**Building Teams at the Associates in Internal Medicine: The Medical Huddle as a First Step**

**Abstract**

In the current model of health care delivery, the primary care physician works alone rather than as an integrated member of a medical team, resulting in inefficient care delivery and breakdowns in workplace morale and evidence-based practices. The leading innovation that has emerged to address this challenge is the patient-centered medical home (PCMH), a model focused on organizing care around patients by fostering teamwork among inter-disciplinary staff. Since achieving its status as a Level 3 PCMH, the Associates in Internal Medicine (AIM) practice at Columbia University Medical Center has made significant improvements to its health care delivery model. However, according to a recent staff satisfaction survey, there remains room for improvement with regard to communication and workflow. Many practices across the country have implemented a component of team-building called the medical huddle, a short meeting with all team members to kick start the day, to address such challenges. In this study, we aim to determine whether implementation of a medical huddle at the AIM practice will improve satisfaction, efficiency and patient outcomes.

**Study Description**

1. Study Purpose and Rationale

In the current model of health care delivery, the primary care physician is responsible for rendering diagnoses and providing acute, chronic and preventive care services in 15-minute intervals. This system, which is predicated on the physician working alone rather than as an integrated member of a medical team, delivers care in an inefficient and uncoordinated manner and fails to meet the increasingly complex health care needs of our society. The profound sense of entropy that has come to characterize the practice of primary care as a result promotes breakdowns in evidence-based practices, the physician-patient relationship and workplace morale and workflow.

In the literature on ambulatory practice reform, the following statistics are often cited as the consequences of an inherently chaotic primary care office: recommended care is provided for prevention and acute and chronic conditions in only an average of 54.9 percent of instances (McGlynn, Asch et al. 2003); a total of 18 hours per working day is required to provide all recommended preventive care and adequately manage all chronic conditions for a patient panel of 2,500 (Yarnall, Pollak et al. 2003, Ostbye, Yarnall et al. 2005); physicians interrupt their patients' opening statements in an average of 23 seconds and, in 25 percent of visits, patients feel they were never able to express their concerns at all (Marvel, Epstein et al. 1999).

The leading innovation that has emerged to address these challenges is the patient-centered medical home (PCMH), a model focused on organizing care around patients by improving coordination and communication among inter-disciplinary staff. The concept of PCMH is woven into the Patient Protection and Affordable Care Act, which deliberately provides a broad definition allowing for significant flexibility (Counsel 2010).  Similarly, the National Committee for Quality Assurance, the main private organization

for accrediting PCMH, has purposefully established a low threshold for recognition. This is important because it recognizes that practices vary remarkably in their resources, cost and structure. However, it also signals that the process of accreditation and recognition does not in itself promote team-building – the onus is on the primary care practice to work from within to institutionalize components of team-building. Therefore, while many community and academic practices have acquired recognition as a PCMH as a first step, they have substantial work left to do in the way of creating high-functioning primary care teams on the ground.

One such practice is the Columbia University Medical Center's Associates in Internal Medicine (AIM). In achieving its status as a Level 3 PCMH, AIM has made significant improvements to its health care delivery model, with particular emphasis on health information technology, patient self-management, staff co-localization, and regular process meetings for feedback and evaluation. However, based on the results from a limited satisfaction survey completed by a sample of AIM employees, there remains room for improvement.

In March 2011, the employees working in Module 240 were asked to complete a short questionnaire to determine areas for improvement. The instrument consisted of nine satisfaction-related questions with five potential pre-specified answers ranging from strongly disagree to neutral to strongly agree. The survey highlighted a number of deficiencies within the system, but the most striking among them were inconsistency in the module's daily practices and poor communication between members of the staff. For example, one PFA commented that getting in touch with a physician or nurse about a clinical question felt difficult. In addition, the majority of staff members felt that patients were unaware of how to access the clinic system. As a result, patients were unable to utilize clinic services to their fullest potential and required repeated messaging on the processes for completing forms, obtaining refills, conveying a message to their doctor, and even making appointments.

