Data-Driven Targeting for Likely to Excel RTs

Submitted by: Justin Misuraca, RRT, RRT-NPS, ACCS, C-NPT

INTRODUCTION

PIMA Medical Institute (PIMA) had a hypothesis: first-time Wonderlic scores of >20 signal a higher pass rate for respiratory therapists (RTs) taking the Therapist Multiple-Choice (TMC) Examination. A multi-facility, multi-year research initiative is now underway, with local results beginning to illuminate where the greatest correlations exist and where PIMA program directors can initially gain ground in recruiting applicants most likely to succeed in the RT educational program.

HOW IT WORKS

Prior to undertaking more formal data analysis, program director Justin Misuraca, RRT, RRT-NPS, ACCS, C-NPT tracked information from applications related to how the candidate heard about respiratory therapy and specifically the PIMA program. He also attempted to look at individual indicators of success, informally compare them with those of his colleagues, and adjust his recruitment initiatives along the way.

Understanding that data could illuminate opportunities to make better, more informed decisions of who and where to recruit for the respiratory therapy education program, Justin developed a study to assess the indicators most likely to correlate to candidates with the best chance to excel in the respiratory therapy education program. The study extended beyond his own institution to include the eight PIMA campuses with respiratory therapy education programs.

Data from his five-year, retrospective study currently includes entrance exam scores, Wonderlic scores, math scores, GPAs, practice exam scores, and more as outlined below.

Data Element	Description
Entrance exam	A combination questions: math plus the Wonderlic Contemporary Cognitive Ability Tests
Employment	Current or previous employment within the healthcare field
Re-enrollment	Number of times candidate has enrolled in the program
Math grades	Test scores during the program
Biology grades	Test scores during the program
Grit scale score	8-question score from Angela Duckworth's Grit scale (in pilot on the Denver campus)
Advanced placement coursework	Yes/no

HOW IT WORKS (cont.)

Although the study is not complete, correlations between scores and graduates are emerging. According to Justin, a Wonderlic test score of 20 is a requirement for entrance into the PIMA respiratory therapy program. "Early data analysis shows candidates who pass the Wonderlic test with 27 points on the first attempt are more likely to have higher pass rates on the Boards, he said." Applicants can take the Wonderlic up to three times in one year; however, Justin indicated "multiple attempts tend to correlate with higher drop rates and greater fail rates on the TMC."

Meanwhile, Justin explained that the education department continues to work on a separate, yet similar initiative, to change entrance requirements.

OPPORTUNITY

As not all respiratory therapy programs require an entrance exam, at a minimum, assessing the candidate's math proficiency and cognitive ability may predict the long-term viability of the candidate completing the program. Evaluate entrance exams and watch for results from the five-year retrospective study published by PIMA.