Chapter

Graduate Medical Education Program Mergers: Key Aspects and Considerations

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Abstract

The recent restructuring of the healthcare reimbursement system has led to financial pressure on all aspects of healthcare delivery. Naturally, this financial pressure will also trickle down to graduate medical education, resulting in mergers of residency programs. Historical examples of residency mergers will be presented and discussed in this chapter. Guidelines for merging residencies will be suggested for those programs undertaking this difficult process. These guidelines will address aspects of organization and leadership, educational philosophies and environment, program goals, culture, interpersonal relationships, communication, day-to-day operations, and finances. Special considerations for program mergers will also be discussed, including cultural differences, medical students, and surgical programs. The chapter concludes with a discussion on the relevancy of this information and important key concepts.

Keywords: graduate medical education (GME), merger, leadership, communication, culture, guidelines

1. Introduction

Reorganization of the U.S healthcare system began in the early 1980s as hospital ownership and affiliation began to move toward health care network conglomerates. Prior to this, there were a large number of freestanding hospitals, both nonprofit and for-profit, which existed independently from other hospitals in the area. The system was such that each hospital functioned without any reliance on – or interactions with – neighboring hospitals. However, by the early 1990's, many of these hospitals had entered into agreements to merge with each other. Additionally, many of these hospitals began to acquire autonomous physician groups to form a health care network conglomerate. This restructuring of the U.S. health care system continued throughout the begin of the 21st century. Much of this was driven by the introduction of new payment models in the Patient Protection and Affordable Care Act in 2010, which only served to further initiate mergers and acquisitions as a way to contend with ongoing payment reform.

These mergers were advantageous for a variety of reasons, but financially they were favorable based on the amount of market overlap between separate institutions. Based on previous research by Brooks and Jones [1], two major factors in increasing the likelihood of a merger were identified: the opportunity to increase efficiency and the opportunity to enhance market power.

The expected outcome of enhancing the market power was to increase profitability. By decreasing the amount of competing facilities, there was an opportunity for each healthcare network or set of hospitals to dictate certain prices for healthcare goods and services. The merger of hospitals tended to make the market power of the combination much greater than that of either hospital independently. This substantive alteration of power also served to change the market structure itself. Subsequently, this remodeling of the structure would then place pressures on other competing firms to engage in merger agreements as well.

Gains in efficiency would be made by incorporating the relative strengths of each independent hospital or physician group into a larger structure. Most often, one member of the merger benefits immediately from management expertise of the other merged affiliate. These increases in efficiency can only be seen when facilities combine their collective operations. The amount of market overlap is somewhat predictive of the amount of increase in efficiency seen with mergers. In those facilities with overlap between served markets, consolidating to decrease duplication of services will likely not only be easy, but also rewarding.

Hospital system mergers are well-established in the available literature. Of those that are reported, three significant mergers in major metropolitan cities are the most well-known and time tested [2]. In Philadelphia, in 1995, the University of Pennsylvania Health System acquired the Presbyterian Hospital, followed shortly thereafter by the Pennsylvania Hospital in 1997. This was part of an overarching goal to form an integrated city-wide academic healthcare system. In Boston, in 1994, Massachusetts General Hospital and the Brigham and Women's Hospital merged to form a new healthcare system: Partners Healthcare. Both institutions were affiliated with Harvard University; the goal was to preserve each distinguished institute's identity and renown while also forming a more inclusive healthcare system. Finally, in New York, in 1998, New York Hospital merged with Presbyterian Hospital to form New York-Presbyterian Hospital. Each institution was affiliated with a separate medical school (Cornell and Columbia, respectively); despite the merger, they have maintained a clinical independence from one another.

With an increasing number of hospital system mergers, a known sequela is the merging of the healthcare educational system. There is a considerable amount of literature reporting the trends in health care market concentration [3], in addition to the impact those trends have on healthcare costs and quality of care (arguably two of the most important factors in the health care system). However, there is a paucity of literature in regard to the outcomes of residency programs when their associated institutions have a merger or acquisition event.