The most salient issues highlighted by the AIM employees, namely inconsistency and lack of communication, can be directly addressed by forging stronger teams. In response to communication breakdowns, many practices across the country have institutionalized a component of team-building called the medical huddle, a short meeting with all team members every morning and afternoon. If done well, the huddle can accomplish ambitious goals such as optimizing overall efficiency and improving service quality (Bodenheimer 2007, Stewart and Johnson 2007). However, at its core, the purpose of the huddle is to foster social cohesion – a sense of team – between people working together.

Aim 1: Determine whether the implementation of a daily medical huddle will improve satisfaction and workplace efficiency.

Hypothesis 1: Implementation of the medical huddle in AIM Modules 207 and 231 will be associated with an increase in staff satisfaction, an improved work environment and improved patient satisfaction compared with control Modules.

Aim 2: Determine whether the implementation of a daily medical huddle will improve patient outcomes.

Hypothesis 2: Implementation of the medical huddle in AIM Modules 207 and 231 will be associated with an increase in patient satisfaction scores on the Press Ganey Survey compared with control Modules.

2. Study Design and Statistical Analysis: Quality Improvement Project Design

We will conduct a controlled clinical study of modules to assess the relationship between the medical huddle and workplace satisfaction, teamwork and overall efficiency. Our target sample will include four AIM modules (231, 227, 207, 204), two of which will be assigned to the intervention arm and two to the control arm. The intervention, the medical huddle or "I.R.A." (Introduction, Reflection, Anticipation), will begin at 9:00am and last approximately ten minutes. Clinical duties will be suspended during this time to allow for all employees (PFA, MA, MD, RN) to congregate in a circle and engage in a process of organized Introductions, Reflection and Anticipation. Team members will stand rather than sit as a way of promoting efficiency and remaining cognizant of the time. The medical assistant in each module will serve as the team leader. This person will commence the huddle by asking each person to introduce themselves by name and title – The Introduction: "Good morning, my name is Jessica Singer, I'm an attending physician." Next, the team leader will solicit feedback on the prior day – The Reflection: "What did we do well? Where can we improve? How should we do things differently today?" Finally, the team leader will ask each member to anticipate challenges during the upcoming clinic session – The Anticipation: "A PFA called out sick this morning so any help you can provide me would be appreciated"; "the printer is out of order so these paper requisition forms should be used instead"; "When my patient, Mrs. A, comes in today, could you make sure I'm ready for her before you bring her back for vitals. She is older and slow, and I want to make sure she is able to come straight into my room after her vitals are checked."

The data will be analyzed using the Chi-squared test. The data from the questionnaires will be converted into dichotomous variables, using 0 for disagree, strongly disagree and neutral, and 1 for agree and strongly agree. The sample size needed to obtain an effect size of 10 percent is 384 subjects per group. As a result, we expect six months will be required to obtain the necessary amount of data.

3. Study Procedures: We will survey all members of each module prior to the intervention and then six months into the intervention to assess workplace efficiency and satisfaction. A composite score of data from the Press Ganey Survey will be used to assess patient satisfaction prior to the intervention and then six months into the intervention.

4. Study Questionnaire:

a. Quality Improvement Project Questionnaire (addendum I): a modified version of the Staff Experience Survey created through a partnership between the University of Chicago and the

Commonwealth Fund. The abbreviated and modified one-page questionnaire contains two sections: work satisfaction and work environment. It also includes a space for comments. The questionnaire will be administered pre-intervention and then again six months into the intervention.

      b. Press Ganey Survey (addendum 2):

5. Study subjects:  Each module has 2-3 PFAs, 1 RN, 1 medical assistant, and 10-15 providers (Attendings, Nurse Practitioners and Resident Physicians). The subjects are all ≥ 18 years of age.

6. Recruitment:  A member from the study team will introduce the study at each module's monthly staff meeting and will ask each staff member to complete the survey prior to the intervention time period and six months into the intervention.

7. Confidentiality of Quality Improvement Project Data: All staff member data will be coded in the study database, using the following procedures. Each staff member in the data set will be assigned a unique identification number. Only Dr. Rahul Vanjani and the study data managers will have access to the code linking staff member and identification number, and this code will be kept on the Division of General Medicine's secure password protected server. The relevant demographic information (occupation) will be entered for each staff member. The staff member survey data will be coded with the same study number and will be kept in a separate database. The merged data set will be made available only to Dr. Vanjani for analysis. All devices used to access research data will be protected with a strong password and data encryption according to CUMC IT policies. All study personnel have GCP and HIPAA training certificates.

