Harmonizing the Tripartite Mission in Academic Family Medicine: A Longitudinal Case Example

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ABSTRACT

Academic practices and departments are defined by a tripartite mission of care, education, and research, conceived as being mutually reinforcing. But in practice, academic faculty have often experienced these 3 missions as competing rather than complementary priorities. This siloed approach has interfered with innovation as a learning health system in which the tripartite missions reinforce each other in practical ways. This paper presents a longitudinal case example of harmonizing academic missions in a large family medicine department so that missions and people interact in mutually beneficial ways to create value for patients, learners, and faculty. We describe specific experiences, implementation, and examples of harmonizing missions as a feasible strategy and culture. "Harmonized" means that no one mission subordinates or drives out the others; each mission informs and strengthens the others (quickly in practice) while faculty experience the triparate mission as a coherent whole faculty job. Because an academic department is a complex system of work and relationships, concepts for leading a complex adaptive system were employed: (1) a "good enough" vision, (2) frequent and productive interactions, and (3) a few simple rules. These helped people harmonize their work without telling them exactly what to do, when, and how. Our goal here is to highlight concrete examples of harmonizing missions as a feasible operating method, suggesting ways it builds a foundation for a learning health system and potentially improving faculty well-being.

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VISUAL ABSTRACT

INTRODUCTION

Academic practices and departments are defined by a tripartite mission of care, education, and research, conceived as being mutually reinforcing. But in practice, carrying out this tripartite mission is a challenge, with missions often experienced as separate or competing. In this paper we present a longitudinal case example of harmonizing academic missions in a large family medicine department such that missions and people interact in mutually beneficial ways to create value for patients, learners, and faculty. This suggests harmonizing the academic missions is a feasible, productive strategy that results in a departmental culture shift.

Context and Literature

Academic practices and departments, like all health care organizations, experience increasing pressures to meet the Triple Aim of care experience, population health, and affordability.[1-3] This brings opportunities to academic health centers, with their tripartite mission of care, education,[4] and research.[5-7] For example, Wartman in 2008 described "virtuous cycles" whereby the missions interact in ways that make each other better.[8] In 2013, Magill and Baxley described virtuous cycles in the patient-centered medical home where the missions are mutually reinforcing rather than competing priorities and values.[9] Others point out that academic departments with their tripartite mission are positioned to create, apply, and teach new ways of delivering care where the target is not only improved clinical care but enabling the missions to reinforce each other[10] in carrying out one underlying purpose—population health[11,12]—rather than 3 parallel purposes.[13]

Others observe that making best use of the tripartite mission aligns with a learning health system approach "…in which internal data and experience are systematically integrated with external evidence, and that knowledge is put into practice…"[14,15] that can be done in academic health systems[16,17] including in clinician

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education.[18] A framework of specific organizational and relational features to build within academic centers to achieve those virtuous circles in the context of learning health systems was recently proposed.[19]

Much of this same literature also points at significant challenges in achieving such virtuous circles. A tripartite mission in silos that leads to tensions and reduced vitality when missions become disjointed[20] is problematic given growing concern about faculty well-being[21-23] and the "Quadruple Aim."[24] Literature recommends active involvement in the life of the academic institution and its disciplines; faculty curious, engaged, and pursuing new interests—with organizational practices that support longitudinal investment in careers.[20,25] But a need exists for specific examples of cultural and operating strategies to bring this about.

One Department's Experience With Disharmony Across Missions

The Department of Family Medicine and Community Health[26] at the University of Minnesota Medical School has 94 core faculty, 7 residency programs that produced 53 graduates in 2022, 4 fellowship programs, a large role in medical student education, a research enterprise Blue Ridge ranked #1 for National Institutes of Health (NIH) funding among family medicine departments,[27] and programs in sports medicine, health disparities, healthy eating and activity across the lifespan, and sexual and gender health.

Historically, our faculty had experienced care, education, and research missions as siloed, with ongoing tension as they were pulled in different directions by competing tasks and interests. Learners began to see this tension as inherent in academic medicine. This is illustrated by a "before harmonization" personal vignette from co-author P.G.H. who served as medical director for 4 family medicine residency clinics:

> It was a lonely place. There were many evaluations and educational needs within the clinical mission. But when asking for assistance from the research area, the usual advice was to go get a grant. Likewise, researchers wanted to get into clinics for projects that were often not clinic priorities and brought chaos to operations. Building educational curricula was local to each residency—and challenging to tie together with clinic operations across the residencies…

A Shared Vision of "Harmonized"

The department responded to this tension by creating a shared vision of harmonized missions. Carrying out projects and innovations required improving performance of the whole, while reducing internal friction between the missions and the systems, people, and priorities that accomplish them. This was to be harmonized transformation—simultaneous and integrated change across the whole operation, not sequential and independent adjustments mission by mission.[28]

Being harmonized was the centerpiece of the department's 2013 vision that made a visible commitment to address competing or misaligned missions.[29]

"To connect the University mission of discovery, learning, and public service to our communities by harmonizing practice, education, and research to improve individual, family, and community health."

