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References

1. Coyle D. *The Culture Code: The Secrets of Highly Successful Groups*. New York, NY: Bantam; 2018.

NEW IDEAS

The Think Tank: An Organizational Framework to Enable Resident-Led Quality Improvement and Wellness Project Innovation

Setting and Problem

A modern shift in health care practice has led to increased patient censuses, rapid inpatient turnover, and other workflow complexities that contribute significantly to trainee burnout. Residents are uniquely positioned to provide insight on how to improve inefficient medical systems. However, longitudinal participation in quality improvement (QI) projects can be challenging for residents to prioritize given significant clinical responsibilities and other career development needs. Annual resident turnover damages project continuity, successful project handoff, and longitudinal institutional memory of prior resident initiatives.

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Intervention

We describe a resident-driven organizational framework, the "Internal Medicine Think Tank," which is designed to optimize resident participation in QI projects while mitigating the inherent challenges of resident participation. The Think Tank is an internal medicine resident voluntary group that meets every 2 to 3 months to brainstorm improvements and implement project ideas using a standardized protocol (FIGURE). Any resident can attend meetings without obligation for future participation and can also submit ideas online. Meetings start with a brainstorming session of solutions to resident problems cited from survey data. Potential solutions are judged for practicality and are assigned a resident leader and several supporting residents.

Ideas from this approach are documented using CareZooming, an online platform to share project ideas within the hospital and nationally, reduce project redundancy, encourage collaboration, and create a longitudinal history of ongoing and completed projects. All project proposals are discussed with internal medicine chief residents and program directors at a bimonthly meeting organized by the Think Tank that also includes partnering resident groups. Program directors provide feedback and historical context to help avoid redundant efforts and facilitate connections to other hospital resources to expedite project implementation. Projects are then allocated additional non-resident personnel, including administrative staff, to help drive progress forward while residents are unavailable. Residents interested in continuing with these projects contribute to working groups on a flexible ad-hoc basis with the ongoing support of the wider Think Tank and associated residency program directors. Project updates and needs are advertised residency-wide in a monthly newsletter populated from the CareZooming database.

Outcomes to Date

Based on internal surveys, at least a 3-fold increase in resident participation (5 to 17 residents) and resident leadership (3 to 10 residents) in QI projects has been observed over the 3-year program span. The Think