The economics of residencies have been increasingly difficult during recent changes in the healthcare system. Historically, postgraduate medical education has been subsidized through a combination of public (Medicare and Medicaid) and private insurance payments. Teaching hospitals have, however, faced issues with decreasing reimbursements for a variety of reasons. A major difficulty that teaching hospitals encounter is the large amount of patients who are uninsured; some of their unpaid medical bills are financed by the hospital, while some is simply a debt that will never be repaid [4]. Another complex issue is the shifts in what type of reimbursement model is utilized by insurance companies. These issues overall result in a lower amount of total reimbursements, which trickles down to graduate medical education. These overall cost deficiencies put a tremendous amount of pressure on residency programs for collaboration to resolve these financial burdens.

With the ever-changing paradigm of healthcare delivery in the United States, the education of future physicians and surgeons remains a dynamic process. Residency mergers have become more common and will continue to occur more frequently. Establishing best practice to successfully merge residencies is important

for seamlessness in training. In this chapter, we will review the available literature regarding reported residency mergers, with a focus on models and guidelines proposed to make an effective residency merger, including strategies to overcome the difficulties that present themselves during the process.

2. Methods

We began our literature review in August 2020 by conducting a search for "residency program merger" on PubMed and Google Scholar from all years available (1968–2020). There were a total of 33 results for this search query. We then narrowed down these results to those only describing mergers of graduate medical education. Additionally, we incorporated several papers that did not appear in our original search, but were listed as references in one or more publications that appeared in our search. Our aim was to include as many examples of residency mergers to develop a comprehensive view of graduate medical education mergers and the successes and challenges that have been identified.

2.1 History of residency mergers

The first reported residency merger was between two psychiatry residencies, one from The Institute of Living, and the other from the University of Connecticut [5]. In 1989, leaders from each program came together to discuss what the combined program would look like and how they would implement the changes; in July 1990, the combined program began. Both programs had their own set of strengths. The Institute of Living, which is located in downtown Hartford, Connecticut, is one of the oldest private psychiatric hospitals in the US; its reputation and location provide a diverse patient base and the opportunity for long term follow up. On the other hand, the University of Connecticut Health Center, which is located in a Hartford suburb, is an academic institution with a strong commitment to the education of both medical students and residents.

Based on these complementary characteristics, the respective institution leaders were hopeful that the merger would be successful. A task force to construct the new residency program was assembled and was comprised of both faculty and residents from both institutions. Salaries of the residents had differed between residency programs, so once merged, all salaries were standardized. Similarly, call requirements differed, so those too were standardized. Overall the merger was successful; both institutions used the merger to improve their educational experience as one cohesive unit.

There is limited literature available regarding residency mergers, but the most widely referenced specialties include pediatrics [6], psychiatry [5], family medicine [7], and surgery [8]. For the most part, the publications generally present the process behind the merged programs, the challenges they faced throughout the process, and the advice they offer for future mergers. Success of the merger is very subjective and is not typically measured objectively, with the exception of some literature which follow residents' perspective of the process through surveys evaluating how positively or negatively they felt about the merger.

Unfortunately, the limited amount of information available about residency programs that have merged or are undergoing a merging process is compounded by the fact that there is no official record or list which is published by the Accreditation Council for Graduate Medical Education (ACGME). Not only does the ACGME not keep records of this, but previous personal communication with ACGME administrators have revealed that no data on residency mergers is maintained [9].

Although not specifically a merger, a well-publicized closure of a large academic institution made national news in the United States in 2019. Hahnemann University Hospital, a 500-bed teaching hospital in Philadelphia, Pennsylvania, announced its closure abruptly in June 2019, soon after it had recently welcomed 140 new residents to its varied residency programs. This chaotic sudden closure suddenly displaced more than 550 residents and fellows, who then had to quickly find residency positions elsewhere. Fortuitously, all trainees were able to find educational opportunities within 43 days [10]. This is a worst-case scenario result of financial pressures placed upon teaching hospitals. The goal of raising this discussion about residency mergers and collaboration is to avoid a similar unfortunate event.