8. Potential Risks: There is no more than minimal risk for study subjects because data will be coded and kept on a secure server. None of the answers on the survey will be used in any way to reevaluate or penalize subjects. No subject will be individually identified in any internal report, external presentation or publication of this research.

9. Potential Benefits:  If successful, we anticipate that the intervention will improve staff (job) satisfaction and patient satisfaction.

10. Alternatives: All staff will have the option not to complete the survey prior to the intervention and six months into the intervention.

# AIM Practice Staff Experience Survey (Addendum I)

This is a survey to find out about staff satisfaction and workplace efficiency and teamwork. This survey is completely confidential: the information on this survey will be kept restricted at all times and only the study staff will have access to it. Participation in this survey is completely voluntary. You do not have to fill out this survey. There will be no penalty if you do not want to participate.

If at any time you have questions or concerns about this survey, please call Dr. Jessica Singer at

What is your position at the clinic: _____

## Section A: Work Satisfaction

1. Please state how much you agree with the following statements (check one):

| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|
| a. Overall, I am satisfied with my current job | ☐ | ☐ | ☐ | ☐ | ☐ |

2. Using your own definition of "burnout", please check one:

☐1  I enjoy my work. I have no symptoms of burnout.

☐2 Occasionally I am under stress at work, but I don't feel burned out.

☐3 I have one or more symptoms of burnout, such as physical or emotional exhaustion

☐4 The symptoms of burnout that I'm experiencing won't go away. I think about frustration at work a lot.

☐5 I feel completely burned out and often wonder if I can go on.

## Section B: Work Environment

3. Please state how much you agree with the following statements (check one):

| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|
| a. People in this practice operate as a real team | ☐ | ☐ | ☐ | ☐ | ☐ |
| b. When we experience a problem in the practice we make a serious effort to figure out what's really going on | ☐ | ☐ | ☐ | ☐ | ☐ |
| c. My module runs in an efficient manner | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. Practice leadership promotes an environment that is an enjoyable place to work | ☐ | ☐ | ☐ | ☐ | ☐ |
| e. Candid and open communication exists between physicians and other practice staff | ☐ | ☐ | ☐ | ☐ | ☐ |
| f. The work I do is appropriate for my role and training | ☐ | ☐ | ☐ | ☐ | ☐ |

# The Other Parts of Building a Team (Addendum II)

In his report on 15 case studies that exemplify successful team building in primary care, Bodenheimer outlines the features that he believes helped these practices transform from loose groups of caregivers into high-performing teams. Below we summarize the multi-step process of team building as we see it based on a review of the work of Bodenheimer and others.

7/8/13

1. Create a team-oriented structure via co-localization of staff
   a. We accomplish this at AIM by grouping teams according to physically distinct modules
   b. Each resident and attending physician is assigned to a specific module
   c. Sylvester Foote is working toward making the assignment of PFAs, MAs and LPNs more consistent
2. Define the roles and tasks in clinic of each member of the team according to specialty
   a. We accomplish this at AIM by providing a description of the roles of MDs, MAs, LPNs, and PFAs
   b. Clarify these roles and tasks continuously to ensure the patients get the care they need
3. Medical huddle
   a. Invest in team planning in order to promote better patient care and an improved work environment for everyone
4. Innovation
   a. Prior to implementing new innovations, AIM must foster the medical huddle and team building
   b. Teams are a necessary substrate upon which other innovations can be catalyzed: group visits, advanced access, the chronic care model, electronic encounters
5. Self-management support
   a. Build capacity in all staff in order to help them work "at the level of license"
   b. Adopt the health coach model by training, for example, MAs and investing time and space in pre- and post-visits with patients
   c. By accomplishing the two goals above, the team will function as a more decentralized unit in which more members share in providing vital patient care
6. Clinical information systems
   a. Employ or train staff to become panel managers in order to proactively, rather than reactively, manage chronically ill patients at a population level using a registry

**References**

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