

# At Work and Impaired?

By Dianne Dyck

Many workers would be hard-pressed to swear that they have never been at work and impaired. Now, I am sure that this bold statement will raise a few eyebrows, but think about it.....

*Impairment* is defined as experiencing a state of diminished, reduced or damaged state of being<sup>1</sup>. According to the Meriam-Webster Dictionary, *impairment* is “[being in] an imperfect or weakened state or condition: such as [being] diminished in function or ability: lacking full functional or structural integrity; [or] being unable to function normally or safely (as when operating a motor vehicle) because of intoxication by alcohol or drugs.”<sup>2</sup>

The purpose of this article is to explore the term *impairment*, to identify its relevance in today’s workplaces, and to discuss what the OHN can do mitigate the negative impacts of the impaired worker.

## Impairment

*Impairment* stems from many sources. Most people relate impairment with a disease state, or an injury, or a substance-related condition. Of course, those are the obvious sources; yet, there are more to consider.

The World Health Organization recognizes *impairment* as being “a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations”.<sup>3</sup> This broader definition encompasses more than the traditional sources of impairment, and includes the negative effects of fatigue, of shift work, of prescription medication use, of over-the-counter medication use, of medication interactions, and of aging.

### ***Disease State***

Illness and injury can result in worker disability, that is, the inability to uphold a functional role in society. This form of impairment can manifest as activity impairment and/or participation restrictions.<sup>4</sup> Workers are away from the workplace, or functioning in a reduced capacity. In either situation, worker productivity is reduced.

### ***Substance-induced State***

As the result of substance use, the worker can be working but functionally incapacitated. The degree of impairment varies depending on the dosage, the properties of the substance, the gender and age of the user, the length and time since taking the substance, the worker’s level of tolerance for the substance, and/or the nature of the activity. Activities involving concentration,

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<sup>1</sup> Dictionary.com (2017). Impairment, *Dictionary.com*. Available at: <http://www.dictionary.com/browse/impairment>

<sup>2</sup> Merriam-Webster (2017). Impairment, *Merriam-Webster Dictionary*. Available at: <https://www.merriam-webster.com/dictionary/impaired>

<sup>3</sup> World Health Organization (2017). Disabilities, *Health Topics, WHO*. Available at: <http://www.who.int/topics/disabilities/en/>

<sup>4</sup> World Health Organization (2017). Disabilities, *Health Topics, WHO*. Available at: <http://www.who.int/topics/disabilities/en/>

fine motor skills, information processing, deductive reasoning, quick response time, and memory are often the most impacted.

### ***Fatigue State***

In today's economy, many people work two or more jobs to survive. Our society is recognized as being chronically sleep-deprived: "Canada is the third most sleep-deprived country, with nearly a third (31%) of the Canadians feeling like they don't sleep enough".<sup>5</sup> In particular, a third of the working males get 4 to 6 hours of sleep each night.<sup>6</sup>

Fatigue, due to the lack of sleep, is strongly associated with functional and cognitive impairment<sup>7</sup>: vigilance<sup>8</sup>, cognitive performance<sup>9</sup>, memory, problem-solving, planning, and even the use of language (verbal fluency), can be negatively impacted.<sup>10</sup>

These types of impairment are known to be associated with workplace incidents, such as transportation accidents<sup>11</sup>, injuries, medical errors<sup>12</sup>, reduced quality of care<sup>13</sup>, and errors in judgement. However, these impairments also reduce worker productivity: attention to detail, learning and creativity are all negatively impacted.

