

OCCUPATIONAL HEALTH PROMOTION AND INJURY PREVENTION STRATEGIES: THE REHABILITATION PERSPECTIVE

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ABSTRACT:

Introduction: Rehabilitation professionals have demonstrated their commitment to the occupational health speciality which has had a hugely positive impact on injured employees. By utilizing the expertise of specialist rehabilitation professionals, the promotion of occupational health and injury prevention strategies ensures the maintenance of good health in the workplace, legal compliance and supports both employers and employees when health problems occur.

Aim: The aim of this article was to report on the important role of rehabilitation in promoting occupational health and preventing injuries in the workplace.

Methods: A comprehensive but non-systematic search of the literature related to the topic was performed. The databases searched included: Google scholar, PubMed, PubMed Central, AMED (Ovid), BNI (Ovid), CINAHL (EBSCO), Embase (Ovid), HMIC: DH-Data and Kings Fund (Ovid), Medline (Ovid) and Psycinfo (Ovid). Information was only extracted from the database if they were peer-reviewed publications in scientific journals.

Conclusion: Expert rehabilitation is essential for occupational health and injury prevention strategies to be successful.

Keywords: rehabilitation; occupational health promotion; injury prevention strategies

INTRODUCTION

Occupational health (OH) promotion and injury prevention strategies (IPS) have received increased attention amongst rehabilitation professionals (e.g. physiotherapists, occupational therapists, speech and language therapists) showing both positive health and cost benefits (Hochanadel and Conrad, 1993). The primary aims of any rehabilitation professional are to promote health and to prevent injury and disease through health promotion programmes and IPS in order to achieve the highest functional level (Ouellette, Badii, Lockhart & Yassi, 2007). Specific criteria must be designed to identify the training needs and training programmes must address these needs. Only accurate and adequate knowledge of the risks associated with occupational work can empower the employee to identify hazardous working conditions. By proactively promoting health to all employees and implementing successful IPS rehabilitation professionals can make a difference. By ensuring that OH remains a core function in our

practice we can demonstrate our commitment to this speciality. This will have a hugely positive impact on all rehabilitation professions and the extended services we provide.

Rehabilitation professionals experienced with a multi-plan evaluation and treatment of occupational injuries are an essential component of returning employees to the workplace. The focus of rehabilitation is not only to improve motor and sensory function but also to include external factors such as work and home modifications (Steenstra et al., 2006). The emphasis of occupational rehabilitation requires a multidisciplinary team approach for the return-to-work process to be successful and in reducing the overall healthcare burden (Ross, Callas, Sargent, Amick & Rooney, 2006).

The rapid advances in rehabilitation have expanded the role of rehabilitation professionals. Multi-disciplinary teams must provide services that

promote optimal work performance for employees. The continued development of physical rehabilitation will play an important part in making the workplace more productive for all employees (Cheng, Amick, Watkins & Rhea, 2002). Senior management of any organisation has a legal obligation to ensure safe working practices (Keyserling & Smith, 2007). Safety policies and awareness of health and safety principles must be implemented on an ongoing basis. This can create an active and positive co-operation amongst employees to accept responsibility for safety within the organisation (DeLellis, 1997).

AIM

The aim of this article was to report on the important role of rehabilitation in the context of promoting OH and preventing injuries in the workplace. In addition, this article will contribute towards current and future research amongst rehabilitation professionals.

METHODOLOGY

A comprehensive but non-systematic search of the literature related to the topic was performed. Because this article was aimed at providing a perspective of rehabilitation in an OH promotion and IPS context as opposed to a critical review, papers were selected based on emerging themes rather than appraisal. However, information was only extracted from the database if they were peer-reviewed publications in scientific journals.

The databases searched included: Google scholar, PubMed, PubMed Central, AMED (Ovid), BNI (Ovid), CINAHL (EBSCO), Embase (Ovid), HMIC: DH-Data and Kings Fund (Ovid), Medline (Ovid) and Psycinfo (Ovid). The search terms used were grouped into three categories, namely: (1) Rehabilitation; (2) Occupational health promotion and (3) Injury prevention strategies. Synonyms were then applied to formulate additional search terms. Different combinations of the search terms were used to either narrow or broaden the search output. Boolean operators "and" and "or" were used.

