

# **Clinical Variability of Six-Minute Walk Test Protocols by Licensed Physical Therapists: A Survey**

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# INTRODUCTION

- ❑ The Six Minute Walk test (6MWT) is a reliable and valid outcome measure commonly used to evaluate endurance in select populations, particularly adults with neurologic conditions.<sup>1,2,3,4</sup>
- ❑ Based on the American Thoracic Society protocol, the 6MWT involves a walking course of 30m on a long, flat, straight, hard surface with markings every 3m and with turnaround points marked with a cone.<sup>5</sup>
- ❑ Little evidence exists supporting adherence in clinical practice to the standardized 100ft 6MWT protocol from 2002 set forth by the American Thoracic Society.<sup>5</sup>
- ❑ Recently, the Academy of Neurologic Physical Therapy clinical practice guidelines has published a rectangular 40ft x 4ft configuration for the 6MWT.<sup>4</sup>
- ❑ The purpose is to survey licensed physical therapists (PTs) to determine how they administer the 6MWT in clinical settings and reasons behind reported configuration(s).

# METHODS

- ❑ Licensed physical therapists completed an anonymous online survey (n=157)
- ❑ Online survey consisted of questions relating to:
  - ❑ Administration of the 6MWT
  - ❑ Reasoning for the reported configuration(s)
  - ❑ Demographics
- ❑ Surveys were distributed through:
  - ❑ Academy of Neurologic Physical Therapy (ANPT)
  - ❑ American Physical Therapy Association (APTA)
- ❑ Data was analyzed by:
  - ❑ Response frequencies
  - ❑ Qualitative responses
  - ❑ Chi-Square with Fisher's Exact Test

# RESULTS- 6MWT Configurations

- ❑ PTs administered the 6MWT with varying configurations (Figure 1.)
- ❑ Space limitation was the most frequently selected reasoning (43.35%) for reported configurations.
- ❑ Having 100ft of walking space available was significantly correlated to using the 100ft 6MWT configuration ( $p < 0.001$ )

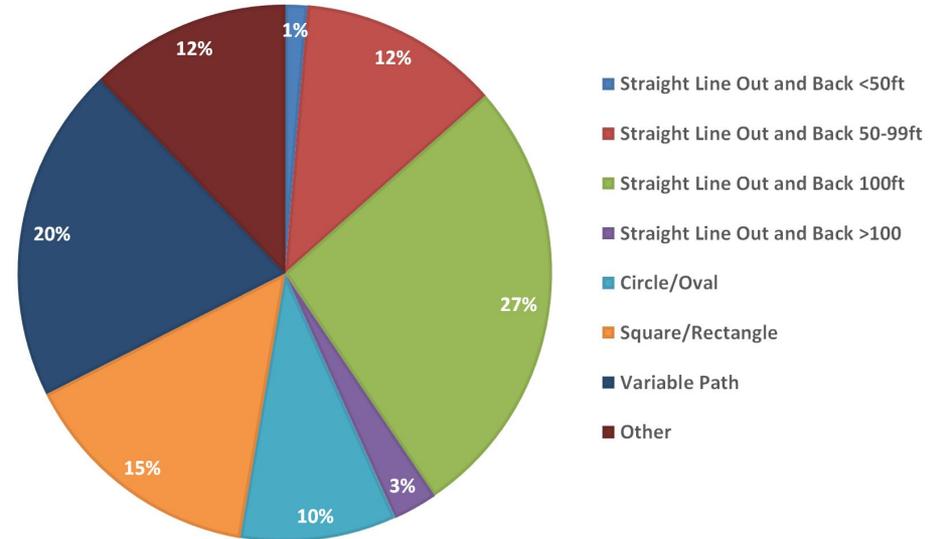
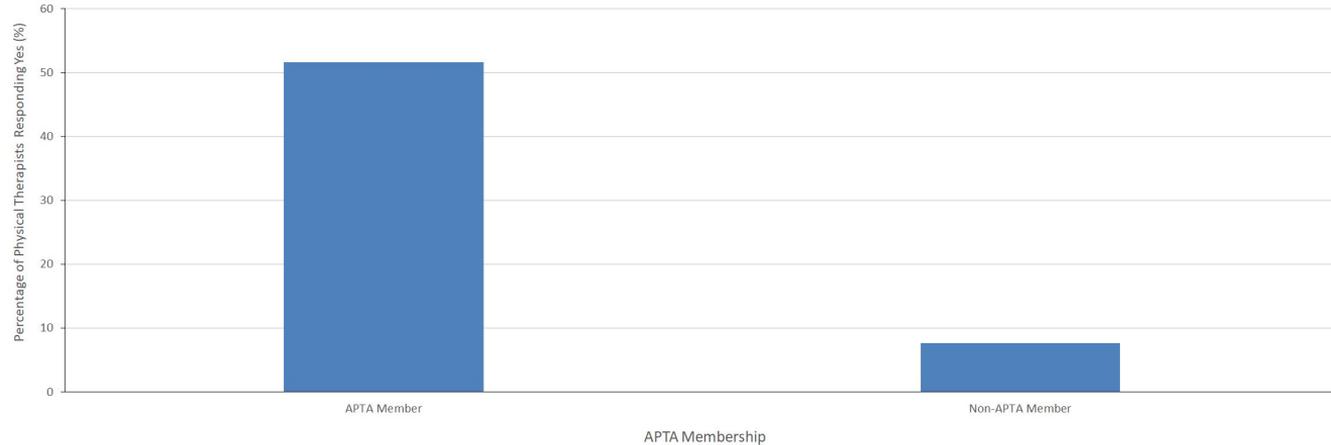


