The Patient Centered Medical Home (PCMH): Looking at Examples and Research on Staffing Models

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Introduction

The Patient Centered Medical Home (PCMH) model has been proposed to address current problems in the healthcare system. The idea is to connect patients with primary care that will coordinate care as well as serve as a central location for health and wellness (Longworth, 2011). This concept was introduced in 1967 by the American Academy of Pediatrics (Jackson, et.al, 2012). The purpose of the PCMH is to provide patient centered care by working in partnership with a team of practitioners in conjunction with the patient and their family ("Defining the Medical Home," 2013). It intends to be comprehensive, which considers physical care in addition to mental health, preventative care, chronic care, and acute care ("Defining the Medical Home," 2013). PCMHs coordinates different aspects of health care, including specialty care and home health, to ensure continuity in care for the patient (Helfgott, 2012). Patients have more access to their care providers through e-mail or telephone ("Defining the Medical Home," 2013). Lastly, electronic health records are used to assist in timely follow up for patients and to automatically identify care opportunities such as vaccinations ("Defining the Medical Home," 2013). In order to officially be recognized as a PCMH, the health

center must meet a series of criteria set by the National Committee for Quality Assurance (Helfgott, 2012).

Currently, Adelante Healthcare is looking into ways to implement the PCMH model in one of their clinics. This project is to research various staffing models to create support for a proposed staffing plan and to gain awareness about general research about PCMHs. The final staffing proposal is still in progress.

Background

The US healthcare system as it stands now is a broken system that delivers fragmented, subpar care (Longworth, 2011). Currently, a doctor refers a patient to the specialist, but there is no follow up on the results of the referral. No central location exists for patient information to be gathered and reviewed to evaluate the patient's overall condition (Longworth, 2011). Not only is the system inefficient it is also very expensive costing $7,960 per capita as compared to Japan that only spends $2,878 per capita (Longworth, 2011). This current system is not financially sustainable and is not meeting the needs of patients.

Various models of PCMH have been created in the last few years to address these problems. Many use a combination of medical assistants (MA), registered nurses (RN) and

electronic health records (EHR) to achieve the goals of a PCMH. Also, many models target patients with a particular disease, for example: diabetes or autism.

Methodology

Initially, I planned to research this topic using PubMed as a search tool, looking only at clinical trials or intervention related studies, because these studies are considered more rigorous. I wanted to look at articles that compared the PCMH model to usual care; I felt that this would give more substantial data about the staffing model used in the study. Unfortunately, not a lot of these papers exist. Many were merely case studies written about clinics that implemented a version of a PCMH. I started looking at other resources and found the "Patient-Centered Primary Care Collaborative" website which I used to find a collection of case studies about diabetes. Articles on PCMHs vary widely from case studies, to quasi-experimental, to randomized control, to opinion. I selected a sample of studies that were most relevant to Adelante.

I chose to present a series of case studies that focused on diabetes because Adelante plans to implement a program that targets diabetic patients. These case studies mostly took place in the community and therefore were more comparable to Adelante's structure and resources. I also

chose one experimental and one quasi-experimental study targeting Children with Special Health Care Needs (CSHCN) and autistic children. I wanted to include examples of how PCMHs were being used in other chronic illnesses to provide perspective. Another article I included in this paper looked at the long term effects of the PCMH on emergency room visits. This study was important to include because it looked at effects of PCMHs on public resources over time and put PCMH in context of the community. Finally, I incorporated a systematic review article that looked at all types of PCMH research, discussed strengths and weaknesses of the model, and critiqued the research that has been done thus far. I selected these articles because they were from reputable sources and written from a neutral perspective. I wanted to present a variety of studies that would be of greatest value to the organization.

Results

Many methods have been attempted to improve primary care. The following examples are ways primary care clinics have attempted to improve care for their patients with diabetes. The Patient-Centered Primary Care Collaborative, 2011, presented these examples as case studies.

Hudson River Healthcare is located in New York and is a network of federally qualified community health centers. A

large number of their patient population is underserved with diabetes ("Patient-Centered," 2011). Hudson River Health Care recruited community health workers (CHW) who have diabetes and are from the same community as the patients they serve ("Patient-Centered," 2011). CHW's coordinate care, make referrals, respond to patient needs, follow up with phone calls, and ensure referral appointments have been completed ("Patient-Centered," 2011). The patients feel more comfortable corresponding with someone from their own community; they are able to speak more candidly about their concerns ("Patient-Centered," 2011). RN's are used to manage the most high-risk patients by closely following their care and providing in depth education to the patient and their family ("Patient-Centered," 2011). EHR is used to prompt care opportunities such as preventative care or specific diabetes related interventions such as HbA1c check up ("Patient-Centered," 2011).

