks in continuity of care. New online communication methods allow for a continuous connection between the family and a resident physician (Skill 5). The basket of services provided by the program becomes a home for health care to the population being served. Patients feel connected and have a sense of ownership of all the resources available for their care. The personal family physician is the steward for the patient and family in this medical home.

Home implies a place, and the medical office is designed to be a personal medical home for patients. However, for many patients, the office is not their primary medical home. Their own home and their workplace are where they live with their health and illness every day. The personal medical home reaches out electronically to patients wherever they are as a virtual medical home. Patients have a "homepage" electronically connected with the medical practice that is able to provide many of their health care needs. This electronic connection is rich with services, as described in Skill 6.

What Residency Programs Can Do to Achieve This Skill

A redesign of patient care settings to become a personal medical home is necessary. The waiting room will be replaced by a "medical home resource room," where patients can update their personal information and obtain guided access to medical information. Preserving what is necessary for good clinical care, the office should have an atmosphere that makes patients feel at home. More importantly, the practice should have an advanced information system that allows patients to be connected with their personal health records and to the virtual medical home of the practice. Residents as personal physicians can interact with their patients continuously through this electronic platform of care.

Resources Needed

Office redesign using the principles of patient-centered care and a personal medical home. Advanced information systems with a virtual medical home for all patients. Policies that keep the residents continuously active in the virtual medical home with their patients.

Skill 4. Best Knowledge at the Point of Care

Family physicians should use the best scientific knowledge in the care of their patients. Family physicians are committed to evidence-based medicine and have the skills to evaluate the quality of medical information. Residents develop this evidence-based philosophy of care from the very beginning of the program, taking advantage of the low patient volume both in clinic schedules and in the overall population of patients served.

Because the complexity of modern medicine exceeds the inherent limitation of an unaided human mind, knowledge management and clinical decision support tools are used routinely at the point of care. Patients consistently receive the best available clinical care.

Currently, access to the best knowledge at the point of care is the goal. Soon, best knowledge will be imbedded into the electronic record and will help guide patient care. Increasingly, some routine care will be automated for the patient to receive best practices on request.

What Residency Programs Can Do To Achieve This Skill

All residency programs should make a commitment to a culture of evidence-based clinical practice, and all providers should demonstrate this. Faculty supervisors will ensure that residents practice evidence-based medicine at all times, supported by

advanced information resources available at the point of care. Decision making "off the top of the head" will be discouraged.

Resources Needed

Clinical decision support tools that promote evidence-based practice available at the point of care. Increasingly, clinical decision support is imbedded into the electronic health record to guide excellence in patient care. A relationship with an information technology vendor committed to this level of clinical decision support is essential.

Skill 5. Continuous Access to Multimodal Communication

Quality of care is achieved through a continuous healing relationship.[1,2] This requires that patients and providers have access to secure communication at all times. The care team in family medicine handles patient messages in a timely manner, and important health information is proactively given to patients. Residents continuously participate as family physicians in responding to their patient's messages and proactively communicating with patients through a secure online portal, by telephone, and by arranged patient visits.

What Residency Programs Can Do to Achieve This Skill

Provision of secure online communication methods for all the providers, staff, and patients will be necessary. Policies are developed for these communications and include appropriate use, timeliness, and how messages are triaged. Residents will be expected to maintain their patient and staff communication "Inbox" at all times, both in and out of scheduled clinic time. All patient-related communications should be captured in the patient's health record.

Resources Needed

A secure online communication portal based in the electronic health record and/or in the practice website. Communication policies are developed and regularly updated to cover online messaging, telephone conversations, and visits. Residents have greater flexibility in scheduling patient visits.

Skill 6. A New Platform of Care

The convergence of these skills provides a new platform of care that makes the previous model of family medicine obsolete. The new platform of care offers an electronic health record available from any computer, including that of the patient in their home (their personal health record). This record has imbedded evidence-based knowledge management to guide clinical decisions. Secure online communication is imbedded in the electronic record, allowing for access to all patient information with online or telephone access. This is the new platform of care being rolled out by advanced health care systems such as Kaiser Permanente.[3] Residents are trained to provide care using this new platform, even if one or more of the electronic tools are still separate applications.

What Residency Programs Can Do to Achieve This Skill

Purchase and implementation of advanced information systems that support the new platform of care are necessary. All residents and faculty should interact with patients in a continuous manner using these tools.

Resources Needed

An advanced information system as described above. Policies will be developed to support its use on a continuous basis.