The term, *presenteeism*, is used to denote the employee's presence at work, but reduced productivity due to fatigue, illness, injury and/or psychological disturbances. Presenteeism has been reported to cost employers nine times the cost of employee absenteeism.<sup>14</sup>

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<sup>5</sup> Aviva (2016). *Health Check: UK Report*. Available at:

[file:///C:/Users/degdy/Downloads/Aviva\\_Health\\_Check\\_Report\\_SECURED\\_13.10.16.pdf](file:///C:/Users/degdy/Downloads/Aviva_Health_Check_Report_SECURED_13.10.16.pdf)

<sup>6</sup> Canadian Men's Health Foundation (2016). "Study Finds a Third of Canadian Men Are Sleep Deprived", *News, Canadian Men's Health Foundation*, July. Available at: <https://menshealthfoundation.ca/study-finds-third-canadian-men-sleep-deprived>

<sup>7</sup> Nijrolder, I., van der Windt, D., & van der Horst, H. (2008). "Prognosis of fatigue and functioning in primary care: a 1-year follow-up study", *Annals Family Medicine*, 6(6), 519-527. doi: 10.1370/afm.908.

<sup>8</sup> Alhola, P. & Polo-Kantola, P. (2007). "Sleep deprivation: Impact on cognitive performance", *Neuropsychiatr Dis Treat.*, 3(5), 553-567.

<sup>9</sup> Durmer JS, Dinges DF. Neurocognitive consequences of sleep deprivation. *Semin Neurol* 2005;25(01):117-29.

<sup>10</sup> Miller, M., Wright, H., Hough, J. & Cappuccio, F. (2014). "Chapter 1: Sleep and Cognition," University of Warwick, Warwick Medical School, Coventry, UK. Available at:

[http://www2.warwick.ac.uk/fac/med/research/mhwellbeing/sleep/sleeppublications/sleep\\_and\\_cognition\\_2014.pdf](http://www2.warwick.ac.uk/fac/med/research/mhwellbeing/sleep/sleeppublications/sleep_and_cognition_2014.pdf)

<sup>11</sup> Miller, M., Wright, H., Hough, J. & Cappuccio, F. (2014). "Chapter 1: Sleep and Cognition," University of Warwick, Warwick Medical School, Coventry, UK, 15. Available at:

[http://www2.warwick.ac.uk/fac/med/research/mhwellbeing/sleep/sleeppublications/sleep\\_and\\_cognition\\_2014.pdf](http://www2.warwick.ac.uk/fac/med/research/mhwellbeing/sleep/sleeppublications/sleep_and_cognition_2014.pdf)

<sup>12</sup> Miller, M., Wright, H., Hough, J. & Cappuccio, F. (2014). "Chapter 1: Sleep and Cognition," University of Warwick, Warwick Medical School, Coventry, UK, 10. Available at:

[http://www2.warwick.ac.uk/fac/med/research/mhwellbeing/sleep/sleeppublications/sleep\\_and\\_cognition\\_2014.pdf](http://www2.warwick.ac.uk/fac/med/research/mhwellbeing/sleep/sleeppublications/sleep_and_cognition_2014.pdf)

<sup>13</sup> Miller, M., Wright, H., Hough, J. & Cappuccio, F. (2014). "Chapter 1: Sleep and Cognition," University of Warwick, Warwick Medical School, Coventry, UK, 10. Available at:

[http://www2.warwick.ac.uk/fac/med/research/mhwellbeing/sleep/sleeppublications/sleep\\_and\\_cognition\\_2014.pdf](http://www2.warwick.ac.uk/fac/med/research/mhwellbeing/sleep/sleeppublications/sleep_and_cognition_2014.pdf)

<sup>14</sup> Aldana, S., *Top Five Strategies to Enhance the ROI of Worksite Wellness Programs*, Wellness Council of America (February 2009), available online at: [http://www.welcoa.org/freeresources/pdf/top\\_5\\_strategies.pdf](http://www.welcoa.org/freeresources/pdf/top_5_strategies.pdf)

Shiftwork encompasses an alteration in the worker's circadian rhythm, as well as sleep alterations. Both can negatively impact the worker's ability to remain alert, to make decisions, to remember details, and to respond in a timely manner.<sup>15</sup>

### **Diminished Capacity State**

With over 20% of today's full-time workforce being over the age of 60 years, workplaces are witnessing the effects of aging. Aging is manifested by:

- increased morbidity due to sleep deprivation, chronic health conditions, increased use of medication; and
- functional inability to undertake their previous job tasks.