Washington State Department of Health implemented a statewide initiative to improve the health of patients with chronic care. Thirty-two practices were involved in this effort ("Patient-Centered," 2011). Diabetes is a large problem for their patient population. The initiative focused on various themes such as leadership, team based

relationship, evidenced based care, and care coordination ("Patient-Centered," 2011).

They used MA's to improve the flow of patient care and to coordinate care for the patients. They were also responsible for handling group visits. These group visits provide patients opportunities to learn about blood sugar, cholesterol, blood pressure etc. and encourage patients to support each other ("Patient-Centered," 2011). RN's were specifically used to manage the high-risk patients ("Patient-Centered," 2011). One advantage of this model is that it creates opportunities for patients to interact and learn from each other.

Thomas Jefferson University, Department of Family and Community Medicine had a slightly different approach to the PCMH. They utilized "super" MAs to monitor data, coordinate care, identify diabetes patients, make follow up phone calls, and streamline referrals to various specialists ("Patient-Centered," 2011). Pharmacists and mental health workers provided case management to higher risk patients("Patient-Centered," 2011).

A pharmacist is probably the best healthcare professional to give education about the purpose of diabetes medication. But since a pharmacist is not readily available to every site, this may not be the best model. Also, the

advantage of using a pharmacist vs. a nurse vs. a diabetes educator should be reviewed when considering qualifications that are needed to fill this educator role.

Westlaco Medical Clinic is a single physician run family care practice. They used a group approach to implementing the PCMH ("Patient-Centered," 2011). Diabetes patients would be invited to a 90-minute diabetes class. During the class, patients would see their provider individually, while the others are taking part in classroom activities ("Patient-Centered," 2011). This shared medical appointment time allows diabetic patients to meet other patients and to ask questions about their condition while they wait to be seen by the provider ("Patient-Centered," 2011). Providing the opportunity for diabetic patients to meet is great for building friendship and support among the patients, however, a shared medical visit may pose a challenge to protecting patient confidentiality. This model must be mindful of HIPAA regulations and that activities do not violate patient rights.

A randomized controlled intervention study looking at the PCMH model in Children with Special Health Care Needs (CSHCN) by Farmer, Clark, Drewel, Swenson & Ge, 2011, used a care coordinator/ family support specialist to assist parents. One hundred families were selected for this care

coordination study. Subjects were recruited from primary care clinics in 16 counties of the central Midwest. The family support specialist is a paid parent who has experience with caring for CSHCN. They provide the family with emotional support, advocacy, monthly follow-up and home visits (Farmer, Clark, Drewel, Swenson & Ge, 2011). A lead nurse practitioner provided the core interventions as well as education. The study results showed improved outcomes for the child and increased parental satisfaction (Farmer et al., 2011). The study also suggested financial savings but did not elaborate on the details (Farmer et al., 2011). Here is another great example of utilizing a member of the community that understands the challenges of the condition to improve patient satisfaction and outcome.

Golnik, Scal, Wey & Gaillard, 2012, conducted a quasi-experimental study targeting Autism. It utilized collaboration between a general pediatrician, nurse care coordinator, and a scheduling coordinator. Subjects volunteered to participate in the study. Together they devised a specific care plan for the individual child (Golnik, Scal, Wey & Gaillard, 2012). They used a monitoring log to track the intervention as well as coordinated care with outside resources. The article did not go into the details of each plan, only to say that each plan was tailored

to the child (Golnik et al., 2012). This study took place in a private primary care clinic in association with the University of Minnesota.

Many studies featuring a PCMH focus on a particular disease. The interventions are targeted to that particular patient population. This may be the easiest way to pilot a new staffing model and measure its success but a PCMH needs to be able to serve all its patients. A successful clinic would be able to effectively manage all their patients by providing patient centered care that is tailored to the patient's needs regardless of disease. Another problem is that many patients have more than one chronic disease at a time and a successful model should be able to care for these patients as well. The challenge is to find a method that will improve patient outcomes while still continuing to be financially productive.

