

The Patient-Centered Medical Home:

A Brief Educational Agenda for Teachers of Family Medicine

Jerry Kruse, MD, MSPH

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In 2007 and 2008, STFM President John Rogers, MD, MPH, MEd, wrote a series of articles that outlined an educational agenda for the patient-centered medical home (PCMH).¹⁻⁶ Over the past 5 years, data compiled by the Patient Centered Primary Care Collaborative (PCPCC) have corroborated the historical evidence and added new evidence that the PCMH is a clinical model that improves health care outcomes and lowers health care costs.^{7,8} All family medicine educators should have a clear understanding of the effective elements of the PCMH, and this knowledge should be transmitted to all of our learners, to our colleagues in other disciplines, to the leaders of our local institutions, and to legislators, regulators, members of the media, insurers, and business leaders. The educational agenda for the PCMH is broad, and I will address the current status of the agenda in this article.

A Brief History of the Effectiveness of the PCMH

The term “medical home” was coined by pediatricians in the late 1960s. The model used by this discipline coordinated health care services for children with chronic illnesses. In 2002, consultants for the Future of Family Medicine project encouraged family physicians to use clear language to identify their profession and practice. The consultants recommended that we call ourselves family physicians (not family practitioners), that we call our discipline family medicine (not family practice), that we call our practice the Personal Medical Home, and that we call our facility for ambulatory

care the Family Medicine Center. In 2004 and 2005, a series of articles by Barbara Starfield, MD, MPH, articulated the elements of primary care practice that improve outcomes and lowers costs.^{9,10} These essential elements are listed on the top portion of Figure 1 and subsequently became the foundational elements of the PCMH.

On September 28, 2006, Thomas Weida, MD, representing the American Academy of Family Physicians (AAFP), testified about the effectiveness of the Medical Home to the House Energy and Commerce Subcommittee on Health. This committee embraced the medical home concept as the basis for ongoing health care reform legislation. In March 2007, the AAFP, the American Academy of Pediatrics, the American College of Physicians, and the American Osteopathic Association produced *The Joint Principles of the Patient-Centered Medical Home*, a summary of which is found on the bottom portion of Figure 1. It was then that the term “patient-centered medical home” became the legislative definition for the type of primary care practice that improved outcomes and lowered system-wide costs. The Joint Principles incorporated the seven effective elements articulated by Starfield and visionary elements that emphasize the effective use of health information technology, evidence-based medicine, and care coordination. A critical appraisal of each of the bulleted points of the Joint Principles was published by Rosenthal.¹¹ The two documents produced by the Patient Centered Primary Care Collaborative have corroborated the effectiveness of the visionary elements advanced by the authors of the Joint Principles.^{7,8}

Definition and Implementation of the PCMH

The top portion of Figure 1 shows the simplicity of the seven foundational elements of the PCMH. Implementation of these relatively simple concepts has proven to be a complex process. Family medicine educators must treat foundational principles of the PCMH much like the major elements of a strategic plan. The foundational principles of the PCMH should be known cold by all family medicine educators and should be used to guide us as we develop the educational environment and learning objectives for the PCMH in our local environments. When developing educational programs, we must not become enveloped by details that do not directly relate to foundational principles of the PCMH. Though certification agencies often include details outside the realm of the foundational principles, we must remain true to the foundational principles when assembling the PCMH and developing educational programs therein.

Educational Agenda for the Patient Centered Medical Home

1. Medical Student Education

Family medicine educators must assure that the principles of the PCMH are taught to medical students at all level of training, Year 1 through Year 4. We must develop new educational models to deliver the PCMH curriculum. In 2007, in response to the evidence from Starfield and the Joint Principles, the Department of Family and Community Medicine (FCM) at Southern Illinois University (SIU) School of Medicine changed the focus of the 6-week, Year 3 clerkship. The major educational emphasis of the clerkship changed from one that emphasized presenting complaints and care of acute and chronic illnesses to one that emphasized systems of care delivery and the PCMH model. Figure 1 is used as the major reference guide for students on this clerkship. Since the institution of this new model of clerkship training, the FCM clerkship has become the highest rated clerkship in the SIU system. Student scores on the Family Medicine National Board of Medical Examiners shelf test have not declined over this period of time.¹² For such a model to be successful, family medicine clerkship directors must identify clinical practices and preceptors who successfully model the foundational elements of the PCMH.

2. Residency Education

Family medicine resident physicians should practice in environments that use the foundational elements of the PCMH. Most of these experiences should be in practices that are dedicated to residency training, and others should be undertaken in an apprenticeship model in PCMH practices with physicians that provide one-on-one training for the family medicine resident physician. Needless to say, all family medicine resident physicians should master the material cited in this article.

3. Longitudinal PCMH Training Experiences

An excellent way to introduce the principles of effective primary care practice to medical students is through longitudinal experiences in exemplary PCMH practices as early as possible in medical school training. The development of a hierarchal curriculum in effective practice by usual sources of comprehensive longitudinal care will provide the student an appreciation for the effectiveness of such model.

4. Block Training in the PCMH

Longitudinal experiences in the PCMH are not enough for medical students. Block PCMH experiences provide educational experience considerably different than that provided in longitudinal training. It is my opinion that every medical student should have one or more block experiences in an exemplary PCMH for a sustained period of time, at least 4 weeks. The student must live and breathe the practice day to day to truly understand the meaning of first contact access, comprehensive care, patient-focused care over time, and coordinated care. Family medicine resident physicians should also have block experiences in which they live and breathe such exemplary practices.