"Harmonized" means:

1. No one mission subordinates the others.
2. Each mission informs and strengthens the others (quickly and on the ground).
3. Changes in one mission are translated into corresponding changes in the others.
4. Faculty experience the work of the triparate mission as one coherent job, not as competing priorities, and derive greater satisfaction and joy of practice.

Just as we realized years ago that we need whole person care, we saw the need for whole faculty jobs where the missions are experienced as mutually reinforcing—virtuous cycles[9]; one satisfying academic life rather than competing priorities and values.

THE CHALLENGE TO HARMONIZE THE MISSIONS

One aspect of our strategy was to expect the department as a whole to harmonize missions, but not to expect every individual faculty to be excellent in all 3,[12] even though many will be good at more than 1. That is, help everyone who labors deep within the work of each mission experience their work as 1 dimension of a larger and personally useful whole—even as they take satisfaction in their immediate work and colleagues. People are interconnected through different roles, locations, divisional affiliations, and peer groups wearing different badges from different entities with different strategic plans. Such a system of work and relationships can be characterized as a complex adaptive system (CAS) where many people work in their own loosely linked ways toward the same general goals, with practical limits to the effectiveness of central direction.[30,31]

Harmonizing the Missions in a Complex Adaptive System

Academic departments are complex, massively interconnected organizations, in part because of their tripartite mission. It was not seen as practical or effective to establish a centralized project management plan to govern it all. Instead, we needed a way to help people with different jobs in different areas harmonize their work over time without telling them exactly what to do, when, and how.[28] This called for leading the department as a complex adaptive system. Table 1 describes the meaning of 3 elements of CAS we employed, based on our understanding of the literature.[32,33]

These 3 CAS elements became our "how." A metaphor from 2013: A department jazz ensemble of different sections playing the same music, not separate bands playing their own different music. We play jazz, because we improvise harmoniously on our tripartite mission, which is the "piece" that we are playing together. More specifically:

A "Good Enough" Vision

The 2013 vision for and definition of "harmonized" provided shared language from which we oriented and engaged faculty. This defined cultural shift became the "good enough" vision for change and was reinforced by widely expressed frustration with disharmony across missions.

Routine and Productive Interactions Between People Across Missions

We brought people and their powers together from the different missions with central and local roles to act together on the good enough vision. This became the productive interaction "how" of harmonization:

Central: We created a Harmonization Group to oversee operationalizing the 2013 vision comprised of vice chairs for care, education, and research (with their administrative partners), a residency director, the department administrator, and a project manager. It looked for opportunities to harmonize projects and innovations, balance priorities, and anticipate what will need to be harmonized—with steps which they all then carry out together.

Local: We built up local habits of looking at all 3 missions while doing work in any of them. For example, a clinic operations group would ask how an adjusted clinical process can be made to improve education and what evaluation questions arise from a new clinical or educational process.

Simple Rules for Harmonizing Missions

These rules have guided the action of people in their own spheres of influence; are easy to understand, obviously linked to the harmonized vision, and readily applicable across situations. Table 2 shows the simple rules that have guided our experience to date.

Examples of Applications of the Simple Rules

Local clinics and/or the department harmonization group facilitated the following examples of interwoven care, education, and research (Tables 3-6).

Simple Rule A: Translate an Innovation Spontaneously Arising in Any Mission Area to All Mission Areas

Innovations that arose in our residency programs are shown in Tables 3-5, each driven by one of the missions, but quickly and intentionally spread to the others.

Co-author C.M. contributed this vignette on his harmonization experience:

When I first pondered tenets of Clinic First ("Clinic as Curriculum") as a residency program director, I was attracted to predictable scheduling—trainees with set days in clinic rather than variability driven by specialty rotations. I knew I had to balance clinic availability with rotation learning while improving clinic operations,

Table 1. Complex Adaptive System Elements Employed

CAS Element	Description
1. A good enough vision	A general department-level direction or aim. A direction that people can act on locally without telling them exactly what to do or creating complicated plans and coordination. It invites people in all their different roles to act creatively and spontaneously on that shared vision—in their own ways and settings. A "good enough" vision is not to be misunderstood as settling on some modest minimally acceptable goal or compromise.
2. Productive interactions	Routine interactions among those working across the missions that produce valuable, new, and unpredictable actions or capabilities unlikely to emerge from any one of them acting within their own role or mission. The whole is greater than the sum of separate parts and is generative of new connections and actions.
3. A few simple rules	A small number of agreed-upon guides that inform and drive action and choice among alternatives. These are mutually understood by those persons in routine productive interactions across the missions. The simple rules give coherence to action across disparate actors, settings, and situations and provide a shared basis for creative or novel approaches and actions, even without central direction.

