Burning Matches: Arguments for Improving the Match Process for Physician Trainee Couples

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n March 18, 2022, the medical community gathered to celebrate another year's "Match Day." More than 36000 rising interns opened their envelopes to discover where they will complete the next phase of their training. While the National Resident Matching Program (NRMP) Match Day in March represents the largest "Match Day" of the year, there are dozens of match days recognized by unique residency and fellowship matches throughout the year. In the 2021-2022 academic year, we identified at least 50 residency and fellowship matches between the NRMP, San Francisco (SF), Joint GME Selection Board (JGMES), and American Urological Association (AUA) matches (FIGURE, online supplementary data).²⁻⁵ The existence of so many unique matches, each with their own systems, timelines, and nuances, creates a complicated, expensive, and anxiety-provoking matrix for physician trainee couples to navigate.

The 2021-2022 NRMP Match included 2444 trainees participating in the Couples Match. While the NRMP's Couples Match serves as a useful resource for pairs of physician trainees to match in the same region, this resource is only accessible to couples participating within the same match.⁶ Thus, the division of matching systems excludes couples participating in separate match systems from the potential benefits of the Couples Match. This means the matching dermatologist and ophthalmologist, the military surgeon and civilian radiologist, the pediatric subspecialist and urologist, among other discordantly matching couples, must decide how to navigate 2 separate matches, together. Approximately 20% of ophthalmology and urology applicants to a single center had a significant other participating in the match in 2021.7 Of those with a significant other, 21% considered not applying to ophthalmology or urology because of the inability to participate in the Couples Match. The utilization of preference signaling that is emerging as a means for programs to identify the applicants most interested in their program further complicates a couple's application

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process.^{8,9} Candidates navigating the Couples Match, particularly discordant matches, often apply to more programs than if they were participating in the match as an individual.

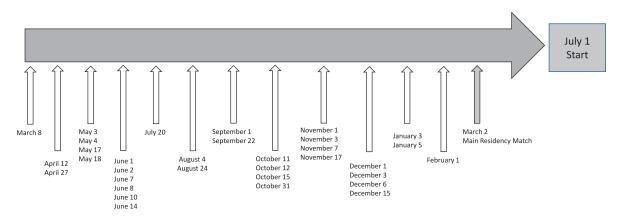
The web of non-communicating match systems that force physician trainees to risk physical separation from their partner, undesirable halting of training, and modification to family plans year-after-year are artificially made and unsupportive to physician trainee couples. ^{10,11} We argue that dismantling these human- and systems-made barriers between matching systems and merging matches into one communicating match system would have great benefits for physician trainee couples. Specifically, merging matches carries the potential to enhance trainee well-being.

Enhancing Trainee Well-Being

A couple engaged in a mutually supportive relationship benefits from spending time together. Close proximity to one's significant other maximizes the limited time physician trainee couples have to spend with one another. As training programs and health systems work to better understand and enhance resident and fellow well-being, multiple studies have noted a positive association between being in a relationship and well-being.¹² Similarly, increased perceived social support is associated with decreased symptoms of burnout, including emotional exhaustion and depersonalization. With a rising number of dual-physician couples, a unified communicating match system could have many beneficial effects.¹³

Considering Women in Medicine

Beginning in 2017-2018, more women than men entered US medical schools.¹⁴ The percentage of women matriculating into medical school continues to rise, and in the 2021-2022 application year, 55.5% of matriculating medical students were women.¹⁵ Biology enforces a challenging timeline for physician trainees who wish to carry pregnancies as a means of forming their families. A 2022 study found that physicians experiencing pregnancies were more likely



FIGURE

Timeline of Rank List Due Dates Leading Up to a Concordant July 1 Start Date Note: There are 34 distinct due dates across 50 separate matches.

to be older and nulliparous when compared to non-physician women living in the highest income quintile. Moreover, physicians carrying pregnancies were more likely to experience severe maternal morbidity, preterm births, and delivery of an infant who is small for gestational age. With approximately 25% of married women physicians married to another physician, one must question the role of discordant match timelines in physicians delaying pregnancies, resulting in older maternal age and associated pregnancy complications. 16,17

Beyond pregnancy considerations, a woman physician participating in a discordant match may choose to delay or forego additional training. These decisions have cascading consequences which may result in alternative careers or careers that do not advance her goals. In academic medicine, women are underrepresented in leadership positions despite a larger proportion of women entering the physician workforce. 18,19 Moreover, women receive a lower percentage of total National Institutes of Health awarded R01-equivalent grants and other research grant funding when compared to men.²⁰ We speculate that discordant matches may drive early career sacrifices some women make and contribute to the inequities we see regarding women's careers in medicine.

Finding Solutions

In our view, unifying match systems and timelines would better support physician trainee couples, benefit trainee well-being, and support women physicians' careers without deleterious effects on non-couple match applicants. Merging of the NRMP's Medicine and Pediatrics Specialties Fellowship Match this 2022-2023 application cycle serves as an example that successfully merging matches is

feasible when stakeholders work together.²¹ However, significant barriers, ranging from logistics to financial losses for institutions and match organizations, challenge the adoption of a unified couple-compatible match process. Given these barriers, we offer additional recommendations to more immediately mitigate risks of discordant matches.

