Comparing PostBaccalaureate Master's Degree Programs Designed for Premedical and Other Health Professions' Students

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Introduction

Postbaccalaureate programs (PBPs) for pre-professional health students are important, yet remain a hidden step on the path to health professional school matriculation:

- -Approximately 15% of medical students participate in a PBP
- -PBP students are more likely to be underrepresented in medicine (URM)
- -PBP students are likely to work in underserved communities and in primary care
- -PBP experience is not identified by either the AMCAS or the preMCAT

PBPs differ from other educational programs:

- -No standardization of programs or accreditation entity
- -No standard requirements regarding duration or content
- -No single comprehensive database available to students and advisors (as compared to the MSAR for medical schools)

Duke University School of Medicine created a degree granting PBP. In 2015, the Master of Biomedical Sciences (MBS) enrolled the inaugural class. Our goals of this study are to: 1) compare our PBP with other similar programs 2) learn from the experience of other PBPs, and 3) network with other programs to share promising practices.

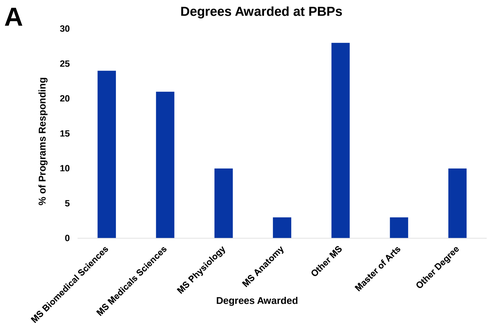
Methods

We accessed the AAMC's PBP database in December 2016 to identify 69 programs that 1) issue a master's degree and 2) are associated with a medical school. We created a Qualtrics survey to assess program structure, curriculum design and student outcomes. We emailed the survey to program directors and program administrators. Participation was voluntary, and we collected only aggregate data. The responses to the survey were tabulated and relationships between several categories were compared using JMP® software, generating contingency tables and graphics. The Duke University School of Medicine Institutional Review Board approved the project as exempted educational research.

Conclusions

This subset of masters' granting PBPs does not share unifying features nor systematically measure the same outcomes. The AAMC online PBP database did not perfectly match the PBPs listed in the MSAR. Given the likelihood that both the number of PBPs and students enrolling in them will continue to rise, we believe the AAMC should annually update the online PBP database. We plan to conduct future studies building off these data, focusing on student outcomes.

A



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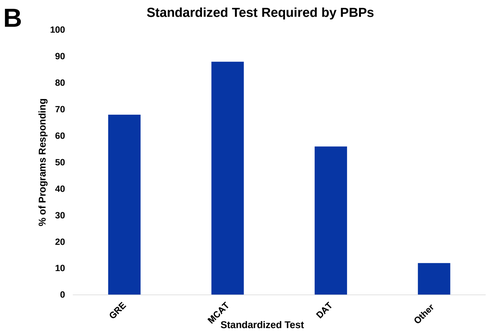
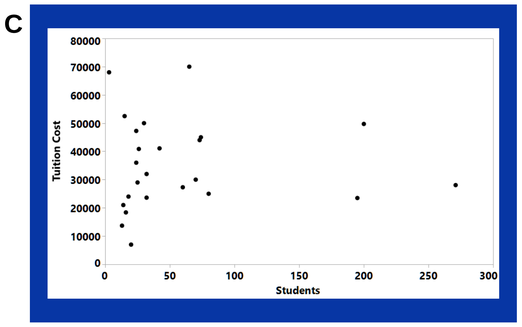


Results-Program Structure

Table 1. Additional Program Descriptors	
Program Duration	
10-12 months	65%
13-24 months	17%
Other	17%
Students Matriculated	
Mean	57
Range	3-271
Tuition Cost	
Mean	35,292
Range	7,000-70,000

C

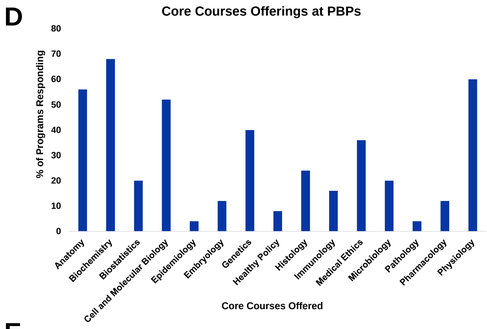


A. Most PBPs offer some type of M.S. degree.
B. Most PBPs require standardized test scores submitted with the application. Programs may accept more than one test.
C. We found no correlation between student matriculation and program cost.

Table 1. Most PBPs last 10-12 months. This subset of PBPs show a wide range in the number of students that matriculate and the cost to attend.

Results-Curriculum

D



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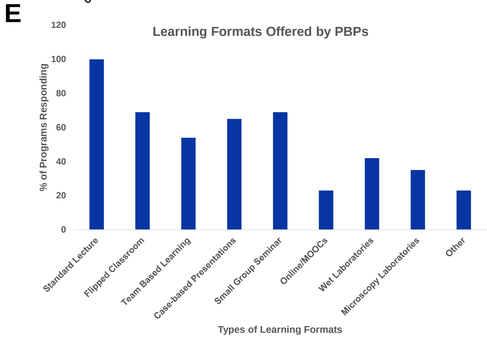
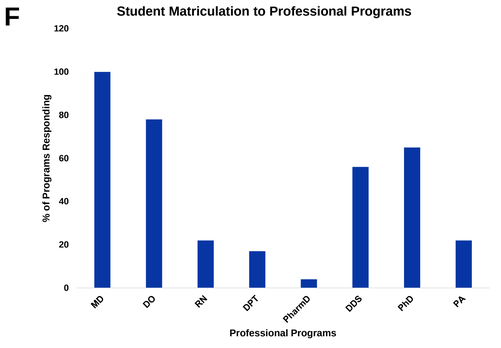


Results-Student Outcomes

Table 2. Additional Student Outcomes	
MCAT Score Improvement	
Yes	46%
Unknown	54%
Gap Year Employment Assistance	
Yes	42%
No	58%
Guaranteed Interview to Medical School	
Yes	19%
No	81%

F



D. Biochemistry and Physiology are the most common courses among PBPs but not required at all programs. The variety of core courses indicates the uniqueness of each program.
E. All PBPs use standard lecture, but formats vary among other options.
F. Students matriculate successfully to many types of health professional schools after completion of these PBPs.

Table 2. Most PBPs do not track student improvement on MCAT, assist with employment in a gap year, or guarantee interviews with medical schools.

Duke University School of Medicine