The purpose of this literature review is to determine predictor variables that attribute to first time success on the National Physical Therapy Examination (NPTE).

**Background**

Physical Therapy programs receive their accreditation from the Commission on Accreditation in Physical Therapy Education (CAPTE). One of the many standards that CAPTE takes into consideration when accrediting a physical therapy program is the first time pass rates put programs at risk of not being accredited; therefore, knowing the variables that can predict success on the NPTE are vital for colleges and universities to prepare students for success. Predictor variables may also be useful to physical therapy programs for determining acceptance of students into the professional phase of the program. Additionally, students benefit from knowledge of these predictor variables and can use this knowledge as a guideline to compare their personal academic standards to.

**Purpose**

- **Doctor, M.**
  - **Purpose:** The purpose of this study was to determine the factors that predicts first time success on the NPTE.
  - **STUDY:** 107 physical therapy students at the University of Mary
  - **SUBJECTS:** - Requirements for acceptance were a 2.75 overall GPA and a 3.0 score in the clinical work, a bachelor's degree, and a 40 PT observation hours
  - **METHODS:** - Sample of convenience
    - Information related to age, degree, core GPA, clinical hours, interview, and writing sample scores were considered for each student
    - Writing samples were scored according to a nonevaluative advisor with specific corresponding questions
  - **RESULTS:** - Significant correlations between NPTE first time pass rates, core GPA (p<0.05), and first year GPA (p<0.01)
  - The best predictors found between NPTE first pass rates were the students GPA in their first year of physical therapy education and their core course GPAs. (Figure 1)

- **Meiners, K.**
  - **Purpose:** The purpose of this study was to explore whether certain variables were predictive of test takers first time score on the NPTE.
  - **STUDY:** 134 Graduate students in the professional phase of a physical therapy program in a private midwest university
  - **SUBJECTS:** - Researchers performed a quantitative study using hierarchical linear regression of different variables and first time NPTE scores.
  - **METHODS:** - A correlation analysis of all 2006 PT Clinical Performance Exam (CAPTE) categories and first time NPTE success was performed
  - **RESULTS:** - The only significant predictor of first time NPTE success was found to be first year professional phase GPA (p<0.01)
  - No category of PT CPI 2006 individual scores or overall score were significantly correlated with first time success on the NPTE.

- **Utzman, R.**
  - **Purpose:** The purpose of this study was to determine whether admissions data could be used to estimate physical therapist students’ risk for academic difficulty.
  - **STUDY:** A national sample of data from 3,582 students in 20 different physical therapist education programs
  - **SUBJECTS:** - Each program provided data about their students’ undergraduate GPA, quantitative and verbal Graduate Record Examination (GRE) scores, and their academic difficulties.
  - **METHODS:** - Students had points added or deducted to their prediction rule scores based on race, an undergraduate GPA of 3.15 or lower, and their age
  - **RESULTS:** - 40% of students with high prediction rule scores (2 or higher) encountered academic difficulty
  - Students with an undergraduate GPA of 3.15 or lower had an increased incidence of academic difficulty
  - An undergraduate GPA of 3.51 or higher indicated less academic difficulty for students

- **Vendrily, A.**
  - **Purpose:** The purpose of this study was to investigate relationships among clinical education performance, academic performance, critical thinking (CT) skills, and first time success on the NPTE.
  - **STUDY:** 42 graduates of one professional physical therapy program
  - **SUBJECTS:** - Average age 29.77 years with a range of 24-40 years
  - **METHODS:** - Scores for the California Critical Thinking Skills Test (CCTST), ratings on the CPI, and GPA. The remaining data was self-reported after graduation with each participant providing individual NPTE scores to the researcher
  - **RESULTS:** - The correlation between pre-professional and first year professional phase GPA accounted for 42% of the variability in NPTE scores and clinical performance, academic performance, and clinical performance did not appear to strongly influence success on the NPTE

- **Doctor1** found a significant correlation between core course GPA before admissions to the PT program and overall GPA in the first year of the professional phase of the PT program with first time success on the NPTE. However, there was some skepticism about drawing a true prediction of those criterion alone due to the contradicting research. Meiners and Rush1 determined that the only significant predictor of the NPTE scores was first year professional phase GPA. They determined that no correlation was found between individual total PT 2006 CPI scores and NPTE success or raw scores. Utzman all7 determined that undergraduate GPA was the main predictor of academic success in a PT program, whether it was a masters physical therapy (MPT) or DPT degree program. Large variations for prediction rules in each individual program to help predict the academic success of students were determined; therefore, it was hard to draw a conclusion about what factors contributed to first time success on the NPTE. Vendrily7 discovered that the main predictors of the success on the NPTE were core course GPA and the GPA in the first year of the professional physical therapy program. Skills needed to fulfill the requirements of a PT (CT, academic performance and clinical performance) do not significantly correlate with first time NPTE success.

**Conclusion**

Professional phase GPA plays a significant role in determining a graduate physical therapy student’s first time success on the NPTE. More specifically, first year professional phase GPA has been found to be a strong predictor of first time success on the NPTE. Further research should be conducted to determine if additional factors lead to first time NPTE success to assist institutions in meeting accreditation licensure pass rate standards, and also to help PT students identify the predictor variables that will lead to their first time success on the NPTE.

**Future Research**

Future research is required to determine the most predictive criteria for first time success on the NPTE. Factors that researchers should investigate to determine the first time success on the NPTE include individual professional phase semester GPAs and the amount of retests that occur in pre professional core science classes if applicable to the programs standards.

**References**