2.2 Guidelines for residency mergers

Rider and Longmaid, both of Harvard Medical School, have had personal experience with mergers as well as conflict resolution and therefore published an article in 2003 detailing their advice for merging residency programs [9]. They identified 10 specific guidelines to keep in mind while going forward with the merging process, which we will discuss briefly.

2.2.1 Lead with vision

The success of any merger is dictated by having a definitive plan that is effectively carried out. This can only be achieved with establishment of a leader who is capable of not only creating this plan but also putting it into action. Whether that is one of the previous residency program directors (PDs), a combination of individuals, or even another individual entirely, the leader should be clearly identified and communicated to all involved parties.

A plan should be established which addresses a few particular issues for the new program: goals of education and training, educational philosophy, governance of combined program, institutional cultures, and the impact of merger on faculty and trainees. The vision of the leader should be used to formulate a plan for these issues as well as a timetable for that plan to be fully operational. A more rapid timetable for the enactment of the plan is preferable, as the goal is of course to minimize the amount of disruptions during the process of combining programs.

The importance of a dynamic leader is not to be neglected, either. Although the leader may have his or her own vision, it should be combined with the input of faculty and residents from both institutions. Differing opinions will allow for the creation of an ideal program, to which all faculty will then be motivated to contribute. A suggestion based on previous successes in other health care mergers would be to create a committee of involved individuals who are dedicated to shaping the goals and vision for the future residency program. This would be a concrete way to incorporate the influence of all departments interested, as well as those of the residents. Flexibility is a necessary characteristic of a leader to establish a plan that not only fits the original vision but combines with the constructive input of others.

2.2.2 Establish and reinforce communication links early

Communication is key! While the vision and plan are put into action by the leader, obstacles that challenge the success of that plan will always be encountered. Having clear channels of communication already established can be helpful when trying to address some of these obstacles. Frequent updates via multiple modes of

communication will ensure that a communication link is available should any issues arise. Email would be the easiest, but not always the preferred method for everyone. An in-person meeting that is scheduled either weekly or bi-weekly could be helpful in making sure that all parties remain involved in planning and enacting change.

2.2.3 Talk about the discomfort of change

Generally, most people do not feel like change is a positive construct. Whenever change is initiated, it is sometimes felt as if it is a negative comment on how programs were already operating. This can be detrimental to staff and program morale, which can lead to a host of negative results including staff attrition/resignation or feelings of inadequacy/anxiety. Leadership for the merger should be responsible for helping faculty and residents cope with the change by "giving them time to react, validating and respecting their feelings, keeping them up to date and creating a safe environment in which they can talk about the change" [9].

While it initially may not seem like a good idea to allow involved parties to express their displeasure in the merging process, it does allow those individuals to feel as if they have been heard and their opinions matter. Even acknowledgement itself can sometimes satiate a person's displeasure in the process. This can lead to acceptance, begrudging as it may be, rather than tension or conflict with many involved parties.

2.2.4 Challenge everyone to think about and own the process of change

During a residency merger, it is not just the institutional structure of the overall program that has to and will change, but also the personal structure of how individuals carry out their daily activities and tasks. This may not necessarily be accepted, but rather "physicians may react to the changes brought about by a merger in a predictable pattern, usually reflecting a combination of denial, anger and frustration as their professional lives become progressively more disrupted by a process they may not support" [9].

Personal commitment to the success of the merger will be essential in overcoming the disruptions presented by the operational and structural changes, which is why it is so important to make sure that all individuals' concerns are heard. The more the merger feels like it is a cooperative effort, the more individuals are willing to push through and own the discomforts of the process.

2.2.5 Acknowledge and consider different cultures

No institutional culture will be the same. Even if one larger program is enveloping a smaller program, it will be crucial to incorporate the cultures of both programs. The residents and faculty in each program chose their particular program for a unique set of reasons. Often, a major reason why a medical student would choose a program is that the culture fits with their particular value system and needs. Being able to assimilate the strengths of both programs, while abandoning the weaknesses, will allow for both sets of residents to succeed in the new environment. Without endorsement by each program's residents and faculty, the program will flounder in the setting of resentment and tensions between the two separate groups. In a merger between Howard University Hospital (HUH) and Children's National Medical Center (CNMC), the institutional leaders address a specific example of cultural differences experienced in the merger of their pediatric residencies that we will discuss in detail later in the chapter [11].

