

The Match: Providing Balance in an Unbalanced Transition to Residency

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A medical student's transition to residency is a time of excitement and opportunity. This traditional rite of passage is celebrated by friends and loved ones, mentors and peers, and it is a time when one's hard work and dedication to becoming a physician finally comes to fruition. But with transition comes new stressors for medical students to manage around the applications and interviews for residency, obtaining a residency training position, and the uncertainty of the myriad changes occurring both personally and professionally. Stressors commonly associated with the transition to residency are multifactorial and are often unique to medical education and the physician training environment. But if we are being honest, the stress is also perpetuated by decades of the traditions, practices, and processes that are part of the continuum of physician training.

In March 2019, the stakeholders of the Invitational Conference on USMLE Scoring (InCUS) convened to discuss the factors contributing to the reliance on the USMLE score for residency screening and selection, and reported that the transition to residency is flawed and insufficient at meeting the needs of the medical education community.¹

Since I assumed leadership of the National Resident Matching Program (NRMP) in the fall of 2019, the process of transitioning from medical school to residency has become even more pressurized. In 2020, the onset of the pandemic dramatically changed the educational environment and the clinical rotations experience and resulted in an abrupt national shift to virtual interviews for residency recruitment. This brought about a deep uncertainty about whether the medical education community could thrive in such conditions and concern about which changes would become the new reality.

Since then, virtual interviews have, for some, begun to move toward hybrid interviews as others return to in-person, and these inconsistencies in process have raised concern about inequities of opportunity for applicants. Compounding these seismic shifts are the anticipated but unknown impacts of disruptive legislation, the demand to establish a more diverse physician workforce despite limitations in the STEM pipeline, persistent bias and opacity in the residency selection processes, concerns of forecasted physician workforce shortages, criticism of resident salaries, and

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the impact of the training and work environment on resident wellness.

These issues have established great imbalance and brought stress levels in the medical education community to an untenable level. Unsurprisingly, they have also resulted in unbridled critique and calls for sweeping disruption of the processes, systems, and organizations overseeing medical education and the transition to residency. These criticisms have targeted the NRMP and the matching processes, but to determine whether sweeping disruption of The Match would substantially solve the imbalance, one must first understand what The Match is and how it supports the transition to residency.

THE MATCH

The NRMP, otherwise known as The Match, offers a centralized system (a clearinghouse of sorts) providing for the optimal and efficient placement of medical students and residents into residency training programs in the United States. The placement of residents is accomplished by aligning the preferences of medical students or residents with the preferences of residency program directors using a matching algorithm, the Gale-Shapley algorithm, ensuring a balanced distribution of trainees across a broad variety of programs and specialties.

You will note this description does not include the application services, interview systems and processes, or the accreditation of training programs. Those are all overseen by organizations adjacent to and independent from the NRMP. The NRMP is a 501(c)3 corporation founded in 1953, and it is the independence of The Match and the rigor of its policies, guidance, and resources that work to bring balance to the transition to residency.

Equal opportunity and commitment

Foundational to The Match are standardized processes that promote equal opportunity amongst all participants and ensure, through enforcement of the binding commitments, that all participants are committed to the decisions made. Without enforcement of binding commitments, applicants and programs risk being subjected to changes of heart, which can have devastating consequences on an applicant's career path and on a program's mission, aims, residents, and clinical responsibilities. To waive that commitment, one must demonstrate a hardship that justifies the adverse impact on the other party.

Transparency and disclosure

The Match instills balance by promoting transparency, ensuring all participants have access to timely and accurate information about each other during recruitment and ranking. Applicants are required to fully disclose medical and professional experiences to programs. Programs must disclose the terms of an applicant's training appointment, including salary and benefits, as well as eligibility requirements, before rank order lists are submitted. In fact, it is only the policies of The Match that enforce this disclosure so that applicants and programs can make fully informed decisions about each other before ranking preferences are due.

Fairness and equity

The Match fosters balance through fairness and impartiality, reducing disparities in access to residency training programs. The matching algorithm seeks to align the preferences of applicants and residency programs as closely as possible, maximizing each participant's satisfaction with outcomes and ensuring there is no match between participants who have not preferred each other. The matching algorithm does so without care or concern about a participant's gender or race or a program's clinical specialty or geographic location.

Confidentiality and enforcement

The NRMP's enforcement of confidentiality for all participants is crucial in fostering an accurate representation of true preferences for all participants. Policies that serve to reduce external influence or improper behaviors that compromise the fairness and integrity of the system are important for all participants, but in particular, to those most vulnerable in the transition to residency—applicants.