Figure 1. 6MWT configurations administered by licensed physical therapists.

# RESULTS- APTA Membership



□ APTA members were significantly more likely to know about the 100ft ATS 6MWT protocol than non-APTA members ( $p=0.003$ ).

Figure 2. Relationship between APTA membership and percentage of physical therapists responding yes to knowing about the American Thoracic Society 6MWT protocol.

# RESULTS– Neurologic Patient Population

- As PTs treated a higher percentage of neurologic patients ( $\geq 61\%$ ), they were more likely to know about the 2018 ANPT Clinical Practice Guidelines rectangular configuration protocol than PTs treating a lower percentage of neurologic patients ( $<61\%$ )

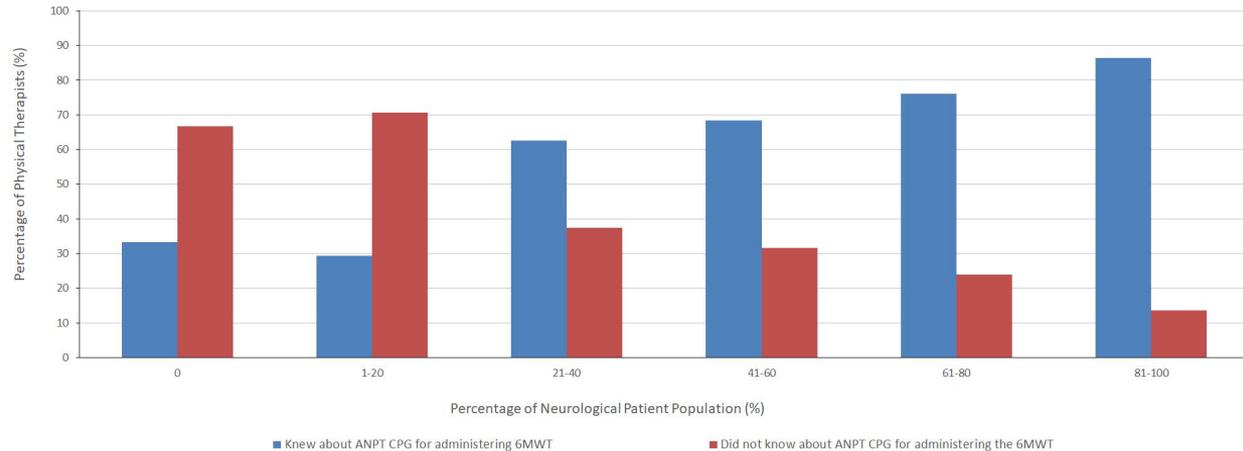


Figure 3. Relationship between percentage of neurological patients seen by licensed physical therapists and percentage of physical therapists' response regarding knowledge of the Academy of Neurologic Physical Therapy Clinical Practice Guidelines for admin

