

MEETING ABSTRACT

Open Access

# Health outcomes, education, healthcare delivery and quality – 3060. Assessment of parameters of six-minute walk test (6MWT) in healthy young subjects

Prasad Eswara Chelluri<sup>1\*</sup>, Sridhar Pulluri<sup>2</sup>, Ragender Mukka<sup>3</sup>, Sathyaprasad Andru<sup>2</sup>

From 2nd WAO International Scientific Conference (WISC 2012)  
Hyderabad, India. 6-9 December 2012

## Aim

Perform 6MWT in healthy young adults and its determining factors.

## Background

Functional exercise capacity can be assessed by several modalities. 6MWT provides a better tolerated, easy to administer, daily life activity test. American Thoracic Society (ATS) provides guidelines for 6MWT (2002). This is a simple test which can be performed at primary care level and recommended by guidelines committee for COPD in India (2003). There are hardly any publications on 6MWT in normal healthy individuals of India. The present study is a sample survey of 6MWT in healthy young college students.

## Methods

A cross-sectional study was conducted in 300 healthy subjects (male-200, female-100). Age, height in cms, weight in kg baseline and post performance pulse rate were recorded. 6MWT was conducted in a 100 ft long hallway in the medical college using lap counter to count the number of laps completed and alarm that sounded at six minutes after the walk started. Distance covered at the end of the six minutes was noted as well as pulse rate. ATS guidelines were followed. Statistical analysis was performed by SPSS16 to calculate person correlation coefficient and student t-test.

## Results

Subjects: male-200, female-100. Table 1

1.Strong correlation between height, weight, BMI and 6MWT observed in both males and females. Table 2.

Mean 6MWT distance by males was higher than that of females for the same height. Table 3.

**Table 1**

Age	male- 21.26+/-2.13 years	female-21.27+/- 2.22 years.
Height	male-165.55+/- 7.25 cm	female-157.97+/- 7.95 cm.
Weight	male-63.53+/- 6.67 kg	female- 54.85+/- 5.41 kg.
Body mass index (BMI)	male-23.15+/-1.02	female-21.94+/-0.79
Mean 6MWT distance	male- 570.21+/-35.77 meters	female-494.27+/-34.24 meters.

**Table 2**

	Males	Females
Height: P( Predicted)	< 0.0001	< 0.0001
r(coefficient)	0.772	0.862

**Table 3**

Weight:P	< 0.0001	< 0.0001
r	0.165	0.125
BMI: P	< 0.0001	< 0.0001
r	0.165	0.125

<sup>1</sup>Department of Pulmonology, Shadan Institute of Medical Sciences, Hyderabad, India

Full list of author information is available at the end of the article

## Conclusions

Mean 6MWT distance was : male- 570.21+/-35.77 meters, female-494.27+/-34.24 meters

Correlation was strong for height,weight,and BMI with the 6MWT distance. Men had higher mean 6MWT distance than women for the same age,weight and BMI.

## Author details

<sup>1</sup>Department of Pulmonolgy, Shadan Institute of Medical Sciences, Hyderabad, India. <sup>2</sup>Pulmonology, Mamata Medical College, Khammam, India. <sup>3</sup>Pulmonology, Chelmeda Ananda Rao Institute of Medical Sciences, Karimnagar, India.

Published: 23 April 2013

## References

1. ATS statement guidelines for the six minute walk test. *AMJ Respir Criti Care Med* 2002, 111-117.
2. Guidelines for the management of COPD in India: A guide for the physicians 2003. *Ind.J.Chest Dis.Allied sciences* 2004, 46:137-153.

doi:10.1186/1939-4551-6-S1-P227

**Cite this article as:** Chelluri et al.: Health outcomes, education, healthcare delivery and quality – 3060. Assessment of parameters of six-minute walk test (6MWT) in healthy young subjects. *World Allergy Organization Journal* 2013 6(Suppl 1):P227.

Submit your next manuscript to BioMed Central and take full advantage of:

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at  
www.biomedcentral.com/submit