2.2.6 Start with a clean slate and respect each other

While this may seem like a simple concept, mutual respect is not always a given. Parties from either residency program may come into the merging process with pre-conceived notions and hostilities. One program may feel as if it is being "taken over" by the other, or one may feel as if it is being "invaded" by outsiders. When two groups merge, the natural instinct is for people to stay within their own group and be loyal to themselves, rather than incorporating with the second group. With time, this chasm between groups should begin to close, as they begin to interact with each other on a more frequent basis. Making sure that these interactions are positive is essential, and starts with making sure all residents and faculty have a mutual respect for one another.

2.2.7 Develop mechanisms for and solicit physician input

The more an individual feels as if they are a part of the process to create a new and improved residency, the more dedicated they are to enduring the process. Regular meetings and an inclusive committee will be essential in making staff feel as if they are able to provide input and help shape the process. The goal is to reduce uncertainty and make individuals feel more comfortable with the changes throughout the merger.

Residents, not just faculty, are an important source of constructive input during this process. While a residency merger does impact faculty and other hospital staff, the most changes will be felt by the residents. Disruptions in everyday life and operations will be most noticeable to them. It is critical that they are able to give input just as much as the input provided by leaders in the department. They may, however, not be able to dedicate the same amount of time to the process, such as attending frequent meetings, given how much time they are dedicating to their education. There should be some type of forum or meeting specifically dedicated to residents, so they feel as if their input is received while also still protecting their time to focus on their professional training.

2.2.8 Listen to and learn from each other

Each residency program will come with its own strengths and weaknesses. One may have a stronger academic program, while the other may have a stronger clinical program. Through the acceptance and assimilation of these separate resources, the combined program can be more successful than either program was individually. Identifying these strengths and weaknesses and discussing them among the leadership of the merger will be essential in deciding which components of each program to include in the combined program to create the most successful program possible.

2.2.9 Maintain equity and fairness

Salaries, benefits, and stipends must be made equal for residents and faculty to allow for mutual respect between these groups. Without this, there will be resentment and hostilities among individuals, which will be a hindrance to the programs coming together as one. This idea of fairness and equality must also apply to call assignments and workloads for the same reason.

2.2.10 Delegate and empower teams for action

It will be helpful to identify individuals who are dedicated to improving the program merger process. This could be a pre-appointed committee, as originally

Key Aspect	Suggested Actions
Organization/Leadership	Establish program director(s) Equal representation from each program Create committee of involved faculty and residents
Educational environment	Outline objectives by each PGY level Design a comprehensive curriculum Protected time for all residents Systematic evaluations of faculty and residents
Program goals	Develop combined vision for the future of the residency program
Culture	Acknowledge differences in institutional culture
Interpersonal relationships	Provide opportunities early on in the process for residents to work together Frequent social functions
Communication	Regularly scheduled meetings to provide updates Multiple modes of communication Acknowledge opinions (both negative and positive)
Day-to-day operations	Equal call responsibilities Access to hospital-provided tablet or computer for clinical responsibilities
Finances	Provide equal salaries and benefits between residents of same PGY level Equity in resident book funds

Table 1.
Key aspects and suggested actions for GME mergers.

discussed, which is comprised of individuals from both programs as well as those from a variety of departments including the resident groups themselves. Personal ownership and responsibility will then be felt by this team which is, together in cooperation, motivated to create the best residency program possible. This does have to occur in the background of all normal clinical activities, which means that the team or teams will need to be efficient and focused. Setting particular tasks and identifying sets of individuals to complete those tasks can be helpful in having them accomplished in reasonable time periods (**Table 1**).

3. Special considerations

3.1 Cultural differences

In the small pool of literature available regarding residency mergers, one of the major difficulties described with the process is institutional cultural differences. Different facilities will have their own backgrounds and their own ways of doing things. Recognizing these cultural differences and finding a way to incorporate them together is crucial to setting a program merger up for success. This allows for the residents and faculty from each program to feel as if they are a part of the new residency program without feeling a sense of identity loss. We know that successful physicians are created in a variety of training environments; a merger that integrates the strengths of each culture to create shared values will be more successful in the long run, as it engages faculty and residents from both programs in a common goal. Cooperation is a major factor in determining program merge success.

