

# The role of gender on the physical work capacity profile of workers in an electricity supply company

JPH Lubbe,  
DDJ Malan,<sup>1</sup> and  
CJ Wilders<sup>1</sup>

<sup>1</sup>School for  
Biokinetics,  
Recreation and  
Sport Science (North  
West University),  
Potchefstroom,  
South Africa

Corresponding  
author:  
JPH Lubbe,  
E-mail: japple.lubbe@  
wellnessafrica.com

## ABSTRACT

Female workers are increasingly entering traditionally 'male occupations', yet they are more likely to experience a musculoskeletal problem in physically demanding jobs than male workers. The aim of this cross-sectional study in an electricity supply company was to determine the role of gender on the physical work capacity profile of workers, based on the minimum physical ability task requirements of their job. All 3752 males and 71 females in the study population participated. The mean overall physical work capacity scores for males exceeded that of females by 22.3%. There were practically significant differences between male and female workers for eight of the ten inherently required essential physical abilities. Male workers were more likely to meet the physical work capacity profile than female workers (OR 7.04). The fact that many of the female electricity utility workers did not meet the minimum physical ability task requirements of their job could explain their high injury rate and poor performance reported in other studies.

**Key words:** physical work capacity; gender, female workers, electricity supply company

## 1. INTRODUCTION

The lack of sufficient physical work capacity of females entering physically demanding jobs in increasing numbers is of global concern.<sup>1-5</sup> The World

Health Organization estimates that approximately 42% of the global working population are females and they are expanding into male-dominated trade and craft occupations.<sup>1</sup> In South Africa, labour legislation has accelerated this increase by forcing organisations to employ more females even in physically demanding jobs, without considering the impact on the overall productivity.<sup>6</sup> Both the Employment Equity Act<sup>7</sup> and the Promotion of Equality and Prevention of Unfair Discrimination Act<sup>8</sup> aim to prevent unfair discrimination and promote a more representative workforce. Most of these physically demanding jobs are usually designed with the male physique in mind, thus making them more suited to male workers.<sup>1,9,10</sup> Some industries where the manual labour has traditionally been performed by male workers are mining, construction, fire fighting and timber. In South Africa, most of these industries are experiencing a large influx of female workers.<sup>6</sup> As a result, there are now more females in jobs that historically experienced higher injury rates due to the physically demanding nature and manual labour involved in these jobs.<sup>10</sup> This also places additional physical demands on female workers and can thus contribute to increased injury rates and other musculoskeletal ailments.<sup>10</sup> In general, the literature on musculoskeletal involvement in the workplace reveals that female workers