CAS = complex adaptive system.

Table 2. Simple Rules for Harmonizing Missions in a Department

A. Translate an innovation spontaneously arising in any mission area to all mission areas.

Innovations and improvements often arise spontaneously among people doing the work of clinical care, education, and research. Immediately ask "What are the corresponding innovations or improvements for work in the other missions?" For example, how can a change in how care is done quickly affect how residency education is done, and what research questions arise to be answered by those doing the work?

B. Design initiatives and projects as tri-mission efforts from the very start.

While many innovations or improvements arise spontaneously, others are deliberately planned initiatives to address a specific issue or make a systemic change. Design these as tri-mission efforts—how the change idea of the initiative plays within each mission area, and what the corresponding actions are in each—a 3-dimensional plan.

C. When coping with crisis, use harmonization to stabilize—don't back off on it.

Habits of harmonization created before a crisis can allow work in all missions to quickly realign to stabilize and work through a crisis. Address crises as a harmonized whole rather than go with a temptation to fragment into areas coping just on their own.

D. Think "harmonize" when groups become distant, siloed, or estranged.

Faculty, residents, and staff in different parts of a department can become so distant they misunderstand each other's actions or motivations. The cause is less likely personal than a system of work susceptible to disconnects and misunderstandings. In short, lack of harmonization. Ask first how well (or not) their work is harmonized—mutually understood and aligned as different parts of a common purpose.

E. Give department-level performance feedback in tri-mission form, not missions in silos.

People appreciate knowing "how well we are doing." Give department-level feedback across the 3 missions in 1 accessible informational format, but not as a judgment or exhortation, so people can take satisfaction (or not) and see for themselves where course corrections are needed. Include a metric or story for "harmonizing" itself in this dashboard.

Table 3. An Innovation Driven by Clinical Care; Spread to Education and Research

Medication-Assisted Treatment With Integrated Behavioral Health for Opioid Use Disorder	
Care	A community-based residency program responded to the local and national OUD epidemic by developing and implementing a MAT program that included medications for opioid use disorder coupled with integrated behavioral health. The need was great, with high prevalence of OUD among the patient population and community.
Education	MAT was implemented as a standard part of residency training, qualifying all residents to do MAT after graduation. Onsite behavioral health services complementing MAT were integrated, in keeping with goals to provide care and education within an integrated behavioral health model.
Research/ scholarship	Lead clinicians applied for and received a state innovation and evaluation grant, harmonizing the clinical and educational innovation with the research mission, resulting in 4 publications by faculty and resident co-authors, plus resident quality improvement projects.

BIPOC = Black, Indigenous, people of color; MAT = medication-assisted treatment (which includes medications for OUD (MOUD) coupled with behavioral health therapies or support); OUD = opioid use disorder.

Result: This innovation resulted in readily accessible MAT for clinic patients, 25% of whom are BIPOC, with high retention rates (75% for 3 months; 50% for 1 year). All or most graduating residents received the waiver necessary to provide MAT at their post-graduation jobs. Published implementation and evaluation created an evidence base to guide for other residency programs.[34-37]

Table 4. An Innovation Driven by Research; Spread to Care and Education

Healthy Lifestyles for Kids—the "5-2-1-0" Protocol	
Research/ scholarship	Driven by the research mission and "to practice what we know," this proven intervention was based in a motivational interviewing framework. The 5-2-1-0 protocol brings child health promotion messages to well-child visits. "5" or more fruits or vegetables; "2" or less hours of screen time; "1" or more hour(s) of physical activity; and "0" sugar-sweetened beverages per day.
Education	Residents were first taught motivational interviewing skills for the 5-2-1-0 intervention and how to apply in well-child visits that include goal setting.
Care	Residents (and faculty) used the 5-2-1-0 intervention in well-child visits (aged 2-18 years) that included goal setting with parent and child around one of the 5-2-1-0 recommendations. This intervention was tracked in the electronic health record, indicating the parent/child goal, progress on the goal in follow-up visits, and child anthropometry.