5. Inter-Professional Education

If family physicians are to become adept at team-based and coordinated care, early inter-professional educational experiences are a necessity. The earlier such educational experiences occur in the student's training, the more likely the student is to incorporate coordinated team-based care in later practice. Students from a variety of disciplines – medical assistants, nursing students, nurse practitioner students, physician assistant students, pharmacy students, counselors, social workers, physicians—should have early training

Figure 1: The Patient-Centered Medical Home: Outline for the Southern Illinois University Family Medicine Clerkship

Characteristics of Practices of Personal Physicians Associated With Improved Health Outcomes and Equity and With Lower Costs^{9,10}	
The Four Essential Functions of Primary Care	
<ol style="list-style-type: none"> 1. First Contact Access. The degree to which patients seek advice and care first at the practice of the personal physician, except for medical catastrophes 2. Patient-focused Care Over Time. The degree to which the practice emphasizes patient-focused care, rather than disease-focused care, and longitudinal care, rather than episodic care 3. Comprehensive Care. The degree to which the personal physician provides a broad range of health services 4. Coordinated (Integrated) Care. The degree of integration of care among health professionals and staff, both within the patient-centered medical home and with outside organizations and consultants and the degree to which talents of all members of the team are used optimally 	
The Three Corollary Functions of Primary Care	
<ol style="list-style-type: none"> 5. Family Orientation. The degree to which medical services are provided to family members by the same personal physician 6. Community Orientation. The degree to which the practice assesses the needs of the community, designs interventions, and measures outcomes 7. Cultural Competence. The degree to which the biopsychosocial model is employed and health beliefs are addressed 	
Joint Principles of the PCMH	
AOA, AAFP, AAP, and ACP Legislative Definition of the PCMH and Vision for the Practice of the Future http://www.medicalhomeinfo.org/Joint%20Statement.pdf	
<ul style="list-style-type: none"> • Personal Physician • Physician Directed Medical Practice • Whole Person Orientation • Coordinated and Integrated Care 	<ul style="list-style-type: none"> • Quality and Safety Measures Evident <ul style="list-style-type: none"> • EBM and Clinical Decision Support • Voluntary CQI Processes • Patient's Expectation Met • HIT Used Appropriately • Voluntary Recognition Process • Enhanced Access • Appropriate Payment
<p>The four essential functions of primary care and the three corollary functions of primary care (together the seven foundational elements of primary care) have long been known to improve health care outcomes and lower cost. Recently, high-functioning data management systems and systems of care coordination, such as the elements listed under "Quality and Safety Measures Evident," have also been shown to improve outcomes and lower costs. Reports of the Patient Centered Primary Care Collaborative have provided this new data.^{7,8}</p>	

experiences together in a PCMH setting. A progressive, inter-professional curriculum through training will give our medical students and resident physicians the best opportunity to "practice at the top of their training" and to allow those in other disciplines to do likewise.

6. Simulated Practice

Simulation in health care education is gaining in popularity and efficacy. Too often, simulation of team-based care in office and community settings is neglected. Family medicine educators should develop curricula that provide

simulated practice experience in community and primary care office-based settings.

7. Care Coordination

The PCMH must model appropriate care coordination. At the least, family medicine resident physicians should understand and should be able to supervise the following categories of care coordination: (1) Care coordination/case management oversight (project manager). This coordinator will have mastered the skills of the other three types of care coordinators below and will have skills in administration and team building, (2) Case management for the vulnerable, high-risk, high-cost patient (case manager). Patients in need of this level of care will be identified on a population basis and will require the services of an RN or social worker, (3) Care coordination for transitions of care (transition coordinator). Most transitions of care will occur between the hospital, the home, and the primary care office but also will include transitions to nursing homes and other living facilities. It is best that this care coordinator's office be located physically in the PCMH, (4) Longitudinal care coordinator for registry function (registry coordinator). This position will manage data, registries, visit summaries, pre-visit preparation, referral tracking, and meaningful use.

8. Mental Health Services

Co-location of mental health services under the roof of the PCMH has become increasingly popular in the United States and Canada. Comprehensive mental health services, which include counseling by social workers and licensed clinical professional counselors and periodic on-site consultations by psychiatrists, has proven beneficial as a component of the comprehensive care needed in the PCMH.

9. Information Technology and Health Information Exchange

All of our learners must be adept at using electronic medical records (EMRs) and interpreting data provided by EMRs. EMRs must give an advantage in the utilization of evidence-based medicine by providing point-of-service clinical decision support. The EMR must also provide rapid feedback of packaged information to the providers in a continuous quality improvement process. Family medicine educators should insist that utilization of this type of information technology leads to the granting of continuing medical education credit, enabling

CME credit for utilization of point of service decision support and reinforcing CME credit for CQI processes.

10. Advocacy

Family medicine educators should advocate for activities that will promote the development of a pervasive network of PCMHs. We must collectively develop advocacy skills for payment reform and blended systems of payment, for new legislation related to the PCMH, and for systems of health information exchange.

11. Leadership Training

To date, required curricular elements for leadership training for medical students and family medicine resident physicians have been meager. Required leadership training experiences are needed for family physicians to direct inter-professional care and to lead health system reform, both vital to the development of effective and pervasive PCMHs.

12. Faculty Development

We must provide resources to train faculty members in leading change and in PCMH educational initiative. We await implementation of the Primary Care Faculty Development Initiative (PCFDI), an initiative developed jointly by HRSA, the American Board of Internal Medicine, the American Board of Pediatrics, and the American Board of Family Medicine as a pilot program designed to provide four interdisciplinary faculty teams in internal medicine, pediatrics, and family medicine an opportunity to engage in a collaborative learning experience that focuses on new models of health care delivery.

CORRESPONDENCE: Address correspondence to Dr Kruse, Southern Illinois University, Department of Family and Community Medicine, PO Box 19671, Springfield, IL 62794-9671. 217-545-0200. jkruse@siumed.edu.

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