

A CRITICAL REVIEW OF THE LITERATURE ON DISABILITY MANAGEMENT IN THE CONSTRUCTION INDUSTRY

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This paper reports on a review of the literature on disability management in the construction industry. The review explores the concept of disability management and existing guidance in the field in Canada before exploring the pillars of effective disability management programs. The review extends to investigating the literature on the topic as it pertains to the construction industry, focusing on the extent to which disability management practices are implemented in the industry and barriers to their successful implementation. The review is being conducted in preparation for an initiative undertaken by the Construction Engineering and Management at the University of Manitoba and funded by the Workers' Compensation Board of Manitoba. This initiative aims to evaluate the maturity of disability management practices in the Manitoban construction industry. The review shows how disability management as a concept developed in the mid-1980s. Its founding pillars include organizational policies and procedures; recruitment practices; employment retention practices; rehabilitation practices; modified or alternate work opportunities; awareness, training and promotion practices; involvement and collaboration; and monitoring and evaluation. While the concept appears to be constantly evolving, its application in construction remains limited. Only six research papers pertaining to disability management in construction were found, highlighting the need for more work on the topic. The review of these papers shows how the industry's disability management practices remain inadequate. Disability management continues to be seen as a burden to construction employers for the most part, making it difficult to challenge traditional perceptions. Using maturity modelling to evaluate the effectiveness of these practices with the ultimate aim of improving them appears to be an important research opportunity that needs further investigation.

Keywords: disability management, maturity modelling, return-to-work.

INTRODUCTION

In spite of decades of research and practice, there is incongruity between what employees with disabilities need in terms of physical arrangements (Palmon *et al.*, 2004) or organisational policies (Stone and Colella, 1996) and what is offered to them. Research shows how employers shy away from hiring people with disabilities because of negative expectations about performance (Kulkarni and Valk, 2010). There is a general assumption among employers that coworkers may not value the contributions of people with disabilities or may react negatively to them (Lengnick-Hall *et al.*, 2008). This is despite research showing how people with disabilities perform as well as other people (Kulkarni and Valk 2010). They are as committed and motivated, have

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fewer accidents in the workplace and do not have higher absenteeism or turnover rates (Colella, 1994; Lengnick-Hall, Stone and Colella, 1996). Liff (1999) argues how non-discriminatory recruitment approaches can actually enhance long-term profitability. This is significant for an industry like the construction industry where injury rates are staggeringly high, resulting in lower productivity and higher costs. In Manitoba, Canada specifically, construction related injuries accounted for approximately 14% of all injuries (Worker's Compensation Board of Manitoba (WCB) 2012), reinforcing the need for regulations and programs that ensure the fast return of workers with disabilities to the workplace and protect them from discrimination.

The paper provides a critical review of the current state of research in disability management in general and in the construction industry in particular, as well as existing guidance in place to support disabled construction workers. The review additionally identifies the pillars of effective disability management programs in the workplace. This is in preparation for a research conducted by the Construction Engineering and Management (CEM) Group at the University of Manitoba to evaluate disability management in the Manitoban construction industry and its relation to safety performance. This research seeks to develop a model to evaluate the maturity of the construction industry's disability management practices, to be used as a tool by construction organizations for benchmarking purposes. This is to shed more light on the significant gaps in the literature and address them by highlighting future research opportunities.

OVERVIEW OF DISABILITY MANAGEMENT

Disability management (DM) was developed by employers to control disability costs beginning in the mid-1980's (Galvin, Tate, and Schwartz, 1986). The concept built on older vocational rehabilitation programs for injured workers and gradually evolved to incorporate the return to work (RTW) model. As regulations became more stringent, aspects such as safety, ergonomics, ecological assessment and specialized case management strategies were integrated to it (Hursh, 1997; Rosenthal *et al*, 2005). Over time, the service-based approach evolved to a workplace based approach and took into account aspects such as organizational development, safety, risk management, and case management (Rosenthal, *et al*, 2007). These aspects became the foundations of disability management policies and programs. Disability management can be defined as a workplace prevention and remediation strategy that seeks to prevent disability from occurring. Lacking that, it aims to intervene following the onset of a disability using coordinated, cost-conscious and quality rehabilitation services to ensure continued employment of those experiencing functional work limitations (Akabas, Gates, and Galvin, 1992; Rosenthal, *et al*, 2007). In essence, it incorporates three key domains: prevention, early intervention and proactive RTW interventions to reduce the impact of injury and disability and to accommodate those experiencing functional work limitations.