For example, the older worker is more likely to experience changes in vision, hearing, muscle strength, mobility, motor performance, fine motor skills, perceptual abilities<sup>16</sup> and response times. Likewise, with aging, comes sleep changes and the related cognitive decline<sup>17</sup>.

### **Risk Management: The Employer Role**

Risk management involves making and implementing decisions to minimize possible adverse effects of accidental and business losses on an organization. It is the systematic application of the organization's planning, organizing, leading, and controlling functions to:

- anticipate and identify accidental loss exposures;
- evaluate the related risk;
- work to avoid or eliminate hazards; and
- attain an acceptable level of risk.<sup>18</sup>

Risk, in this sense is defined as is a state in which losses are possible. It can be defined as the probability of loss of that which we value.<sup>19</sup> Risk can also be perceived as an opportunity that can present either as a gain, or as a loss.<sup>20</sup>

In terms of disability management, the noted risks to Canadian employers are high annual rates of employee absences, legal obligations, financial losses, and societal expectations. There are many pieces of legislation that impact and influence the field of disability, namely the Canadian

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<sup>15</sup> Miller, M., Wright, H., Hough, J. & Cappuccio, F. (2014). "Chapter 1: Sleep and Cognition," University of Warwick, Warwick Medical School, Coventry, UK, 15. Available at: [http://www2.warwick.ac.uk/fac/med/research/mhwellbeing/sleep/sleeppublications/sleep\\_and\\_cognition\\_2014.pdf](http://www2.warwick.ac.uk/fac/med/research/mhwellbeing/sleep/sleeppublications/sleep_and_cognition_2014.pdf).

<sup>16</sup> Voelcker-Rehage, C. (2008). "Motor-skill learning in older adults—a review of studies on age-related differences", *European Review of Aging and Physical Activity*, 5:30. DOI:10.1007/s11556-008-0030-9.

<sup>17</sup> Miller, M., Wright, H., Hough, J. & Cappuccio, F. (2014). "Chapter 1: Sleep and Cognition," University of Warwick, Warwick Medical School, Coventry, UK, 15. Available at: [http://www2.warwick.ac.uk/fac/med/research/mhwellbeing/sleep/sleeppublications/sleep\\_and\\_cognition\\_2014.pdf](http://www2.warwick.ac.uk/fac/med/research/mhwellbeing/sleep/sleeppublications/sleep_and_cognition_2014.pdf).

<sup>18</sup> Dyck, D. (2017). *Disability Management: Theory, Strategy and Industry Practice*, 6<sup>th</sup> ed. Markham, ON: LexisNexis Canada Inc., at 1089.

<sup>19</sup> Covello, V., "Risk Communication Slides", available online at: <http://www.centerforriskcommunication.org>

<sup>20</sup> Dyck, D. (2017). *Disability Management: Theory, Strategy and Industry Practice*, 6<sup>th</sup> ed. Markham, ON: LexisNexis Canada Inc., at 1089.

Human Rights Legislation, Workers' Compensation Acts, privacy legislation, Occupational Health & Safety Acts, Employment Standards, Labour Law, *etc.*

Annually in Canada, full-time employees miss, on average, 7.8 workdays per year due to medical reasons, and 1.7 days due to family reasons. As such, Canadian employers face a risk of lost productivity for an average of 9.5 days. Given the average hourly wage for Canadian full-time employees is \$27.86, this translates to \$2,117.36 per employee per year.

Worker permanent disability puts employees at risk for withdrawal from the workforce and premature death.<sup>21</sup> This is a human capital loss and financial risk for the employer. Financial risks stem from the number of financial losses that the employer faces when an employee is away from work for medical reasons. Lost productivity, business interruption costs, disability claim costs, supplementary health care costs, worker replacement costs, time lost in rearranging work schedules, and increased insurance premium rates are but a few of the potential financial losses.

Societal expectations emanate from Canada being a country with a strong “social conscience”; as such, employers are expected to “do the right thing” by their employees. If they are perceived to fail in this expectation, then their corporate image and reputation suffers.