A prime example of a residency merger which united programs with vastly different cultural backgrounds was the merger between two pediatrics programs

at Howard University Hospital (HUH) and Children's National Medical Center (CNMC) as described in a case study by Cora-Bramble et al. [11]. Howard University and its associated medical programs are historically black institutions, while Children's National is predominantly white with relatively low representation of minorities. Respectively, the compositions of the two different residency programs differed in terms of the residents' race and ethnicity in addition to inclusion or exclusion of international medical graduates (IMGs). Sizes of the residency programs also differed substantially, as the HUH program was comprised of 30 residents, while the CNMC program was comprised of 72 residents. Perhaps even most notably, the levels of care at each institution differed in that CNMC was a tertiary care center with a high level of specialization including PICU/NICU capabilities, while HUH was more of a community hospital without advanced capabilities or intensive care units.

The merger occurred in 2003 and was prompted by the closure of one of the largest hospitals associated with HUH, which was responsible for the majority of their pediatric patient volume. This triggered citations of the program by the ACGME based on the low volume and lack of available subspecialty exposure. HUH recognized its own weaknesses and began to seek out an opportunity to form a collaborative partnership with another institution. CNMC, which had originally been a rival rather than a partner, stepped in to fill this need. This partnership would serve both institutions as well as the community. Goals of this partnership were identified by the CNMC leadership as "1) to increase the size of the residency program without additional cost, 2) to increase the racial and ethnic diversity of residents, 3) to provide needed support to the historic HUH pediatric residency program, and 4) to establish a community health track." [11].

Difficulties encountered during the merging process included clinical challenges, operational challenges, and interpersonal challenges. For the most part these impediments are the same that present themselves during any merger, as we have already discussed, but the most complex of these in this particular case was identified as the interpersonal. Apart from the typical difficulties such as unfamiliarity with the organizational structure of their new home hospital, the HUH residents also struggled against inherent biases. The CNMC residents were accustomed to the faster work pace that accompanied their more clinically advanced institution, while the HUH residents were particularly challenged by the higher demand. This lack of clinical acumen was concerning to both CNMC and nursing staff, and immediately put the HUH residents at a disadvantage. This disadvantage was further compounded by encounters of racism and elitism which they encountered during day-to-day operations.

A dramatic observation made in this study was the dichotomy between experiences of the two programs' residents. Only 13% of CNMC residents felt like the merger was positive for the institution as a whole, as opposed to 63% of HUH residents. The disjunction between opinions was even more distinct when residents were asked if the merger was positive for the residency program in particular – 63% of HUH residents identified it as positive, versus 10% of CNMC residents. Although these striking differences were initially alarming, as time went by after the initial merging process, the dichotomy between the separate programs' residents did begin to disappear. This was attributed to both the influx of new residents with each year, in addition to a gradual acceptance of the daily reality by pre-existing residents.

The authors of this study did identify some salient points from their merger which have implications to other residency programs undergoing mergers, particularly those with cross-cultural conflicts. Out of concern for the ethnic and racial biases expressed toward HUH residents, a zero-tolerance policy was adopted by the

CNMC leadership. This did benefit the HUH residents and their interactions with other staff, but it also had the undesired effect of making the CNMC residents feel uncomfortable expressing any legitimate negative opinions, even those that were associated with patient safety issues. The suggestion made to combat this difficulty would be to engage in more frequent feedback with all residents (in this case the CNMC residents) to ensure that all residents are able to express concerns and have those addressed by faculty or other leadership.

Another recommendation in this study was to use social events in a constructive manner. Gatherings set up between the HUH and CNMC residents were not always successful due to the different cultural norms. It is important, then, when trying to merge two independent, culturally-divided groups, that a common social ground must be established. Allowing constructive interpersonal relationships between resident groups to blossom in the setting of a shared social ground would alleviate some of the conflicts felt by both factions.