According to Rieth, *et al*. (1995), DM involves three levels of disability prevention: primary prevention, intended to prevent on the job and off the job disabilities; secondary prevention, intended to minimize their impact and cost; and tertiary prevention, intended to encourage rehabilitation and RTW. In practice, most firms primarily concentrate on tertiary prevention, that is, intervene upon the occurrence of injury. Intervention at this level essentially limits the number of strategies that can be implemented without substantial cost implications, hence the reluctance my firms to formally adopt DM policies. According to Tshobotlwane (2005), employers

frequently overstate the cost of adjustments needed to accommodate disabled people in the workplace as an excuse to discreetly discriminate against them. The overriding focus on tertiary interventions greatly limits the effectiveness and impact of DM. DM is a model that should protect from work hazards and promote improvements in personal health behaviours (Angeloni, 2013). Unfortunately, this aspect is hardly considered when implementing DM in workplaces because of the focus on tertiary prevention to the detriment of primary and secondary prevention. Although prevention is the best way to protect employees and control costs, workplaces need a way to manage resources and assist employees should injuries and illnesses occur. A comprehensive DM program should enable early preventative actions and intervention, helping to alleviate many of the concerns experienced by injured or ill employees. It should improve communication and clarify the roles and responsibilities of the participants involved. It should also assist employees with many of the issues encountered on their way back to work. According to La Torre *et al.* (2009), key success factors for DM include *“injury prevention and safety programs, health promotion and wellness programs, early intervention and RTW plans, benefit programs design, internal and external communication system, education, worksite accommodations, transition work options, and identification of key worksite personnel”*. According to Lingard and Saunders (2004), construction firms pursue DM as a strategic organisational response to the globalization of the company's activities and the growing multiculturalism of workforces and a competitive necessity.

The success of DM programs has consistently been measured in terms of cost containment, administrative efficiency, and reduced complexity of benefit systems for the employer (Angeloni, 2013). DM advantages include improved employee health and safety and, thus, improved morale and satisfaction (Calkins *et al.*, 2000; Harder *et al.*, 2006). Therefore construction companies that implement DM programs should benefit not only from savings in direct costs but also in indirect costs. Indirect cost savings include lower disability insurance premiums due to a reduction in overall disability claims (Hargrave *et al.*, 2008; Kuhnen *et al.*, 2009). The premise of DM is that comprehensive policies that take into account the physical and organizational work environment as well as the personal health risks of individuals are more effective than those that consider each separately (Angeloni, 2013).

GUIDANCE ON DISABILITY MANAGEMENT

Research shows prevalent discrimination in the labour market against people with disabilities (Reynolds *et al.*, 1997; Duckworth *et al.*, 1998). In response to this, several countries have enacted legislation such as the Americans with Disabilities Act and the UK Disability Discrimination Act to protect their rights. Although Canada does not have separate legislation to protect their rights (Shrey and Hursh, 1999; Prince, 2010), over the last few decades, two pieces of legislation have been introduced at the federal level: the Canadian Charter of Human Rights and the Duty to Accommodate. These require employers to provide reasonable accommodation to workers to enable them to do their jobs. However, these regulations also have *“undue hardship”* clauses that can allow employers to circumvent this obligation. Additionally, Canada has invested heavily at the federal and provincial levels in the development of training programmes for DM, with the goal of creating safer work environments that accommodate employees with disabilities (OECD, 2010). An example includes the Targeted Wage Subsidies Programme, designed to encourage employers to hire employees with disabilities by temporarily subsidizing up to 100% of their wages to address their workplace accommodation needs (OECD, 2010). Despite these legislations, disabled