This search yielded in excess of 2232 papers, of which only 44 papers were relevant to the topic. Papers appearing as abstracts were read and the full papers of those abstracts that appeared to be

pertinent to this study were acquired. All articles in English were retrieved.

DISCUSSION

OCCUPATIONAL HEALTH PROMOTION

In order to ensure a successful health promotion programme both employers and employees must show a genuine willingness to accept responsibility for health and safety in the workplace. Together employers and employees must negotiate skills training programmes that are effective, efficient and convenient to meet the specific health and safety training requirements of the organisation.

A successful health promotion programme is dependant on several factors involving the leadership role of the employer, the health and safety practices of the employees, the compliance of the organisation towards health and safety legislation and the safety of the workplace (Fuller & Hawkins, 1997; Karadzinska-Bislimovska, Baranski & Risteska-Kuc, 2004; Morreale, Ghiglioni, Bregoli & Corli, 2006; Muto, Tomita, Kikuchi & Watanabe, 1997). The absence of any one of these basic factors may contribute to an increase in occupational injuries, damage to property, loss of production time, loss of employee morale and even death (Proper, Van Der Beek, Hildebrandt, Saur & Seeger, 2004). The level of initial preparation will dictate the success of the presentation for the training programme (Gyekye, 2006). Success of any training programme is essential as training is expensive and trained consultants are accountable to ensure that the sessions are effective are not merely a waste of time and money (Grieco, 1993). There are several key points that are vital in the implementation of a successful health promotion programme. These points are discussed below.

Inclusiveness

In order to maintain safe working conditions, all categories of the workforce must be included in the training programme. This includes employees who work full or part-time and day or night shifts. The health and safety training of each employee must be evaluated in relation to their specific job description requirements and any other working arrangements such as shift work and flextime that may affect their health (Williams, Westmorland, Lin, Schmuck & Creen, 2007). Baseline criteria for the content of the training programme must then be

established using the relevant legislation.

Communication

The communicating of health information to employees may take several forms. These include informal group discussions, general safety promotion workshops, specific in-service training and the development of appropriate training materials for the various targeted groups (Davis et al., 2007). A simple description of safe working practices and health-related issues are not sufficient to ensure safety in the workplace. Procedures need to be demonstrated and practiced during training sessions. Employees must show competency before being allowed to assume duty. In this regard, the employer has an important role in communicating safe working practices through example setting and acknowledging or possibly rewarding the safety achievements of employees (Zohar & Luria, 2003).

Evaluation

On completion of the training programme a thorough evaluation examining the efficacy of the programme must be established. Supervisory reports in conjunction with a management follow-up plan are essential in ensuring the continual surveillance of employees. Effective communication channels linking the feedback from employees on issues of health and safety and employers must be implemented to contribute to the overall safety and productivity of the organisation. Disciplinary measures must be enforced on employees who break the safety rules. However, these measures must be applied carefully and only by those with the authority to do so (Schmidt, 1976).

Commitment

The employer must have a positive attitude and a genuine interest in health and safety. The supervisor has an added responsibility in ensuring that health promotion seminars are adequately attended. In order to promote safe working conditions senior management must establish safety policies and procedures that are relevant to the organisation. These policies and procedures must guide the employee to healthy working practices. The policies and procedures form a framework on which senior management contributes to the legal responsibility to ensure that

employees are provided with a safe and healthy workplace (Rogers, Winslow & Higgins, 1993).

Cost

The extensive costs associated with adequate training have been highlighted by several authors. Preparation time, which may take several hours to research and organize, write and accumulate support materials, proper training materials and a suitable location, audio-visual equipment and refreshments all contribute to the costs of training (Buntin et al., 2006; Nolin & Killackey, 2004; Sherman & Click, 2007). Richard, Kenneth, Ramaprabha, Kirupakaran & Chandy (2001) believes that accurate record keeping must be maintained to demonstrate the completion of the training and to provide the necessary liability protection for the organisation. Previously estimated budgets are thought to be conservative considering the numerous mandatory training requirements, initial employee orientations and regular preventative training sessions (Kogi, 2006). Jardine et al. (2003) believes that senior management must be prepared to dedicate a corporate priority to health promotion in order to reduce or eliminate occupational injuries and disease and achieve a moral responsibility at the same time.