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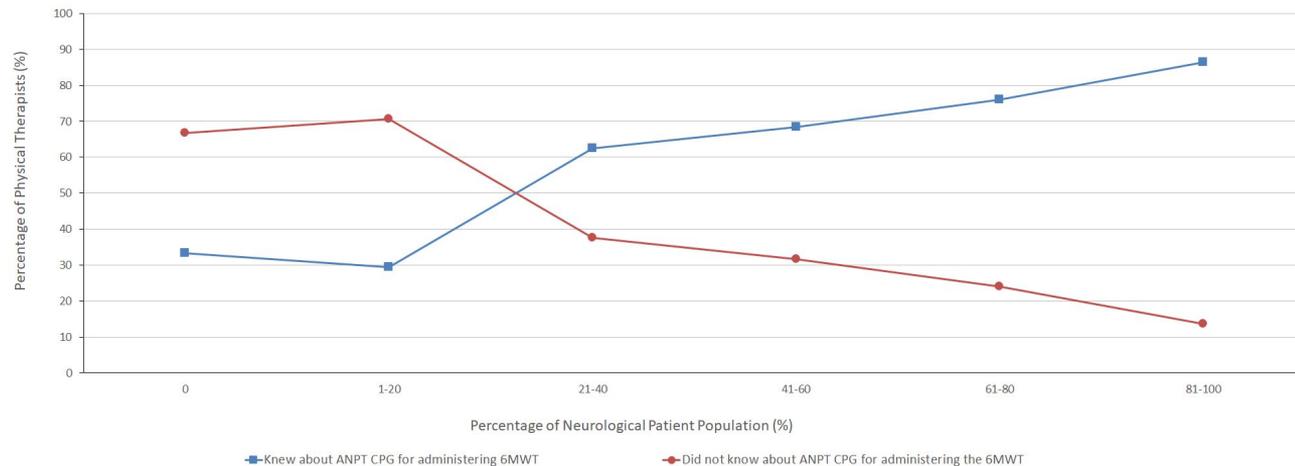


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# CONCLUSION

- ❑ Reported configurations of the 6MWT:
  - ❑ Was primarily due to space limitation
  - ❑ If clinicians had accessibility to 100ft of open walking space, they were more likely to use it
    - ❑ Consistent with American Thoracic Society 6MWT protocol
  - ❑ Configurations were not dependent on APTA membership, percentage of neurologic patients seen, or years of practice
  
- ❑ Knowledge of the American Thoracic Society 6MWT protocol was most dependent on APTA membership
  
- ❑ Knowledge ANPT Clinical Practice Guidelines protocol was most dependent on percentage of neurologic patients
  
- ❑ Knowledge of the ATS or ANPT Clinical Practice Guidelines protocol was not dependent on years of practice

# CLINICAL IMPLICATION

- ❑ Administering the 6MWT based on the ATS Guidelines is not always feasible due to constraints of the working environment which often leads to using a shorter test path distance, aligning with the more recent ANPT Clinical Practice Guidelines 40ft x 4ft 6MWT protocol.<sup>4</sup>
- ❑ This becomes relevant when comparing scores to normative values established using the ATS Guidelines and comparing values against other clinics when test administration is unclear.<sup>6</sup>
- ❑ Results from this study show a need for updated norms that are more congruent with clinic space in current clinical practice.

# ACKNOWLEDGEMENTS

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- ❑ Dr. Tara McIsaac, PT, PhD
- ❑ Dr. Curt Bay, PhD
- ❑ Volunteer licensed physical therapist survey participants

QUESTIONS?

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