persons still face widespread employment discrimination. Although Canada does have human rights laws forbidding discrimination based on disability, this has not transpired into a federal disability act, resulting in very little progress for Canada (Burns and Gordon, 2010), particularly regarding employment equity. Only three out of ten provinces have their own disability legislation: Ontario's Accessibility for Ontarians with Disabilities Act (Government of Ontario, 2001 (revised 2005), Nova Scotia's Community ACCESS-Ability Program (Government of Nova Scotia 2005) and Manitoba's Accessibility Act (2013). The Council of Canadians with Disabilities (2005) stressed the need for a federal disability act and for integrated services for people with disabilities to ensure inclusiveness and decrease systemic barriers. Their report highlighted the inadequacy of existing policies in doing so. The disparities between federal and provincial legislation and programs seem to compound the problem, thus the need in Canada for programs that work in parallel rather than against each other (Burns and Gordon, 2010).

A major proponent in monitoring and regulating DM practices in the Canadian workplace includes the Workers Compensation Acts enacted in every province and their regulating bodies. The concept of workers compensation originated in Germany, Great Britain and the United States between the late 1800s and early 1900s. In Canada, workers compensation is managed by Workers Compensation Boards operating under provincial regulation (OECD, 2010). Federal employees who are not under provincial jurisdiction are covered by the Federal Government Employees Compensation Act. The aim of these acts is to provide compensation to injured workers regardless of fault, ensure their timely and safe return to work and prevent workplace injuries and diseases. Premiums are paid by employers to an "*Accident Fund*" and rated according to industry classes and occupations, and individual employer's experiences. The more work injuries or illnesses occur at the workplace, the higher the premium. Under the Workers Compensation Act and Occupational Health and Safety Regulations, employers are responsible for short and long-term disability benefits to employees who experience work-related injuries and illnesses. Premiums accumulated are directed towards providing medical and rehabilitation aid, supplementing lost wages to injured workers and paying for board administration fees.

At the industrial level, construction companies have an obligation to their employees with respect to disability management (DM), whether there are formal procedures in place or not. In Manitoba, RTW programs implemented to manage disability involve reporting and documenting work injuries, offering alternate work, or modifying existing work (WCB 2010). Modifications include altering aspects related to workers' duties, responsibilities, work location, work hours or any combination of these. Although agencies like the WCB encourage and promote the implementation of DM in workplaces, many construction firms do not have formal DM and return-to-work programmes and practices (Ormerod and Newton, 2004). This is because of the limited opportunities for alternate or modified work in construction, and the fact that construction work is varied and changes from project to project. The difficulties associated with constant work restructuring in addition to the cost implications of doing so act deter firm from adopting formal DM programs.

FOUNDING PILLARS OF DISABILITY MANAGEMENT

This literature review involved identifying the founding pillars of disability management through reviewing a number of existing relevant initiatives and handbooks in the UK, Canada and United States. These include the Effective

Workplace Disability Management Program, Canada (2013), the National Institute of Disability Management and Research's Disability Management in the Workplace Guide (2003) and the Employer's Forum on Disability (EFD) Action Plan (UK). DM best practices can be categorized into the following eight founding pillars.

Organizational policies and procedures

The foundation of a disability management program is based on the development of an organisational policy and organizational procedures, their dissemination and implementation, and the development and implementation of evaluation mechanisms. These policies and procedures usually include: a mission statement for the program, the program objectives, details on program administration and accountability and definitions of the roles and responsibilities of key stakeholders (National Institute of Disability Management and Research's Disability Management in the Workplace Guide, 2003). They also include information on program eligibility, roles and responsibilities of other departments and partners (e.g., occupational health and safety, benefits providers), and grievance-resolution procedures (OHSAH, 2010). The comprehensiveness of the program is dependent on the size of the company. Saunder and Lingard (2014) found that small construction firms did not have formal processes in place to manage disability management and therefore needed greater assistance than medium-to-large companies. This problem is compounded by the fact that existing legislation does not require organizations to adopt formal DM policies.