Result: This intervention was implemented simultaneously by 4 of the department's residency clinics, stimulating mutual learning, care improvement, and coalescing findings for more robust results. Medical record evidence supported 2 published papers and multiple presentations on a population-level approach to child health promotion.[38,39]

Table 5. An Innovation Driven by Education; Spread to Care and Research

Clinic as Curriculum (Often Known as "Clinic First")	
Education	Resident experience in clinic was often seen as unsatisfying compared with the hospital experience,[40] attributed to lack of patient and team continuity from erratic clinic schedules pieced together after prioritizing hospital service and rotations. In response, educational leaders launched Clinic as Curriculum across 4 residency clinics with a goal to rebalance resident schedules to (1) make the clinic-based portion reflect more accurately the clinical work they will engage in following graduation and (2) improve faculty and resident well-being.
Care	Resident education scheduling was inextricably bound to clinic operations and workflow—how care is delivered. And because "Clinic First" literature revealed not only core actions to take,[41] but the need for local tailoring of core "building block" ideas,[42,43] the 4 residency programs entered a facilitated change process using a common data and evaluation framework to track changes in education and patient care.
Research/ scholarship	Mixed-methods evaluation continuously collected and shared data for iterative improvements across those "building blocks." Interventions have documented continuity and changes in it, producing insights about perceived importance of continuity and good clinic experience for residents; with practical challenges for balancing complex schedules involving rotations, electives, other duties, and time off.

Result: Promising ways to approach scheduling have been piloted—showing effects on continuity and patient and clinician satisfaction as well as feasibility. Computer modeling by an industrial engineer has deepened the work. Two publications have resulted so far.[44,45]

Table 6. Pillars of EDI Action in a Family Medicine Department

Pillar	Examples: Progress With Diversity, Inclusion, or Equity
Care delivery and health	Quality metrics stratified by clinic-specific race, ethnicity, language, and insurance status to better address health disparities clinic by clinic
Workforce recruitment and retention	JEDI climate surveys and root cause analysis leading to changes in faculty recruitment processes
Learner recruitment and training	Resident recruitment season with explicit training and guidance in recognizing and reducing implicit bias in interviewing
Research participation and trust	Significant community-engaged research with community collaboration on jointly conceived projects

EDI = equity, diversity, and inclusion; JEDI = justice, equity, diversity, and inclusion.

Result: These and other examples across missions have involved interaction between people working in different areas and with different driving interests in JEDI; a whole department journey and "dashboard,"[46,47] not separate mission by mission.

continuity, and clinician and patient satisfaction. I could have spent years scheming the details by myself without generating confidence or momentum. Or I could have just tried something without bothering to evaluate it in a scholarly way.

Because the department sees practical value in harmonizing missions, I was able to meet regularly with a team of researchers, educators, clinicians, and administrators with a track record of harmonizing the missions. We looked at the inherent balances to strike, designed and tested changes, and developed metrics for effects on care and the clinic experience for clinicians and patients—with an eye to publishing what we found.

Once a resident "set schedule" intervention was implemented, the team gave me the wherewithal to see the project through to positive results fit to bring to NAPCRG.[48] The sense of accomplishment for my program and for family medicine has re-energized me mid-career. Research is now "something I do" and I am thankful for department habits of harmonization that enabled this.

Simple Rule B. Design Projects as Tri-Mission Efforts From the Very Start

Our faculty wanted to take the whole department on a developmental path to improve justice, equity, diversity, and inclusion (JEDI) which began in 2019 and was accelerated by the COVID-19 pandemic and killing of George Floyd in our own city. This was to be an inclusive means to an inclusive end; a participatory journey to take place across all missions simultaneously.

This scope of work appeared as pillars of EDI (also referred to as DEI) action in a family medicine department (Table 6), with "north star" goals tailored to each pillar.[49] Workgroups of volunteers dispersed across all the missions, harnessing the energy distributed evenly across all.

Simple Rule C. When Coping With Crisis, Use Harmonization—Don't Back Off on It

Habits of harmonization increased our coping capacity rather than being a luxury to suspend.

The COVID-19 pandemic precipitated drastic change in education and research as priorities suddenly shifted to new ways to provide clinical care. Usual learning experiences were disrupted, and some research studies temporarily shut down. But soon after the initial surge, habits of harmonization established before the crisis helped hold us together. For example, we rapidly adjusted residency education, including online COVID-19 care, with measurement and evaluation that was published[50] and presented.[51] Over 20 other COVID-19–related research projects were carried out. Our department co-facilitated a weekly COVID-19 research consultation with the Minnesota Academy of Family Physicians, patterned after the Extension for Community Healthcare Outcomes (ECHO) consultation model.[52]

These experiences helped us see that harmonization processes (and habits) helped keep all missions and talents engaged during a time of great strain for all, keeping people together and thriving to the extent possible.