Skill 7. Time-intensive Visits

With family physicians having productive interactions with patients online and by telephone, fewer office visits are needed during the care of a population of patients. Office visits in the new model are scheduled selectively and are time-intensive based on patient needs.[6] Brief-visit office schedules are replaced by flexible and time-intensive schedules. Residents are encouraged and supported to spend from 30 minutes to more than 1 hour in the care of complex patients. The number of office visits is reduced, but the overall number of productive interactions with patients increases from the traditional brief-visit model of care. Time-intensive office visits reflect a thorough provision of care using a biopsychosocial model.

What Residency Programs Can Do to Achieve This Skill

Elimination of the visit requirements for residents, replacing it with measurements of all productive interactions in the care of a population of patients. Residents should be given more control over scheduling the patients to be seen and the time requested for the appointment, which will all be derived from the new platform of communication. Residents will be trained in effective time-intensive visits through methods such as video monitoring and role playing.

Resources Needed

Flexible scheduling of patient appointments and an ability to capture all resident interactions with patients.

Skill 8. Group Visits

Family physicians use group visits to consolidate care with patients having similar conditions, such as obesity and diabetes, and to create a dynamic where patients help each other. Residents are trained to provide group visits as part of their clinic experience. When organized well using the entire care team and with appropriate coding and billing for services, group visits become an important part of a modern family medicine practice.[7] Technology applications allow for a virtual presence of some members of the group, or possibly an entire virtual group visit.

What Residency Programs Can Do to Achieve This Skill

Group visits should be made a regular part of the office practice. Residents can participate in group visits for their patients on a regular and rotating basis, especially through the resident's identification of appropriate patients among their population. The office staff and faculty should be proficient in successful group visits and provide training for the residents.

Resources Needed

Group visit training and policies and the use of an appropriate room that will maintain confidentiality of the group visit discussion. Technology for virtual connection of patients for group visits.

Skill 9. Teamwork and Interpersonal Skills

The new model of family medicine requires the family physician have a high level of teamwork and interpersonal skills. Traditional practice was a physician "craft," with office staff an ancillary. Successful wellness care and chronic illness management requires that the entire office staff be engaged in the care of patients.[8,9] The family physician not only communicates well with patients, but also with the entire staff in a collaborative care manner. Everyone knows their responsibilities and the responsibilities of others, and the team "huddles" at the start of every patient care session. Residents learn to model teamwork in their practice and are measured on the quality of their interpersonal skills with patients and staff.

What Residency Programs Can Do to Achieve This Skill

Train residents in team practice and interpersonal skills. Model team practice in the clinic through training of all the office staff. Collaborative care with shared patient responsibility should be the norm. Everyone on the care team has access to the electronic health records, with an "Inbox" for messaging. Residents, along with faculty and staff, will be measured on teamwork and interpersonal skills at least once a year using a 360-degree evaluation.

Resources Needed

Training and modeling of team practice and collaborative care. Communication training for effective interpersonal skills occurring regularly. Advanced information systems are made available to all team members.

Skill 10. Financial Practice Management

The new model of family medicine must be financially successful. Residents should realize the financial aspects of all of the care activities they provide. The new platform of care requires financial contracts and policies to support it. Residents are trained in coding and billing for all the services they provide. Prepaid services, such as for online care, should be considered as part of the contracts with patients and insurers. A first step in a financial analysis of the new model of family medicine was provided by Task Force 6 in the Future of Family Medicine project.[10] Although there are new delivery methods in the new model, such as online

communication with patients and group visits, the efficiency created should allow for the new model to enhance revenues. In the words of design engineers, it should be "better, faster, and cheaper." Education is primary in residency training and should not be shorted to enhance revenue, but residency programs exist in a real world of patient care and should be financially viable. Better yet, they should be models of smart financing of care. The residents should have a detailed understanding of the finances that support the entire family medicine care model.

What Residency Programs Can Do to Achieve This Skill

Financial relationships with patients and payers to support the new model of care should be developed. Online communication with patients can be delivered as fees for "e-visits" or through prepaid arrangements such as a monthly or annual service charge. Practice management education with a full understanding of the organization and finances of the practice should be built into the resident's experience. Residents will be responsible providers of care from a financial perspective throughout the residency experience through accurate and complete coding of services.

Resources Needed

Financial contracts that support the model of care and a coherent financial model for the overall practice. Resident education should include financial practice management.

Portrait of the New Family Medicine Resident and Physician

The new model of family physician cares for a population of patients with robust information systems and continuous healing relationships. The care team takes pride in achieving high levels of patient satisfaction and excellent clinical outcomes whenever possible. Patients are actively involved in their own care. Face-to-face visits occur selectively, are time intensive, and include family and group visits. A secure and Web-based continuous platform of care is the dominant means of coordinating patient care needs and communication among patients and caregivers. Residents participate as personal family physicians to a population of patients using this model while simultaneously participating in targeted learning activities.