Recruitment practices

This encompasses practices that ensure the inclusion of disadvantaged people in the recruitment and job selection process. Examples include interviewing applicants with a disability who meet minimum job requirements, considering them on their abilities (IRS, 1996, Dibben, *et al*, 2000) and inquiring about what can be done to better accommodate them (IRS, 1996, Dibben, *et al*, 2000).

Employment retention practices

These practices aims to ensure that employees who become disabled or injured remain employed (IRS, 1996, Dibben, *et al*, 2000) and are not wrongfully terminated.

Rehabilitation practices

This set of practices aims to ensure optimal functioning of employees who experience a disability by improving their interaction with the physical environment through the provision of physical accommodation measures (The Conference Board of Canada, 2013). Examples of such measures include technical aids and devices; accessible transportation; handrails and ramps; accessible elevators, workstations and washrooms. The nature of construction projects, with the majority of the work centered on site projects greatly impedes the provision of specific accommodation for injured and disabled workers.

Modified or alternate work opportunities

This includes the completion of a job needs assessment to determine how the DM program can best meet the needs of employees with disabilities (Brooker *et al*, 2012). In some cases, it may not be possible or financially viable for employees to return to their original jobs, and transitional job options may not be immediately obvious. In this situation, a comprehensive analysis of employees' skills is done to modify their original jobs or identify alternate jobs within the organization for which the employee would be more suited (The Conference Board of Canada (2013). Modified work can

reduce disability-related costs, facilitate workers' recovery and return to work and reduce the likelihood of similar injuries. Such practices also ensure that the company is fulfilling its legal obligations (National Institute of Disability Management and Research's Disability Management in the Workplace Guide, 2003). While the provision of alternate or modified work can be challenging in construction, Welch *et al.* (1999) identify a number of modifications that can be made to the jobs of injured construction workers to help return back to them.

Training and promotion practices

Effective communication and promotion of a DM program ensures widespread understanding and support for it within the organization (OHSAH, 2010). Open communication builds trust among employees and helps address negative attitudes about the program. However, this can be challenging in conventional building projects that are characterized by miscommunications and adversarial relationships, thus the need to train supervisors and raise awareness on DM in the workplace. This should help address the stigma associated with it and facilitate the successful return of injured workers (Brooker *et al.*, 2012). The provision of training programs to RTW coordinators and supervisors should ensure the effective implementation of related practices and promote the employment of people with disabilities (National Institute of Disability Management and Research's Disability Management in the Workplace Guide, 2003).

Involvement and collaboration

Collaboration is essential to the successful management of disability in the workplace. A DM committee helps take into consideration the perspectives of employees with disabilities and other stakeholders. The committee can inform union leaders of upcoming changes to the program for example and involve them in the decision-making process for the ultimate benefit of the employer and employees (Brooker *et al.*, 2012). It can also ensure stakeholders' access to information and discuss with them workers' needs and functional capabilities. It can also facilitate face-to-face meetings between employer and employees to address RTW issues and enable supervisors to address employees' concerns early on (OHSAH, 2010).

Monitoring and evaluation

To succeed, a workplace program must be evaluated regularly. This allows the employer to identify necessary program modifications and improvements and analyze injury and illness statistics (OHSAH, 2010). It also helps justify program costs and assess its benefits. The evaluation ensures that the program meets not only its overall objectives, but employees' needs as well. The RTW plan for each employee should also be evaluated accordingly. This is to ensure that employees are not aggravating their physical or mental health conditions by returning to work too quickly and that their individual needs have been met effectively (The Conference Board of Canada, 2013).

