LETTERS TO THE EDITOR

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Sports medicine concept in occupational medicine

Dear Sir,

I read with great interest the editorial by Peter Verow [1] discussing the shared skills and overlaps between sports and occupational medicine. In the first instance, sports medicine and occupational medicine seem to deal with different issues; however, as Verow states, they are very close disciplines with significant overlaps. Occupational health aims to promote and maintain physical, mental and social well-being of workers in all occupations and is concerned with the relationship between health and work. Nowadays, professional sport is a full-time job and the aims of activity in sports medicine have parallels with occupational medicine.

Testing physical fitness before competitive sport can identify individuals who might be at a higher risk of certain injuries. Increased flexibility increases the risk of sprain, dislocation and disc prolapse [2]. Decreased flexibility increases the risk of muscle strain [2] and is also related to the outcome of occupational injury [3]. Strength is the ability of the muscle to produce maximal force [2]. The combination of abdominal strength/endurance and lower back/hamster flexibility has been related to the potential prevention of low-back pain [3]. Aerobic power (ml/kg/min) has been shown to be related to occupational injury outcome such that as aerobic power increases, occupational injury decreases [3].

Likewise, the assessment of physical fitness prior to physically demanding jobs may identify factors which increase the likelihood of injuries in the job [4].

To ensure that fitness assessment will not be used as a discriminatory tool, it can be implemented in the process of risk assessment after employment. According to the Health and Safety at Work Act 1974, the employer is required to protect the health, safety and welfare of its employees. If there is a physical fitness deficit which might increase the risk of injury [3,4], an appropriate training and rehabilitation programme could correct it and minimize the risk [4].

Athletes use training programmes to promote their sport performance. Exercise programmes for improving the cardiorespiratory and musculoskeletal systems can increase job performance in physically demanding jobs such as military service and the construction industry and decrease sickness absence [5]. There are two types of physical training programmes: general physical fitness and task-specific training. The latter requires a job analysis to identify the physically demanding tasks.

Following sports injuries, athletes should be able to resume physical activity as early as possible because the longer they are inactive, the more they lose exercise-induced physical fitness. De-training occurs within 1–2 weeks of stopping aerobic exercise [2]. If the person returns to activity without the required aerobic capacity, fatigue occurs quickly which significantly increases the risk of re-injury. As a result, early sport injury assessment followed by physical therapy and rehabilitation has great value.

Availability of efficient rehabilitation programmes preferably in conjunction with sports medicine professionals can reduce the duration of absences and likelihood of future injuries. Rehabilitation will be more efficient if the employee is provided access to fitness centres.

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References