Simple Rule D. Think "Harmonize" When Groups Become Distant, Siloed, or Estranged

People naturally focus on their own distinctive work, but distance and misunderstanding of each other's motivations reduced satisfaction or vitality. For example, our researchers and clinicians were often isolated in different locations, roles, and priorities—and sometimes were in uneasy relationship. The department created opportunities to help all faculty conduct and publish scholarly work in a way that was feasible and gratifying. Examples:

An online research application and coaching portal asks guiding questions of faculty and learners to help improve questions, designs, practicality in clinic settings, and likelihood of publication—while matching scholarship interests across clinics to enable collaborative studies of higher quality and impact. The portal takes "binocular view" of research quality coupled with clinic relevance and feasibility.[53]

Clinic-research partnerships brought research protocols into daily operations and helped clinicians apply study results to their work. In one example, clinics and clinicians enthusiastically joined a multisite community-engaged federal study on cervical cancer screening disparities in an immigrant population.[54] Researchers were welcomed into this clinical milieu as valued experts who appreciated the challenges of running clinics and residencies while doing research.

Simple Rule E. Give Department Performance Feedback Integrated Across Missions, Not in Isolation

Performance feedback is typically done to encourage or reward individuals, programs, or divisions. But we created a multimission department dashboard regularly distributed to all as a clear signal on how we are doing together and compared with last time. People could take satisfaction (or not) in the spirit of formative feedback. This dashboard, a colorful PDF suitable for internal and external use, is issued 3 times per year, calling out in 1 place results across care, education, and research, plus cross-cutting activities: JEDI, community engagement/advocacy, philanthropy, and well-being. Each dashboard concludes by saluting a current example of harmonization.

Future Horizons

Harmonization as a general strategy remains an important investment for our future. But we want to increase its reach and depth:

1. Reach beyond the tripartite mission. In recent years the department has invested in activities and leadership that cut across and influence how the 3 traditional missions are carried out. Specifically, community engagement and advocacy to bring care, education, and research into consistent and meaningful working relationship with served communities—their own leaders, priorities, assets, and population health goals. Justice, equity, diversity, and inclusion makes our operations more equitable—for our patients, learners, research enterprise, and workforce.[49] In a future world, JEDI and

community engagement will be harmonized with the tripartite mission as standard practice. But at this point in history and in our own development, explicit leadership is needed.

2. Extend reach to all faculty. We want it to be feasible and gratifying for all faculty to participate in the clinical, educational, and scholarly dimensions of their work—so that no one has to feel isolated in their own work, and everyone (who wishes to) can see a path to larger participation or promotion. It will take people in all roles and levels to recognize the opportunities, extend the processes, and create examples and culture shifts in their own spheres. This involves changing habits of leadership or culture that enable harmonization to take place and be sustained, many of which are described in the Supplemental Appendix and earlier work.[28]

3. Explore effects of a better harmonized working life on well-being and vitality. Harmonizing missions was not originally intended to improve faculty vitality. But experience has suggested it may help. For example, animated partnerships described in earlier examples appear to amplify excitement and participation. We intend to evaluate perceptions that harmonization contributes to excitement and vitality. As said earlier, just as we need "whole person care" for patients, we also believe we need "whole faculty jobs" for ourselves. An example is the "after harmonization" part of the medical director vignette shared early in the paper by co-author P.G.H.:

…Then it began to change. A research colleague offered to help me evaluate a clinical initiative. This department support allowed me to simply work with my colleague rather than writing a grant. This was lifeblood for us to study our clinical work. Later when harmonization was more robust, we organized a meeting to align a chronic pain care initiative with research and education across clinics. And this felt big. It felt complete. It felt important. We felt proud. This was harmonization. I was no longer alone.

CONCLUSION

Harmonization has become a feasible leadership and operating approach to make the most of our academic tripartite mission. Our academic missions have increasingly been experienced as mutually beneficial rather than mainly as parallel and competing priorities, with significant expansion of scholarly output across all faculty. Still a work in progress, harmonization is an example of creating a learning health system in an academic department—and hopefully an example improving clinician well-being.

Read or post commentaries in response to this article.

Key words: tripartite mission; implementation science; academic medical center; academic medical training; faculty morale; learning health system; harmonizing academic missions; building scholarship capacity; health equity

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Supplemental materials

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