THE IMPACT OF A VOLUNTARY WELLNESS PROGRAM ON EMERGENCY SERVICE PERSONNEL IN THE TROPICS

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Introduction: Wellness programs are used successfully in both shift and non-shift work orientated environments to improve employee health and fitness. However, what is not clear is whether such programs are successful in an unpredictable shift work environment such as emergency service organizations. The aim of this investigation was to evaluate the health and fitness impact of a wellness program designed for a shift work orientated emergency service organization in the tropics (Queensland Fire and Rescue Service, Australia).

Program Design: A total of 70 emergency service personnel (54 operational staff and 16 office based staff with an age range 28-62 years) from three fire stations completed a voluntary wellness program over a six month period. The program consisted of three components: health and physical fitness assessment sessions conducted at the beginning and end of the program; on-shift daily exercise sessions; and education seminars. The health assessment consisted of health screening measures including body mass, body mass index, percentage body fat, girth measurements, waist to hip ratio (WHR), blood parameters (total cholesterol, triglycerides and blood glucose) and lung function. The physical fitness assessment consisted of trunk flexibility, muscular endurance, muscular strength and aerobic capacity. Throughout the program participants attended a one-hour supervised exercise session consisting of strength, aerobic and flexibility training. In addition, seminars were also provided to educate participants on topics such as healthy nutrition practices, exercise principles, sleep issues and stress management. Changes in health and fitness variables were determined using paired t-tests.

Results: Compared to preliminary tests, analysis of the data showed that operational staff had significant improvement (P < 0.05) across the majority of health and fitness variables (body mass, BMI, girth measurements, WHR, triglycerides, flexibility, muscular endurance, muscular strength and aerobic capacity). Office based staff also showed significant improvement (P < 0.05) for a number of the assessment variables including percentage body fat, girth measurements, WHR, muscular endurance and muscular strength. No significant change was shown for the remaining variables for either operational or office based staff.

Conclusion: This investigation demonstrated that a wellness program can be successfully integrated into a shift work orientated emergency organization and has a substantial impact on improving both operational and office personnel health and fitness.

Keywords: Exercise and Health, Health and Fitness