First, we recommend better defining the scope of the problem and the effects of discordant match cycles on trainees. A carefully designed survey distributed by all match organizations (NRMP, SF, JGMES, and AUA) should determine how many applicants are part of a couple participating in a concordant versus discordant match cycle and examine the match's effects on well-being and career decisions. Second, we advocate for a culture of transparency between participants in discordant matches and the training programs to which they apply. While applicants may choose to share their couple status and geographic preference through personal statements or interviews, training programs currently do not use a universal, consistent approach for sharing data regarding the number of discordant match couples that successfully match in their program.²²⁻²⁴ Explicitly allowing, or even requiring, increased transparency from programs to applicants who are entering different match systems may help couples make more informed decisions. Third, training programs with frequent discordant match applicants may consider creating a "discordant couples match" position that they hold for individuals participating in discordant match cycles, such as during the same year or across years. To maintain fairness to all applicants, this strategy would require historical data and may best apply to large programs with frequent discordant couple applicants. Finally, the various match systems need to work together on this problem. Incremental change, as seen in the Medicine and Pediatrics Specialties Fellowship merged match, can be done now. Making match timelines the same could be a first step in reducing strain on those applying as couples. Match organizations and specialty leadership should work together to merge match dates and develop systems that accommodate physician trainee couples while maintaining fairness for all participants.

References

- National Resident Matching Program. Data publication, the most comprehensive data resources for the Main Residency Match. Accessed January 8, 2023. https://www.nrmp.org/about/news/2022/06/nrmpreleases-the-2022-main-residency-match-results-anddata-publication-the-most-comprehensive-dataresource-for-the-main-residency-match/
- National Resident Matching Program. Match calendars. Accessed March 27, 2022. https://www. nrmp.org/wp-content/uploads/2022/02/SMS-Master-Calendar.pdf
- Association of American Medical Colleges. The armed forces health professions scholarship program for physicians. Accessed March 27, 2022. https://www. aamc.org/media/54446/download
- 4. SF Match. Match cycle calendar. Accessed March 27, 2022. https://www.sfmatch.org/match-calendar
- American Urological Association. Urology and specialty matches. Accessed March 27, 2022. https://www. auanet.org/education/auauniversity/for-residents/ urology-and-specialty-matches
- National Resident Matching Program. Couples in the match. Accessed March 27, 2022. https://www.nrmp. org/residency-applicants/get-ready-for-the-match/ couples-in-the-match/
- 7. Massenzio SS, Uhler TA, Massenzio EM, et al. Navigating the ophthalmology & urology match with a significant other. *J Surg Educ*. 2022;80(1):135-142. doi:10.1016/j.jsurg.2022.07.026
- National Resident Matching Program. Match participation agreement for applicants: 2022 Main Residency Match and Supplemental Offer and Acceptance Program (SOAP). Accessed March 27, 2022. https://www.nrmp.org/wp-content/uploads/2021/ 12/2022-MPA-Main-Match-Applicant.pdf
- Society of Academic Urologists. SAU preference signal pilot program. Accessed June 22, 2022. https://sauweb. org/about/announcements/sau-preference-signal-pilotprogram.aspx
- Alvin MD, Alvin ML. The couples match: navigating the trail together. *Acad Med.* 2018;93(5):677. doi:10. 1097/ACM.0000000000002151

- 11. Khouri RK. The pseudo-couples match. *J Grad Med Educ*. 2017;9(5):668. doi:10.4300/JGME-D-17-00382.
- 12. Raj KS. Well-being in residency: a systematic review. *J Grad Med Educ*. 2016;8(5):674-684. doi:10.4300/ JGME-D-15-00764.1
- 13. Ferrante L, Mody L. Dual-physician households: strategies for the 21st century. *JAMA*. 2019;321(22):2161-2162. doi:10.1001/jama.2019. 4413
- Association of American Medical Colleges. Chart 3: matriculants to U.S. medical schools by sex, academic years 1980-1981 through 2021-2022. Accessed April 10, 2022. https://www.aamc.org/media/9591/ download?attachment
- 15. Association of American Medical Colleges. Table A-1: U.S. MD granting medical school applications and matriculants by school, state of residence, and sex, 2021-2022. Accessed April 10, 2022. https://www.aamc.org/media/5976/download?attachment.
- 16. Cusimano MC, Baxter NN, Sutradhar R, et al. Evaluation of adverse pregnancy outcomes in physicians compared with nonphysicians. *JAMA Netw Open.* 2022;5(2):e2213521. doi:10.1001/jamanetworkopen.2022.13521
- 17. American Medical Association. Why doctors marry doctors: exploring medical marriages. Accessed April 10, 2022. https://www.ama-assn.org/print/pdf/node/9951
- 18. Mose JN. Representation of women in top executive positions in general medical-surgical hospitals in the United States. *Womens Health Rep (New Rochelle)*. 2021;2(1):124-132. doi:10.1089/whr.2020.0111
- 19. Chesak SS, Salinas M, Abraham H, et al. Experiences of gender inequity among women physicians across career stages: findings from participant focus groups. *Womens Health Rep (New Rochelle)*. 2022;3(1):359-368. doi:10.1089/whr.2021.0051
- National Institutes of Health. Data by gender. Accessed May 29, 2022. https://report.nih.gov/nihdatabook/ category/16
- National Resident Matching Program. NRMP announces new medicine and pediatric specialties match. Accessed June 22, 2022. https://www.nrmp.org/ about/news/2022/01/nrmp-announces-new-medicineand-pediatric-specialties-match/
- National Resident Matching Program. Match participation agreement for programs. Accessed January 8, 2023. https://www.nrmp.org/wp-content/ uploads/2022/09/2023-MPA-Main-Match-Program-FINAL-3.pdf
- 23. American Urological Association. Urology and specialty matches. Accessed January 8, 2023. https:// www.auanet.org/meetings-and-education/for-residents/ urology-and-specialty-matches

24.	San Francisco Match. Match rules. Accessed January 8,
	2023. https://www.sfmatch.org/about/match-rules

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