The most critical lesson identified by the Howard University Hospital-Children's National Medical Center merger was that of creating a "safe space" for the residents of both programs. This was presented as an opportunity for residents to discuss and resolve issues, especially those concerning racism, elitism, or other cultural challenges, in an atmosphere of open respect and tolerance. By creating this environment, many concerns were able to be addressed, with the goal to improve the merging process as it happened.

Developing a strong core of cultural competence is vital to a successful residency program merger. By instituting a positive set of attitudes, behaviors, and policies, a health care system can protect its residents as they undergo the difficult transition of a merger. This will not only benefit the residents themselves in terms of the level of satisfaction with their experience, but should also improve the quality of care that residents provide to their patients.

3.2 Medical students

When merging a residency program, often times the medical students affiliated with the institution are not considered. However, their education and how they fare is just as important as the residents. Most residency programs are associated with a medical school, whether it be through an academic institution to which they both belong, or as a clinical site through which medical students regularly rotate. An essential task for the resident is being involved in the education of future physicians. In fact, residents typically spend much more time with students than do the faculty members and can provide complementary educational opportunities than that provided by faculty. In addition, many medical students will often choose a specialty based upon their experience with the residents.

Various studies have been completed and attribute approximately one-third of a medical students' knowledge to resident teaching [12]. Educating medical students includes supervising, instructing, and evaluating medical students, which can take up a significant amount of time and effort on the part of the resident. This task, important as it may be, can then be occasionally lost in an extremely busy work week.

The merging process could lead to positive ramifications such as increased resources for medical students. By consolidating resident responsibilities, it is possible that residents may have more time available to engage with medical students. This would provide for a more satisfying experience for both the resident and the medical student, as a good rapport between resident and medical student can often be the deciding factor for whether or not the student enjoys the rotation and furthermore whether or not they decide to ultimately pursue that specialty.

Conversely, negative ramifications of the merger could include a diluted clinical experience. The same number of patients or procedures may have to be distributed among a greater number of residents, therefore decreasing the overall quality of education for each medical student. Similarly, any negative feelings or perceptions that the resident may harbor toward the merging process may impact the way that residents interact with faculty, co-residents, or medical students alike, even if only subconsciously.

There is a single study by Hines et al. in 1999 which discusses the impact of obstetrics and gynecology residency mergers on the medical student experience. Medical students from the Uniformed Services University for the Health Sciences were studied, as two new obstetrics and gynecology residency programs (one formed by two programs in San Antonio, Texas; the other formed by two programs in Washington, District of Columbia area) were clerkship sites. Medical students were given a questionnaire following the rotation. The questionnaire evaluated the students' perceptions of the case load, instruction, and overall clinical experience. There were no statistically significant differences between experiences before the merger and after the merger.

Likewise, the National Board of Medical Examiners (NBME) subject examination in obstetrics and gynecology, which is given at the end of the rotation, was reported by the student. This served as an objective measure to evaluate the medical student experience. There was no statistically significant negative impact on NBME scores; in one program there was even a statistically significant positive impact on NBME scores. While this area could clearly use more investigation, this seemingly posits that the merger of residency programs has little to no significant deleterious impact on the education of medical students – either their satisfaction or their performance on standardized exams.

While the most obvious characters to consider during the residency merger process may be the residents, it is imperative that we too keep in mind the medical student. Doctor, after all, does have its origin in the Latin *docere*, "to teach," and an essential role of residents is to act as educational leaders and shape the doctors of the future. Protecting the medical student and their learning goals should be an important matter to be addressed by any formal plan for a residency merger.

3.3 Surgical programs

As the authors of this chapter do originate from a surgical residency, we have a special interest in how a residency merger for a surgical residency should unfold. Additionally, surgical residencies have a factor to consider that is singular to surgery – the case log. In order to graduate from a surgical residency, trainees must meet a particular number of cases in each surgical category which is specifically set by the ACGME. This makes merging residency programs somewhat more comprehensive, as the case availability for trainees must be carefully evaluated before and after the merging process to ensure that the case mix requirements can be met for every resident, even if they are starting with vastly different numbers. This issue is one area that will need special consideration with surgical residencies.

