

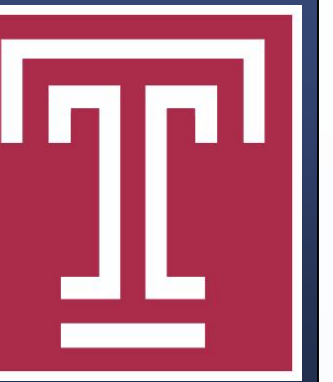
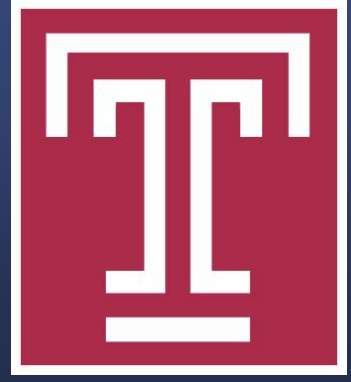
Attrition in Podiatric Residency Training

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Statement of Purpose and Literature Review

The decision to pursue a medical degree with the subsequent completion of a residency training program requires a dedicated work ethic and the clear potential for stress over a number of years. This has been objectified in recent years with the contemporary focus on physician wellness in the US. One component of this broad topic within the medical literature that has particularly interested us has been attrition during residency training.

Attrition, defined as the number of residents who leave the program they were matched into without completing the expected number of years, has been well-studied in many medical subspecialties. The rates appear highest in general surgery programs, with cumulative 5-year rates as high as 18% [1,2]. Risk factors for residency attrition have additionally been identified [3-6].

However, to our knowledge, there have been no investigations into attrition within podiatric medicine and surgery. **Therefore the objective of this investigation was to investigate the rate of attrition within podiatric residency training programs.**

References

- [1] Shweikeh F, Schwed AC, Hsu CH, Nfonsam VN. Status of resident attrition from surgical residency in the past, present, and future outlook. *J Surg Educ.* 2018 Mar-Apr; 75(2): 254-62.
- [2] Khoushhal Z, Hussain MA, Greco E, Mamdani M, Verma S, Rotstein O, Tricco AC, Al-Omran M. Prevalence and causes of attrition among surgical residents: A systematic review and meta-analysis.
- [3] Bauer JM, Holt GE. National orthopedic residency attrition: who is at risk? *J Surg Educ.* 2016 Sep-Oct; 73(5): 852-7.
- [4] Kennedy KA, Brennan MC, Rayburn WF, Brotherton SE. Attrition rates between residents in obstetrics and gynecology and other clinical specialties, 2000-2009. *J Grad Med Educ.* 2013 Jun; 5(2): 267-71.
- [5] Salles A, Lin D, Liebert C, Esquivel M, Lau JN, Greco RS, Mueller C. Grit as a predictor of risk of attrition in surgical residency. *Am J Surg.* 2017 Feb; 213(2): 288-291.
- [6] Chen H, Reddy RM, Palmer SW, Coleman DM, Hoch JR, DiMusto PD, Rectenwald JE. Attrition rates in integrated vascular and cardiothoracic surgery residency and fellowship programs. *J Vasc Surg.* 2019 Jan; 69(1): 236-241.

Methodology

Between the academic years of 2006-07 through 2015-16 the Temple University School of Podiatric Medicine (TUSPM) in Philadelphia, Pennsylvania matched a total of 780 graduates into 162 different US CPME-approved Podiatric Medicine and Surgery residency training programs. Program directors from these sites were individually contacted via email by one study author (AJM) in 7/2019 and asked if the specific TUSPM graduates who originally matched with their program 1) completed the program, 2) transferred to another program, 3) quit the program, or 4) were fired from the program. Program directors were informed that individual program results would be kept anonymous. Repeated attempts at contact with program directors was attempted until a response rate of >80% was achieved.

Basic descriptive statistics were performed on collected results in the form of a frequency count with a calculator. This investigational protocol was submitted through our Institutional Review Board (Temple University Hospital Protocol #26090) and determined to be exempt.

Results

Results were returned with respect to 629 (80.6%) of the 780 TUSPM graduates representing 106 (65.4%) of the 162 training programs. Program directors reported that 588 (93.4%) of the 629 graduates completed the program, 17 (2.7%) transferred from the program, 6 (1.0%) quit the program, 5 (0.8%) were fired by the program, and 12 (2.1%) matched but never started the program.

Twenty-one residency programs (matching with 32 TUSPM graduates) were no longer in existence and therefore contact information was unavailable for the program directors. One residency program (matching with 4 TUSPM graduates) responded to the request but declined to participate. And 57 programs (matching with 153 TUSPM graduates) did not respond to the repeated email requests.

Discussion

To our knowledge, this is the first reported rate of attrition in podiatric residency training. Within an effective response rate of 80.6%, **we found that 93.4% of graduates from a single college of podiatric medicine over a 10-year period completed training with the residency program that they primarily matched with. Annual rates of residents transferring (0.27%), residents quitting (0.10%) and residents being fired (0.08%) were relatively low when considering rates of attrition in residency training of other medical specialties [1-6].**

We embrace the fact that all investigations have limitations, and this study had several important ones to consider. First, this was a survey-type investigational design relying on responses from program directors. We had no way to verify that program directors were providing accurate information, but we are hopeful that the anonymity of the results mitigated this. Second, as results represented the graduates of only one college of podiatric medicine and not all program directors responded, it is possible that these results might not be indicative of a broader population sampling. However, a response rate of >80% is generally considered acceptable for a survey-type investigational design. **We also respectfully hope this relatively limited investigation might encourage the other colleges of podiatric medicine and national organizations such as the Council on Podiatric Medical Education to consider this outcome measure.** And third, this investigation was simply descriptive of rates of attrition and therefore we cannot report what resident-specific and/or program-specific variables are associated with attrition. We think that this represents an important potential avenue for future investigation.

In conclusion, the rate of attrition in podiatric residency training appears to be relatively low. It is our hope that this information leads to other investigations examining attrition, specifically as it relates to risk factors for attrition in podiatric residency training.

N=629 residency and 106 training programs	10-year cumulative rate
Completed the residency training program initially matched with	93.4%
Transferred from the program	2.7% (0.27% annual rate)
Quit the program	1.0% (0.1% annual rate)
Fired by the program	0.8% (0.08% annual rate)
Matched with, but never started the program	2.1%