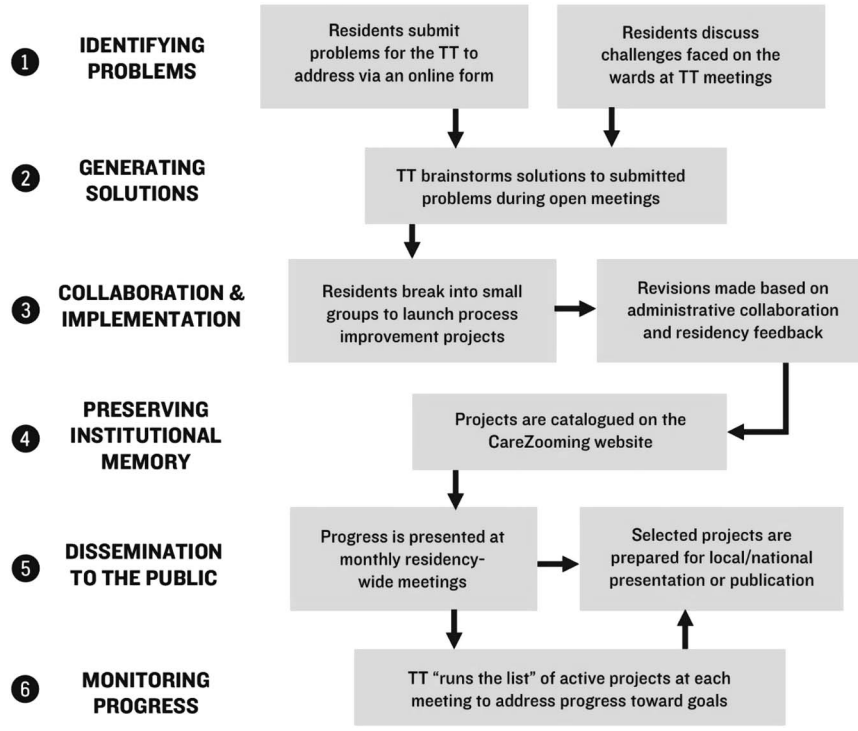

FIGURE
Think Tank (TT) Innovation Process

Tank has documented more than 40 new resident-led ongoing QI efforts and fostered more than 30 collaborations across the country. Internal survey results show that over 75% (20 of 26) of polled internal medicine residents believe that the Think Tank has directly facilitated resident QI participation and is independently responsible for improved resident well-being.

With this landscape of support, the Think Tank has directly initiated several successful resident-led clinical trials, including a multi-institutional trial to utilize "DOCTOR" badges to reduce clinician misidentification[1] and implementation of a new 2-way paging application for improving provider communication. The Think Tank also initiated a hospital-wide effort to provide each resident team with a care transition specialist to perform administrative tasks.

One strength of the Think Tank organizational framework involves the addition of administrative staff to resident projects. Without sole responsibility for project outcomes, many residents report that participation has "less strings attached," lowering the barrier to resident engagement. Projects, as well, benefit with dedicated staff to propel initiatives forward.

The Think Tank organizational framework engages the unique resident experience with a solutions-oriented perspective and minimal resident burden, creates a longitudinal record to foster collaboration and avoid redundancy, and involves program leadership to expedite highly successful projects that improve the resident experience, patient care, and hospital productivity. Similar frameworks to the Think Tank can be easily implemented in graduate medical education programs nationwide.

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References

1. Foote MB, DeFilippis EM, Rome BN, Divakaran S, Yialamas MA. Use of "doctor" badges for physician role identification during clinical training. *JAMA Intern Med*. 2019;e192416. doi:10.1001/jamainternmed.2019.2416

NEW IDEAS

The Daily Chief Scrum as a Way to Manage a Residency Program Crisis

Setting and Problem

Following the unexpected death of a resident, our general surgery residency program quickly turned to a model of crisis response to address the well-being of our residents, and to manage the logistics, emotions, and challenges related to the tragedy.

The program director's priority was keeping track of a full complement of residents (approximately 30) to identify current issues or potential/avoidable problems. This demanded immediate, transparent, and nearly continuous communication and a reliance on chief residents as key players in disseminating and gathering information from other residents. For the first 5 days following the crisis event, residents expressed that communication could be improved, and many of the residents expressed concerns about the emotional and logistical effects of the loss on themselves and on their work.

To aid in communication, and to ensure the chief residents themselves were well supported through their own time of crisis, the program implemented a simple and reproducible model to improve communication with residents in a time of crisis.

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Intervention

The intervention consisted of the implementation of daily 10-minute "scrums" led by the program director. The goals of the daily scrums were to understand the current issues, anticipate new concerns, identify "at-risk" residents, and support the chief residents leading the crisis.

The concept of the scrum in software development as part of the agile methodology is relatively recent, gaining traction in the past 10 years.[1] Scrums were designed for small teams during short projects. The meetings are intended to be participatory and brief. They are meant to be a simple, efficient means to discern what has been done and what needs to be done. Every participant is asked to answer the same questions.

Daily scrum meetings were structured as follows:

- Held daily at the same time from 6:30 to 6:40 AM
- Held in a conference room near resident sign out
- All members were asked to stand to ensure brevity
- Each member was asked to answer the same 3 questions
- Reponses were recorded by the program director
- The timing and structure were adjusted as needed based on feedback from the chief residents

Regarding daily scrum content, each resident answered the following questions:

- What issues did you encounter yesterday?
- What issues do you anticipate for today?
- Are there any residents about whom you are concerned? How are you doing?

The daily scrums were held for 2 weeks, at which time the chief residents felt they were no longer necessary. These were replaced by weekly meetings for the duration of the year.

Outcomes to Date

Immediate outcomes include:

- Improved communication with the chief residents
- Increased support of chief residents as they learn to lead during a time of crisis