INJURY PREVENTION STRATEGIES

IPS that facilitates the return-to-work of injured employees has grown since the 1960s. These programmes include early identification and treatment, regular surveillance of the worksite and accurate record keeping (Coutu, Baril, Durand, Cote & Rouleau, 2007). Reaching the goal of preventing occupational injuries requires a combined effort from all team members to best evaluate the worksite for potential hazards. To promote injury prevention strategies at the workplace several factors must be taken into consideration. These factors are discussed below.

Knowledge

Prior to performing any task the employee must understand the risks and hazards associated with the activity. Any task has risks and benefits but inadequate knowledge may lead to the employee failing to recognize the risks associated with the activity. The employee must have the required skill and knowledge to perform a task competently.

Insufficient skills contribute to injuries in the workplace (Shaw, Robertson, McLellan, Verma & Pransky, 2006). Increased attention must be given to special populations of the workforce. These include the physically challenged and older employees (Grandjean et al., 2006). According to Akerstedt, Peters, Anund & Kecklund (2005) impaired hearing, vision, mobility and reaction time are some of the factors that may affect work performance.

Work Limitations

The physical and psychological state of an employee can also affect work performance. Physical exhaustion and boredom can result in an employee acting recklessly (Marshall, Barnett & Sayer, 1997). According to Ames, Grube & Moore (1997) alcohol abuse and social problems may disrupt the normal behavioural patterns of employees which contribute to negative emotional states resulting in unsafe working habits.

Ergonomics

A successful injury prevention programme in the workplace can only be achieved by identifying the specific training needs of the employees. This includes a thorough examination of the working practices and workplace layout of each employee. Several studies (Furlow 2002; Stobbe 1996; Waters & MacDonald, 2001) have shown that by applying the basic ergonomic principles in a systematic and logical manner, occupational injuries can be prevented which would ultimately increase employee morale, productivity and quality of work.

Policy and Practice

Employees must be encouraged to evaluate their own workplaces and identify needs that could benefit both the employee and the organisation as planning effective training strategies are both time consuming and expensive. In order to meet the constantly changing needs of the employee, organisations with health and safety policies already in existence must ensure that these policies are updated according to international standards of safety.

Neglecting any aspect of health and safety could result in senior management making wrong decisions which in turn could compromise the safety of the employee with sometimes severe consequences. According to Ross (1994) a

thorough investigation of all safety challenges in the workplace must be comprehensively assessed to avoid concentration on only one aspect.

Dissemination

In order to implement and sustain a successful IP programme certain key elements are essential. These include active participation of all employees, long-term commitment by senior management and a positive attitude of all relevant stakeholders (Tornstrom, Amprazis, Christmansson & Eklund, 2007). A document containing the procedure of implementing the proposed programme in the organisation must be compiled. This document must first be approved by senior management and a policy formulated. Budget constraints, personnel resources, workplace limitations and individual inputs must be scrutinized during the process of formulating this policy (Lahiri, Gold, Levenstein, 2005). Senior management has a crucial role of ensuring that all level of employees are orientated on the new training policy by initiating an in-service programme. This programme should be part of the vision and mission of every organisation.

REHABILITATION PERSPECTIVE

Rehabilitation professionals have a critical role in the management of occupational injuries. This includes a range of services and expertise in assisting injured employees to safely return to the workplace. Critical to the success of any rehabilitation programme is the motivation and willingness of the employee to succeed and the support of the employer to accommodate an employee with an injury. Rehabilitation professionals must align their rehabilitation programme to help the employee participate in the goal determination process and become more proactive in returning to the workplace.