Today, the interest in risk management is higher than it has ever been.<sup>22</sup> Each year organizations/companies experience extensive security, product, people, property, and reputation losses. As a result, they turn to the field of Risk Management; the intent of which is to manage these business risks, thereby minimizing real and potential losses.

Risk management is ultimately the responsibility of the board of directors or senior management of an organization/company. They must decide the level of their “risk appetite”, their preferred system for risk controls, and how they will make management accountable for risk management within the organization and risk communication.<sup>23</sup>

The corporate governance issues that they need to address are:

- compliance versus due diligence;
- use of a checklist approach to risk management or not;
- the potential penalties for directors and officers;
- the potential impact that specific investment decisions might have on the organization; and
- the separation between risk management audit and risk management consulting functions.<sup>24</sup>

## **Risk Management: The OHN Role**

Occupational Health Nurses (OHNs) are involved in risk management situations and provide risk communications daily. In fact, an Occupational Health Program and Disability Management Program are risk management tools: they are a human resource “risk management approach” aimed at promoting employee well-being, preventing employee illness/injury, and mitigating employee medical absences and their related costs. They function to preserve human capital.

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<sup>21</sup> Scott-Marshall, H. (2015). “Long-term mortality risk in individuals with permanent work-related impairment”, *At Work*, Issue 79, available at: <https://www.iwh.on.ca/at-work/79/work-disability-puts-people-at-risk-of-premature-death-study-finds>.

<sup>22</sup> Meltzer, S., “Risk Management: 2010” (Presented at University of Calgary, Calgary, AB, March 31, 2005).

<sup>23</sup> Meltzer, S., “Risk Management: 2010” (Presented at University of Calgary, Calgary, AB, March 31, 2005).

<sup>24</sup> Meltzer, S., “Risk Management: 2010” (Presented at University of Calgary, Calgary, AB, March 31, 2005).

Occupational Health (OH) Nursing is “risk management” operationalized. Synonymous with every aspect of an Occupational Health and Safety Management System (OHSMS), OH Nursing risk management is aimed at minimizing the costs of pure risk at a reasonable cost. It is an administrative, managerial function like standard OH&S hazard identification and loss control practices, but more sophisticated and focused on potential risk.

Likewise, Disability Management serves a risk management function. A Disability Management Program is designed to control the human and economic costs of employee injury/illness, to convey a message that employees are valued, and to demonstrate compliance with the relevant legislation. As such, it is a risk management and risk communication approach designed to integrate all corporate programs and resources to minimize or reduce the losses and costs associated with employee medical absence regardless of the nature of those disabilities, as well as to prevent future occurrences.

### **Risk Management: Management of Worker Impairment**

Worker impairment is a major concern for Canadian employers. To effectively manage this risk, organizations are advised to use a combination of risk management approaches. The employer must uphold their legal duty to provide a safe and healthy workplace, as well as meet their business strategies and obligations. The OHN can assist the employer with these endeavours.

The employer must have policies and procedures addressing situations when worker impairment occurs. For example, an Occupational Health & Safety policy; OH&S program; safe work and operating procedures; and enforcement of each. The employer needs to ensure that work conditions such as work hours, work demands, pace of work, shiftwork, and travel requirements are evaluated in terms of their health impacts. If deemed hazardous, then the employer is obligated to remedy the situation as part of their OH&S legal obligation. Likewise, the employer must ensure that adequate resources and expertise exist to enable the identification and management of worker impairment.

The OHN is qualified and if positioned to do so, can take a leadership role in the management of worker impairment. In terms of health and safety promotion, and disease prevention, the OHN can support the workplace by:

- Ensuring workers are fit-to-work;
- Ensuring the worksite is free of uncontrolled hazards;
- Medically monitoring workers exposed to known hazards;
- Conducting risk assessments;
- Communicating the nature and severity of identified risks;
- Conducting human factor/ergonomic assessments and identifying suitable remedial actions;
- Participating in planning emergency response activities;
- Facilitating critical incident stress debriefing post-incident; and
- Assisting with the management of strategic OH&S issues.