DISABILITY MANAGEMENT IN CONSTRUCTION

Research on DM in construction is still in its early stages, with very few journal papers published on the topic. A study by Clarke *et al.* (2009) analyzed the British and Dutch approaches to DM in the construction industry and found the Dutch model to be more skewed to the social model, while the British one was considerably more regulated. The authors found the construction industry in both countries to be highly disabling and exclusive. The nature of the industry is such that many construction

workers do not have a long-term relationship with their employers; compounding the unwillingness of employers to accommodate them should they get injured (Welch *et al.*, 1999, Lingard and Saunders, 2004). The study recommended sector specific approaches in disability policy that further narrows down on specific dynamics within different sectors. Small construction firms are also less able to accommodate injured workers than larger ones because they are less likely to have the resources to do so (Kenny, 1999, Lingard and Saunders, 2004). Therefore, workers in small firms are more likely to suffer if injured than workers in larger ones (Cheadle *et al.*, 1994). Many employers perceive that people with disabilities don't have a place in the construction industry (Newton and Ormerod, 2005; Tshobotlwane, 2005), with new entrants facing more challenges than returning ones. This is because employers are less likely to recruit people with disabilities than to take back ones disabled because of an injury on the job (Newton and Ormerod, 2005).

The review also shows that there is little to no formal practices in place to support construction workers with disabilities and that employers are ready to comply with existing legislation only when adjustments to do so are minor and inexpensive (Tshobotlwane's 2005, Newton and Omerod 2005). Construction employers are also less likely to have such policies and practices than employers in other industries (Newton and Ormerod 2005). Tshoboltwane's (2005) survey of employers and workers with disabilities in the South African construction industry found the majority of employers ignorant of the Employment Equity Act Provisions. Employers who had complied with the act found the cost to do so negligible. This directly contradicts the findings of Lingard and Saunders (2004) who through their study deducted that most construction companies regarded DM to have increased their operating costs with negligible benefits in terms of worker output. Additionally, firms were reluctant to adopt and implement formal rehabilitation and RTW programs because of the difficulty with providing suitable alternate work for disabled persons. Lingard and Saunders (2004) found that construction injuries usually led to long-term disability: a disturbing fact given the lack of formal polices in place to prevent this. Unlike the results by Newton and Omerod (2005), employers surveyed by Lingard and Saunders (2004) thought disability management practices increased operating costs but provided little to no return in terms of reducing lost workdays.

Jobs for workers with disabilities automatically excluded by employers included "*ladder climbing, walking on rough ground, tunneling, working at height, working in confined spaces, working on the railways*" (Newton and Omerod 2005). In their research, Smallwood and Haupt (2008) found that physical impairment made workers with disabilities more suited to administrative work.

A later study by Omerod and Newton (2013) used interviews and mini focus groups to investigate barriers to the employment of young people with disabilities in the UK construction industry. The study revealed the need for inclusive approaches that would treat workers with disabilities equally rather than favourably. The industry including both employers and professional institutions also needed to raise awareness on the range and scope of opportunities available for young workers with disabilities to dispel the myths that construction work is only for able-bodied, fit men. Smallwood and Haupt (2008) recommended that governments provide incentives to encourage the employment of people with disabilities.

CONCLUSION

Overall evidence suggests that an effective disability management program is needed to ensure a healthy and inclusive workforce, yet many in Canada have not yet adopted the type of multi-faceted approach required for this, especially in construction. The problem is complex and requires the collaboration of all industry stakeholders to reduce the burden of workplace disability and challenge traditional perceptions. This research aimed to review the literature surrounding the concept of disability management in general, and in relation to the construction industry specifically. This is in anticipation of a study conducted by the CEM Group at the University of Manitoba with funding from the Workers Compensation Board of Manitoba to evaluate the maturity of disability management practices in the Manitoban construction industry in relation to safety performance. The literature review covered the concept of DM, briefly identified the pillars for a successful DM program and explored guidance in Canada aimed at promoting equality in the workplace. The findings of the review reveal the inadequacy of formal DM programs employed by construction firms and an overall hesitance towards integrating disabled persons in the industry. The fact that only six research papers pertaining to DM in construction were found, none of which focusing on Canada, highlights the need for further research on the topic. This is essential to enable the move towards a more inclusive environment for all people irrespective of their disabilities.

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