A study published in 2015 evaluated the impact a merger between an academic surgical program (Yale New-Haven Hospital) and a community surgical program (Hospital of Saint Raphael) [13]. This publication is significant as it is one of the only studies that includes a Likert survey which was developed specifically to evaluate the perspective of the resident regarding the merging process. Categories included on the survey include relationships among residents, relationships with faculty, systems interactions, clinical training, surgical training, scholarship, and career plans. This survey, which was independently evaluated by 11 residency

program directors for its generalizability, is a tool which may be valuable for future program merger evaluations.

The survey was completed at a single point in time after the merger, so the information provided by the survey responses is somewhat limited in its applicability. It was suggested by a commentary that to improve future studies a similar survey tool could be administered pre-merger and post-merger to eliminate some limitations [14]. However, responses that were received were generally positive. Community-trained residents felt as if their exposure to complex cases and scholarly or research activities had improved. Academic-trained residents, on the other hand, did not feel as if they had new deficits in their experience with the influx of new trainees; in fact, with the incorporation of community institutions, they felt as if they had an increased number of "bread and butter" surgical cases which improved their operative experience and made it easier to meet their case log numbers. Overall this study is hopeful; it identifies particular areas that should be considered in order to keep trainees satisfied with their training to make the experience as positive as possible for all involved.

Another piece of the available literature which focuses on issues unique to surgery is a survey-based study to evaluate the merging process between two general surgery programs in Grand Rapids, Michigan in 1999 [15]. A survey was administered to both faculty and residents after said merger. This survey assessed characteristics such as curriculum, administration, teaching, atmosphere, and career goals, such as graduation and preparation level for attending-ship versus fellowship.

Positives aspects of the process were identified as academic and educational opportunities. This may have been secondary to a very organized educational system, which benefited both sets of residents. Negative aspects of the process were identified as establishing a combined clinical rotation structure, defining resident coverage without significantly increasing clinical load, and reconciling program policies that were discrepant. These areas, particularly those that were identified as negative, can be a stepping stone for other surgical residencies, so that these challenges can be specifically addressed during similar program mergers.

Even surgical subspecialties are not immune to the pressures to merge or acquire one another. Two vascular surgery programs in Long Island, New York merged to form a collective program in 2001 in order to maximize their individual strengths [16]. Although there is no information on how successful their merging process was, the combined program was able to compose an educational schedule which they published with a goal of standardizing vascular surgery training as mergers and acquisitions continue to persist.

4. Relevancy

At this point, there is limited data regarding residency mergers. Additionally, those examining the impacts of hospital system mergers do raise some important issues which should be addressed with future studies regarding residency mergers. A recently published study in 2020 demonstrated a clinically significant decreased patient satisfaction score when examining multiple hospitals before and after their merger or acquisition [17]. While there have been several studies that examine the perspectives of the trainees, these have not incorporated the perspectives of other important members involved in the healthcare system – most notably the patient. Faculty are also a significant aspect of the training program; they have an essential perspective that needs to be considered.

Ideally, as residency mergers are likely to continue occurring, there should be a structure for future evaluation and studies of these mergers. A survey should

be constructed to fully examine feelings of residents, faculty, and patients on the patient care experience and the academic experience (as applicable). The survey should then be administered pre-merger and post-merger in order to have a direct comparison and contrast to itself that is inherently reliable. This would not only give an assessment of the "success" of the merger, in addition to identifying areas that may be particular concerns to trainees, faculty, or patients throughout the merging process. This would allow those concerns to be addressed early so that all involved can feel as if the process is as positive as possible.

5. Conclusion

The health care industry continues to evolve. Economic pressures can have unpredictable results, including mergers in health care systems and therefore associated graduate medical education programs. While there is not a wide breadth of published information regarding previous merged programs, we can learn from the successes of those programs that have published data to set up future mergers for success. A comprehensive examination of the publications which have been reviewed in this chapter have identified some key points of importance in the process of graduate medical education program mergers: leadership, communication, and culture. Establishing an effective leader who can formulate a plan and then institute that plan is the first step to success. He or she must be a dynamic individual who is able to solicit and take advice and criticism from all those involved in the process, both residents and faculty alike. Productive communication with leadership will be key for ongoing success during the process of the merger. This will allow for the process to evolve as challenges arise, to ultimately create a program from which all will benefit. Institutional cultural differences must be acknowledged in order to create a cohesive merged program. Through establishing a positive set of attitudes, behaviors, and policies, cultural competence can be a characteristic of the newly formed program.