In essence, OHNs contribute to promoting and maintaining worker health and safety, as well as workplace safety. By controlling losses, OHNs contribute to the enhancement of the organization’s profits.

### ***Disease State***

OHNs have a key role to play in the areas of injury/illness management and disability management. Through client advocacy — the activity associated with pleading or representing an employee's or organization's cause, OHNs act as a client liaison — the position of responsibility within an organization for maintaining communication links with external individuals, agencies or organizations. This translates into reputation management for the employee and organization.

OHNs are ideally educated, skilled, experienced and positioned within an organization to facilitate injury/illness management and disability management. They are competent at:

- Mitigating the workplace illness/injury through timely response and referral for medical treatment;
- Determining worker fitness to work;
- Managing injury/illness cases;
- Co-managing insurer (government/private insurers) responsibilities and actions;
- Coordinating disability management assistance;
- Assisting workers to successfully return to work in a safe and timely manner;
- Negotiating service provider contracts and activities;
- Evaluating the outcomes and determining the return on investment for the organization/company; and
- Conducting trend analyses with a view to illness/injury prevention and the introduction of suitable loss control measures.

The outcome is an assurance that the worker is fit to work, as opposed to being impaired due to the impact of illness/injury.

### ***Substance-induced State***

OHNs, as health professionals, are qualified to undertake a systematic, rational method of planning and providing individualized nursing care. A patient-centred, goal-oriented method of "caring", the nursing process involves five major steps:

- Assessment (of company/worker's needs);
- Diagnosis (of human response needs that nursing can assist with);
- Planning (of company/worker's care);
- Implementation/intervention (of care); and
- Evaluation (of the success of the implemented care).

This problem-solving process enables the OHN to determine the degree to which the substance-induced state impairs the worker's performance. Knowing the physical and cognitive demands of the worker's "own" job, the OHN can determine the degree of dissonance between the work demands and the worker's capabilities. If deemed impaired, then the OHN can activate corporate policies to eliminate the risk of having an impaired worker from the workplace. Secondly, the OHN can assist the employee to obtain appropriate medical and psychological assessment and treatment. Thirdly, when deemed recovered, the OHN can determine if the worker is indeed fit to work in his/her "own" job.

### ***Fatigue State***

As already noted, fatigue is pervasive and a real health risk in Canadian workplaces. The OHN can address worker fatigue through:

- Management/Union education on the negative impacts (short-term and long-term) of sleep deprivation;
- Worker education on the negative impacts (short-term and long-term) of sleep deprivation;
- Worker health surveillance<sup>25</sup> and assessment of fitness to work;
- Early intervention when required;
- Worker referral and treatment when appropriate; and
- Evaluation of the outcomes of action, in terms of the worker's fitness to work.

As for shiftwork, the OHN is well-versed on the health impacts of shiftwork (Figure 1). A combination of governance, stewardship, education and health surveillance can be used to protect workers and the organization from the negative health effects associated with shiftwork.

### ***Diminished Capacity State***

The aging workforce is a new workplace phenomenon. To effectively manage the related health effects of impairment, the OHN can intervene by providing:

- Management/Union education on aging and how to counteract the related impacts;
- Worker education on aging and ways to protect themselves against the related body changes;
- Worker health surveillance and assessment of the older worker's fitness to work;
- Early intervention when required;
- Worker referral and treatment when appropriate; and
- Evaluation of the outcomes of action, in terms of the worker's fitness to work.

### **Conclusion**

Worker impairment can be addressed, but it takes knowledge, expertise and available resources. Regardless of the cause, impairment can be effectively identified and addressed by OHNs using the OH Nursing process and practices.

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<sup>25</sup> *Health surveillance* is defined as a system of ongoing health checks, some of which are legally required. The value added to employers includes the early detection of illness/injury, gathering health risk information, identifying how work is impacting employee health and safety, detecting risks to worker health, and educating workers on workplace health and safety.

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