A study looking at PCMH and its effects on emergency room (ER) visits by Roby et al., 2010, suggested that over time, PCMH could decrease emergency room visits for some patients (Roby et al., 2010). Orange County, California implemented a study where emergency rooms would connect patients to a PCMH prior to discharging the patient from the ER. The study found that the longer a patient stayed connected to the same PCMH the less they utilized the ER.

However, the shorter they were connected to a PCMH the more they used the ER (Roby et al., 2010). For example, patients that were only recently connected to a PCMH for less than a year were likely to return for ER services. Similarly, patients that bounced around from PCMH center to another tend to use more ER services than those that were at the same PCMH for two or more years (Roby et al., 2010). Frequent changes in primary care results in poor, fragmented care and more ER visits. Not many PCMH studies address retention strategies for patients that visit multiple clinics. The PCMH does have the potential to decrease ER usage if the PCMH has good patient retention, but more long-term data is needed.

A systematic review by Jackson et al., 2012, revealed less than promising results. 5731 articles pertaining to the PCMH were found, but only 31 were peer-reviewed studies and met criteria for analyzation. The study found that no single method was used in most studies (Jackson et al., 2012). This means that all clinics that were studied had a different approach to the PCMH. The large variance in strategy makes it difficult to evaluate and determine success (Jackson et al., 2012). The systematic review found that although improvements in preventive services and patient satisfaction were made, there was not enough data to evaluate efficacy on managing chronic illness and cutting cost (Jackson et al., 2012). PCMH

may have some effects on decreasing emergency room visits, but the evidence is not very strong (Jackson et al., 2012).

Discussion

Studying PCMH is a challenge. Studies vary widely in methods and measured outcomes, making it very difficult to compare to each other (Jackson et al., 2012). One study may be looking at the number of rehospitalizations while another may be looking at patient satisfaction. Another study could be measuring blood pressure, yet another study could be measuring financial savings. Also, the definitions of PCMH is not consistent across studies, therefore, each PCMH model can be very different from another model (Jackson et al., 2012). Evaluating these studies can be difficult without a common agreement of the PCMH definition. The quality and rigor is lacking in many of these studies. The systematic review found 5731 articles related to the PCMH but only 31 were peer-reviewed and rated as good or fair (Jackson et al., 2012).

Although the previous research on PCMH is not compelling, time and money is being poured into implementation. However, results of the systematic review is not completely discouraging, but encouraging. Health care is at a turning point. The fact that models of the PCMH vary widely suggests that there is opportunity for innovation. No

standard method exists for the PCMH model, which means that the best practice for PCMH models has yet to be discovered.

Recommendation

Adelante sees a variety of chronic conditions. They should start implementation by targeting one condition such as diabetes. Standard operating procedures and standing orders should be written to allow MA's and RN's more autonomy. For example, if a patient is due for lab work, the RN should be able to refer them without having to wait for the primary care provider's authorization. MA's will be mainly responsible for coordinating the care while RN's will be managing high-risk patients and providing education and case management.

MA's will be responsible for looking through the EHR and contacting patients to come in for appointments. They will also follow up on referrals and identify care opportunities such as annual optometry or podiatry visits for a patient. MA's will be doing a lot of communication and coordination between patients and providers.

RN's will be primarily responsible for giving extra support to the high-risk patients. These patients may need extra support in managing a new lifestyle, or need more education regarding medications. RN's will be available to

meet with patients on a regular basis in addition to their visits with the primary care provider.

Once this system is in place and working well, standard procedures can be written for other chronic conditions such as high blood pressure, heart failure, chronic obstructive pulmonary disease, etc. The advantage of this system is that it can expand to other illnesses. The disadvantage is that standard procedures and orders may not work well for the patients that have comorbid conditions. Careful monitoring of this program in the beginning will be needed to ensure that this system is working well and patient needs are being adequately met.

Conclusion

PCMH lacks long-term data, therefore, evaluating the efficacy of this health care model is challenging. There is no standard way to deliver this type of care at the moment; only time will tell which methods will be effective. This is a time of opportunity for health care professionals and entrepreneurs to work together to improve the way health care is delivered. Many PCMH studies have targeted specific patients with a particular disease, but this is not practical for clinics that serve a variety of patients with many different diseases. More research needs to be geared towards a PCMH model that will be beneficial and sustainable for

primary care centers that serve a diverse population. The expectation for the PCMH should not be that it will solve all healthcare problems immediately, but that it will take time, effort and money to find a system that will eventually better the current system and cut costs. Over time the best strategies will be the ones that result in good patient outcomes and financial savings, and then will become the new standard.

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