There is still much regarding residency mergers that is unknown. In order to have a more concrete evaluation of the success of graduate medical education mergers, a survey that is externally validated should be administered to residents and faculty. This would allow for an objective evaluation of the merging process, so that common issues could be identified and addressed in future mergers. Overall, residency mergers are not well described. The goal of this chapter is to provide a conglomerate of available information and to identify issues that may occur. As mergers continue to occur, we hope that this chapter may prove valuable to not only the leadership responsible for the merger, but also anyone involved in the process.

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References

[1] Brooks GR, Jones VG. Hospital mergers and market overlap. Health Services Research. 1997;31(6): 701.

[2] Thier SO, Kelley WN, Pardes H, Knight AW, Wietecha M. Success factors in merging teaching hospitals. Academic Medicine. 2014;89(2):219-23.

[3] Fulton BD. Health care market concentration trends in the United States: evidence and policy responses. Health Affairs. 2017;36(9):1530-8.

[4] Schwartz WB, Newhouse JP, Williams AP. Is the teaching hospital an endangered species? New England Journal of Medicine. 1985;313(3):157-62.

[5] Tasman A, Riba M. Strategic issues for the successful merger of residency training programs. Psychiatric Services. 1993;44(10):981-5.

[6] Lovejoy FH, Nathan DG, Zuckerman BS, Pizzo PA, Fleisher GR, Vinci RJ. The merger of two pediatric residency programs: lessons learned. The Journal of pediatrics. 2008;153(6):731-2. e1.

[7] Smith M, Graham P, Holtrop JS, Thomason C, Joyce B. Muddling through a merger: a qualitative study of two combined family practice residencies. FAMILY MEDICINE-KANSAS CITY-. 2003;35(7):482-8.

[8] O'Neill JA, Jr, Stain SC. An Effective Merger of Academic Surgical Programs. Archives of Surgery. 2001;136(2):172-5.

[9] Rider EA, Longmaid III HE. A model for merging residency programmes during health care consolidations: a course for success. Medical Education. 2003;37(9):794-801.

[10] Berns JS, Coull S, Paskin D, Spevetz A, Boyer WC. Reflections on a crisis in graduate medical education: The closure of Hahnemann University Hospital. Academic Medicine. 2020;95(4):499-502.

[11] Cora-Bramble D, Joseph J, Jain S, Huang ZJ, Gaughan-Chaplain M, Batshaw M. A cross-cultural pediatric residency program merger. Academic Medicine. 2006;81(12):1108-14.

[12] Bing-You RG, Sproul MS. Medical students' perceptions of themselves and residents as teachers. Medical teacher. 1992;14(2-3):133-8.

[13] Tackett JJ, Longo WE, Lebastchi AH, Nadzam GS, Yoo PS. Combining disparate surgical residencies into one: lessons learned. J Surg Res. 2015;198(2):289-93.

[14] Kaafarani HM. The voice of the "never-complaining" staff: the impact of hospital and residency mergers on surgical trainees. Journal of Surgical Research. 2015;198(1):59-60.

[15] Mellinger J, Bonnell B, Passinault W, Wilcox R, Vanderkolk W, Baker R, et al. Resident and faculty perceptions of a surgical residency program merger. Current surgery. 2001;58(2):223-6.

[16] Friedman SG, Greben C, Scher LA, Safa T, Faust G, Halpern V, et al. Standardizing vascular surgery residency: merger of two programs to create one model. Vascular and endovascular surgery. 2004;38(1):63-7.

[17] Beaulieu ND, Dafny LS, Landon BE, Dalton JB, Kuye I, McWilliams JM. Changes in Quality of Care after Hospital Mergers and Acquisitions. New England Journal of Medicine. 2020;382(1):51-9.