MATCH DATA

The NRMP further infuses balance into the transition to residency by disseminating comprehensive Match data to the medical education community, allowing researchers and others to better understand applicant and specialty profiles and the effectiveness of The Match for residency and fellowship programs. But more data are needed to understand the decisions made during the transition to residency affecting decision-making.

For its part, in 2022, the NRMP implemented the collection of applicant demographic data in the Main Residency Match and in the Specialties Matching Services (ie, fellowship matches). The NRMP

has now published two years of demographic data in its newest report, Charting Outcomes™: Demographic Characteristics of Applicants in the Main Residency Match® and SOAP®.² This is a generative, interactive report that highlights characteristics across the specialties represented in The Match, across all applicant types, by both preferred specialty and match outcomes.

CALLS FOR CHANGE AND THE MATCH

Over the last few years, calls for change have reached a fever pitch, and the NRMP has received a myriad of suggested improvements through literature and social media, by other organizations, and by specialty groups.

In 2020, a UME-GME Review Committee formed by the Coalition for Physician Accountability made 34 recommendations for improvement across the transition to residency in Recommendations for Comprehensive Improvement of the UME-GME Transition³ and several of those recommendations pointed to The Match. These included fostering research to understand which factors are most likely to translate into physicians who fulfill the physician workforce needs of the public; establishing specialty-specific salutary practices for recruitment to increase diversity across the educational continuum; and publishing characteristics of ranked and matched applicants. The NRMP's Charting Outcomes reports respond to the call. While the NRMP is not the first organization to collect demographic data, our unique ability to combine data with an analysis of an applicant's preferred specialty and match outcomes allows us to identify patterns in the transition about which other organizations can only speculate. The NRMP can report disparities in the opportunities for applicants underrepresented in medicine, reveal patterns specific to medical doctor, doctor of osteopathic medicine, and international medical graduate applicants, and explain differences among applicants who are in The Match as opposed to unmatched applicants in the Supplemental Offer and Acceptance Program during Match Week, or who obtain only a Postgraduate Year 1 position. Illuminating these patterns and informing the community, while at times uncomfortable, are critical to restoring more balance to the transition to residency.

Additional recommendations included innovating across the application and matching processes to concentrate applicants at programs where mutual interest is high. This recommendation

generated much discussion about the potential for an "early Match."^{4,5} The NRMP was clear in its concern about the intent and foreseeable consequences of early Match proposals as written.⁶ To address this recommendation and better understand possible outcomes, we asked independent researchers to simulate an early Match, which showed that, in fact, both applicants and programs would be harmed.⁷ Recognizing there are opportunities for improvement in the transition related to matching timelines, the NRMP engaged the community in a period of public comment and public testimony about a Two-Phase Match. While there was substantial medical student and resident support for the proposal, the larger medical education community voiced concerns about timelines, workload, and stigma.⁸ The proposal is not dead, though. The NRMP is continuing to assess ways in which we can reduce stress in the matching process while maintaining the integrity, protections, and balance the current system affords.

CONCLUSION

Stress and imbalance in the transition to residency deserve the time and attention of all medical education leaders. For its part, the NRMP is collaborating with the community to carefully address Match issues without inadvertently "breaking" processes that work, and we continuously engage in critical analysis of The Match processes to make improvements where possible. But we also absorb the brunt of criticism about processes not influenced by The Match, including high application numbers, challenging interview processes, and resident salaries. There are surprising misunderstandings about the processes that collectively facilitate the transition to residency and, seemingly, a hesitancy on the part of stakeholders to look deeply at the root causes of those issues.

No single process or entity has created the unbalanced environment in the transition to residency, and no single change is going to achieve the balance medical education needs. But the NRMP is engaged and excited about how we foster balance and contribute to this most important transition in a physician's career, and we are excited about our ever-increasing capacity to inform the community, illuminate issues, and help solve problems. With that, we ask the medical education community to look deeper [and inward] to understand the modern learning environment a century in the making.

Contributors

N/A

Ethics approval

N/A

Informed consent

N/A

Registry and the registration no. of the study/trial

N/A

Data accessibility

All data will not be made publicly available. Researchers who require access to the study data can contact the corresponding author for further information.

Funding

No funding was received for this work.

Disclosures

The authors have nothing to disclose.

Peer review

This manuscript has been peer reviewed.

Animal studies

N/A

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