New model family physicians and residents do not spend most of their time on keyboards. Like Dr. Bones in Star Trek, new model family physicians listen, observe, think, and speak. All thinking is technologically enhanced. Soon, finger print or retinal scan identification and voice recognition will replace keyboards as access to patient data and medical knowledge. New model family physicians will balance their time between functioning through an electronic system of care and being face-to-face with patients and families.

As population-based providers of care, new model family physicians play a unique role in the communities they serve. The primary care teams across a health care delivery system have knowledge about the health and heath needs of a community that were never before realized. Pooled patient information allows for a regional health information network that is able to respond to community needs in prevention and chronic illness care. Planned care to populations of patients will be rich with information and options for providing care. New model family physicians will be drawn into activated community care roles.

A Week in the Life of a Resident

Sally is a second-year family medicine resident on her maternity care rotation. With the graduation of a residency class, her family medicine patient population has recently expanded from 200 to 400 patients. She is on Labor and Delivery, with some free time waiting for her patient to progress. She logs on to her family medicine "Inbox" for messages and laboratory test results. She also studies her new patients and is able to sort them by age, sex, and illness, curious as to how her practice has expanded. She looks for priorities in addressing the health of her patients: diabetics who are poorly controlled, asthmatics who have had frequent acute visits, and seniors who have not had their recommended screenings. She sends personalized information messages to her new patients, all individually addressed (but for Sally these are group messages). She encourages her new patients to come and meet her either through individual or group visits.

Sally now has 3 half days in the family medicine center. She is able to see her upcoming schedules in advance and is able to schedule the appointments of

many of her patients. She has the flexibility of scheduling her patients for a standard 30- or 60-minute visit, or even longer for a family conference or group visit. She is also able to schedule a brief 15-minute visit to quickly look at a patient with a rash or possible ear infection. She communicated with her team of office staff to schedule meetings with new patients.

The family medicine center has the flexibility to allow Sally to see one of her patients anytime the office is open or after hours. Sally sees 4 to 6 patients, couples, and families in a usual clinic session, with 2 to 3 such visits scheduled at other times during the week and a weekly group visit with her patients. She has approximately 50 patient interactions each week electronically and by telephone, and she reviews a similar number of faculty and staff messages and laboratory test results.

Sally attends educational sessions and meetings with her family medicine program either in person or virtually, depending on her location and other responsibilities. She has adjusted to the dual continuous roles of a family medicine resident: focusing on a block rotation while maintaining the continuity of a clinical practice as a personal family physician. The advanced information system provides a platform of care that facilitates this duality of purpose and learning.

Sally also enjoys a rich personal life with her spouse and 2 children. She is often able to leave early to attend a child's activity and can finish her messages and documentation from home when her children are asleep. Most of Sally's communication with patients is done asynchronously at the mutual convenience of her and her patients. Fortunately, her residency program has a philosophy of patient-centered care balanced with a spirit of vitality for the physicians and staff. Turnaround times for non-emergency patient messages are 24 hours during the week, with none required over the weekend. She is happy not to be part of a program that gives a Blackberry to all the residents and expects rapid responses to almost everything.

Discussion

In many ways, the essential skills and portrait described here are back to the future. The original model of family medicine residency training emphasized a continuity of care experience with a panel of patients. Residents would be "model" family physicians caring for patients in a "model family medicine center." Although block rotations would be necessary to obtain advanced education and skills, residents would not be separated from their longitudinal patient responsibility. In the 1970s, some programs developed pairing systems for residents on block rotations so that the continuity of care in the family medicine center could be maintained. Nonrotational programs were developed so that the home base and identification with the family medicine center was maintained.

There has been considerable entropy with the original concept of the longitudinal residency experience, and resident identification with their panel of patients has been reduced in many programs. The new model of family medicine calls for a renewed and intensified identification with a population of patients. The tools of health information technology allow for access to patient data never before available. Family physician residents and faculty may provide care to their patients outside of clinic schedules. Health information technology and a renewed commitment to ongoing patient responsibility provide new opportunities for residents to manifest continuity of care and achieve health outcomes for their patients never before experienced.

The first rule in *Crossing the Quality Chasm*[2] is that care is based on *continuous healing relationships*. The first concept in the Future of Family Medicine is the *personal medical home*.[1] If residency programs make a firm commitment to these as the primary applications of the resident experience, they will have joined in the redesign of family medicine and will be preparing their residents for a new and exciting future.

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