

FROM CLASSROOM TO AMBULANCE:

Describing how prior academic education impacts EMT student success in a 4-week academy-style course.

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INTRODUCTION

Emergency Medical Technicians (EMT) deliver the majority of prehospital emergency care in the United States. To serve those facing life-threatening injuries, EMTs typically receive between 4 and 16 weeks of training through education programs at hospitals and community colleges, often with minimal prerequisites. There continues to be wide variability in student success, including course completion rates. There is, however, minimal understanding of student's prior education and how it influences their classroom achievement.

OBJECTIVE

Our objective was to compare EMT student's prior academic education and their subsequent course completion of an academy-style, 4-week initial education program.

METHODS

We conducted a retrospective review of the UCLA initial EMT education program demographic survey responses, specific to self-reported student responses, to their level of previous education (high school graduate, diploma or the equivalent; some college credit, no degree; trade/technical/vocational training; associate degree; bachelor's degree; master's degree, prefer not to say). All students who enrolled in courses from January 2022 to December 2022 were included in the initial analysis. For any educational category with fewer than 10 responses, the category was removed. Pearson's chi-squared test was completed by comparing the education level with whether the student completed the course. For any student who attempted the course multiple times, only the response from their first attempt was analyzed. The response "prefer not to say," was excluded from the analysis. This study was approved as exempt from IRB by the UCLA David Geffen School of Medicine.

Respective Level of Education, Compared

EDUCATION LEVEL	TOTAL STUDENTS	STUDENTS COMPLETED	COMPLETION RATE	CHI ² , 95% CI
High School or Equivalent	131	96	73%	0.909 P=0.34
Some College Credit	138	108	78%	0.537 P=0.463
Associates Degree	26	22	85%	0.472 P=0.492
Bachelor's Degree	149	133	89%	0.393 P=0.531
Master's Degree	12	10	83%	

High School versus Post Secondary Education

EDUCATION LEVEL	TOTAL STUDENTS	STUDENTS COMPLETED	COMPLETION RATE	CHI ² , 95% CI
High School or Equivalent	131	96	73%	6.6219 P=0.01
Completed Some Level of Post Secondary Education	321	269	84%	

The author team would like to thank the students who completed their EMT training and agreed to participate in the research.

RESULTS

There were 466 student responses to the demographic survey during the study period included in the analysis. When each education level was compared with the next respective higher education level, there was no statistical significance. Having some level of college education up to a master's degree, however, was statistically significant in completing the EMT course when compared to a high school graduate, diploma, or the equivalent ($\chi^2=6.62$, $p=0.01$).

CONCLUSION

Students with prior post-secondary education are more likely to complete the EMT course. As a traditionally entry-level position, academic prerequisites have historically not been required. In addition, study habits and techniques are often taught and developed in post-secondary education, which may aid EMT students in completing their course. While further study is needed, EMT programs should consider whether some college-level prerequisites would improve classroom success.

LIMITATIONS

The research is limited to one program and thus may have geographic disparity and inclusion bias. Additionally, our pre-filled selections do not allow for other nuanced answers that may affect course completion. This may include prior academic success, prior academic program rigor, and length of time passed between prior education completion and the analyzed data.