Aims

The main aim of rehabilitation is to focus on the specific rehabilitation needs of the individual employee and the associated social, economic, vocational and cultural implications that may affect the employee, as well as the impact on family, friends and the community. The rehabilitation process involves helping the employee to regain both physical and mental capabilities needed for work and leisure roles (Fritz, Delitto & Erhard, 2003; Ross, Callas, Sargent, Amick & Rooney, 2006;

Steenstra et al., 2006). Since occupational injuries have different clinical presentations a medically based functional assessment prior to rehabilitation intervention is important. The results of this assessment in conjunction with the prognosis and possible side effects of the injury form a baseline to treatment and subsequent assessments must be used to monitor progress and may help with modifications to the treatment approach.

Goals

The goals of rehabilitation should not be viewed as separate entities, as all problems are interrelated. The rehabilitation professional must consider the health issues of the employee, functional status and workplace in order to begin the process of establishing short-term, intermediate and long-term goals. From a healthcare perspective, health promotion and IPS must be implemented to provide a holistic approach to the constantly changing workplace (Ekberg, 1995)

Intervention

A rehabilitative process involves a four-step process. This process includes an evaluation, treatment, re-evaluation and analysis. At each step of the process professional practices are applied and expected outcomes determined. This process is discussed below.

Step 1: Evaluation

In this first step, the employee is evaluated in accordance with the standard operating procedure for injury. The physical, mental and social status of the employee are assessed using standardized testing together with the identification of functional limitations, contra-indications to intervention and potential to improve. A medically based functional capacity evaluation may be conducted to determine the ability of the employee to conduct activities of daily living, work tasks and leisure pursuits (King, Tuckwell & Barrett, 1998). This information is then compared with the specific requirements of their work, leisure and home environment. If the rehabilitation process is expected to be long-term or certain limitations are expected to be permanent, then further evaluation of the work and home environment may be required. The main focus of the evaluation is the employee. The home environment of the employee is only evaluated if the consequences of the injury justify such an

evaluation (McCullagh, 2006; Pflingsten, Frantz, Hildebrandt, Saur & Seeger, 1996).

Step 2: Treatment

The step includes specific treatment based on the nature of the injury, subsequent disability and functional capabilities. The majority of treatment is therapeutic in nature, using techniques such as graded muscle strengthening, focused physical exercise, splinting, cognitive retraining and physical modalities such as ultrasound and heat (Foye et al., 2007). The treatment regime is tailored to suit the individual needs of the employee and gradually increases in accordance with the demands of work that the employee has to eventually resume. Intervention also includes the alteration of the work environment and the restructuring of the home environment for those with long-term or chronic disabilities (McCullagh, 2006; Pflingsten, Frantz, Hildebrandt, Saur & Seeger, 1996). Changes are gradual and may become permanent if the employee has achieved the highest functional level.

Step 3: Re-Evaluation

Throughout the intervention process, re-evaluation occurs on a periodic basis. Baseline values are established during the initial evaluation. Subsequent re-evaluation values are compared against these baseline values to monitor the progress of the employee. These values are of importance in the goal setting process. Re-evaluation includes physical measures of strength, co-ordination, range of movement (ROM) and task performance measures such as level of independence during activities of daily living (Foye et al., 2007).

Step 4: Analysis

During analysis, all significant values are analyzed to identify the strengths and weaknesses of the rehabilitative management. The analysis is only effective if the information gathered is thorough to identify problems and solutions. All information gained during the analysis phase is used to assess the adequacy of the evaluation, intervention and re-evaluation processes. Professional judgements are made and areas of practice are applied to the specific needs of the employee. Thus begins the process of transformation in which information can be integrated to achieve the goals of enhancing employee performance, promoting health and preventing injury (Garg & Moore, 1992).

CONCLUSION

Expert rehabilitation is essential for occupational health and injury prevention strategies to be successful. The outcome of occupational health rehabilitation practice is to deliver a flexible range of pro-active, forward thinking and cost effective OH and IPS designed to meet the specific needs of both the employee and organisation. This can be achieved through the integration of available resources together with early management in order to create the elements of a comprehensive programme for promoting health and preventing injury within the workplace.

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