VOLUME 5

Best Practices for the Assessment *and Control of Psychological Hazards*

Best Practices Guidelines for Occupational Health and Safety in the Healthcare Industry

Government of Alberta

WORK SAFE ALBERTA

Credits

This document has been developed by the Government of Alberta, with input from:

- Alberta Employment and Immigration
- Alberta Health Services
- Alberta Continuing Care Safety Association
- The Health Sciences Association of Alberta (HSAA)
- United Nurses of Alberta
- Alberta Union of Provincial Employees
- Alberta Health and Wellness
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This Guidance Document is current to May 2011. The law is constantly changing with new legislation, amendments to existing legislation, and decisions from the courts. It is important that you keep up with these changes and keep yourself informed of the current law.

This Guidance Document is for general information only and may be applicable to assist in establishing of a compliant health and safety system at your work site. However, it is critical that you evaluate your own unique circumstances to ensure that an appropriate program is established for your work site. It is strongly recommended that you consult relevant professionals (e.g. lawyers, health and safety professional and specialists) to assist in the development of your own program.

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Section 1

Overview

Section 1: Overview

The healthcare industry includes complex, multi-faceted organizations as well as specialized facilities and service-providers. The nature of healthcare work requires close contact with a wide variety of people including co-workers, clients, families, and visitors. Health issues are often stressful, and it is not uncommon to see many different responses to stress from clients, residents, patients, families, and healthcare workers (HCWs). Societal issues may also predispose individuals to conditions or behaviours that may cause psychological effects to HCWs. Work organizational factors, health factors, and environmental factors have significant impacts on the psychological health of workers.

Focus

This volume focuses on best practices for the identification and control of work-related psychological stressors. While there will be some mention of personal stress management, these best practices will primarily deal with the causes and management of organizational stress.

Many excellent studies have been carried out to explore, define, quantify, and evaluate controls for psychological stressors in the workplace. This volume presents a brief overview of this very complex domain.

A best practice is a program, process, strategy or activity that:

- Has been shown to be effective.
- Can be implemented, maintained, and evaluated.
- Is based on current documented information.
- Is of value to, or transferable to, other organizations.

Best practices are living documents and should be reviewed and modified on a regular basis to maintain their validity, accuracy, and applicability. They may exceed, but cannot be less than, the requirements of Occupational Health and Safety (OHS) legislation. Best practices are widely considered to be effective in developing and improving OHS programs with respect to psychological hazards.

In Alberta, the requirements for occupational health and safety are outlined in the *Occupational Health and Safety Act (OHS Act),* Regulation (OHS Regulation), and Code (OHS Code). The *OHS Act,* Regulation, and Code are available for viewing or downloading on the Government of Alberta, Occupational Health and Safety (OHS) website at **www.worksafe.alberta.ca.** This document does not replace the *OHS Act,* Regulation, and Code and does not exempt anybody from their responsibilities under the legislation.

Resources

Printed copies of the Alberta *OHS Act,* Regulation, and Code may be purchased from the Queen's Printer at **www.qp.alberta.ca** or:

Edmonton
Main Floor, Park Plaza
10611-98 Avenue
Edmonton, Alberta T5K 2P7

Phone: 780-427-4952 Fax: 780-452-0668
Toll-free in Alberta via 310-0000

How this Document is Organized

In this document, psychological hazards and best practices for identifying, assessing, and controlling them are considered from several perspectives. First, the sources of the hazards are considered and models used to describe workplace stressors are presented. Next is a focus on specific hazards and mechanisms to control the hazards. Finally, a hazard assessment and control template is provided to assist workers in a variety of functional areas.

How to Use this Document

This document is designed to be used as a resource to assist those responsible for the design and implementation of occupational health and safety programs with a specific focus on psychological hazards. Sections will also be useful for workers and management in developing hazard assessments and determining appropriate control measures. This volume draws from published literature (see Appendix 1) to provide information about practices that are widely considered to be effective in developing and improving OHS programs with respect to psychological hazards. It is intended to provide an occupational health and safety perspective on psychological hazards for HCWs. Please note that recommendations in this document do not reflect legal requirements.

Consider these Alberta OHS resources for obtaining more information:

- Alberta Continuing Care Safety Association
  www.continuingcaresafety.ca.
- Alberta Health Services
  www.albertahealthservices.ca.
- Alberta Health and Wellness
  www.healthyalberta.com/HealthyPlaces/205.htm.
- Government of Alberta, Occupational Health and Safety
  www.worksafe.alberta.ca.
- Your organization's Joint Occupational Health and Safety Committee.
- Your organization's Occupational Health and Safety Department.
- Your Union Occupational Health and Safety Representative.
- Your department's Occupational Health and Safety Representative.

Section 2

Roles and Responsibilities

SECTION 2: Roles and Responsibilities

The Alberta *Occupational Health and Safety Act,* Regulation, and Code combine to set out the legal requirements that employers and workers must meet to protect the health and safety of workers. The following requirements are presented in consideration of psychological hazards in the healthcare workplace. These are **minimum** requirements.

General Responsibilities

Employers must ensure, as far as reasonably practical, the health and safety of all workers at their work site.

Employers must:

» Assess a work site and identify existing or potential hazards.

» Prepare a written and dated hazard assessment.

» Review hazard assessments periodically and when changes occur to the task, equipment or work environment.

» Take measures to eliminate or control identified hazards.

» Involve workers in the hazard assessment and control process.

» Make sure workers and contractors are informed of the hazards and the methods used to eliminate or control the hazards.

Workers must:

» Take reasonable care to protect the health and safety of themselves and other workers.

» Cooperate with their employer to protect the health and safety of themselves and other workers.

OHS Act, Section 2; OHS Code, Part 2

Legislated Requirements

Additional legal responsibilities are included in the hazard-specific sections found later in this document.

Legislated Requirements

What is a Hazard?

A hazard is any situation, condition or thing that may be dangerous to the safety or health of workers.

OHS Code, Part 1

Did you know?

What is a Psychological Hazard?

A psychological hazard is any hazard that affects the mental well-being or mental health of the worker and may have physical effects by overwhelming individual coping mechanisms and impacting the worker's ability to work in a healthy and safe manner.

Are Employers Required to Address Work-Related Psychological Hazards?

The legislation does not define psychological hazards, but they are included when it states that employers must ensure the health and safety of all workers at their work site. It is clear that psychological injuries may ultimately impact the health and safety of workers and their colleagues. The terms psychological and psychosocial hazards are often used interchangeably. In this volume, we will use the term psychological hazards. It is imperative that, as part of the work site hazard assessment, employers identify the continuum of work-related stressors and hazards that can impact workers and work to prevent them.

Section 3

Best Practice Features of an Injury and Illness Prevention Program

Section 3: Best Practice Features of an Injury and Illness Prevention Program

In the first volume of this series "Overview of Occupational Health and Safety in the Healthcare Industry", we looked at program elements that are common to all injury prevention programs. In this section, the program elements are aimed at controlling exposure to psychological hazards in the healthcare industry. The focus of the remaining sections of this volume is to provide in-depth information for identification, assessment, and control of psychological hazards in the healthcare industry.

Management Commitment and Leadership

Senior management should clearly indicate that management is committed to identifying and controlling psychological hazards in the workplace. Regardless of the tendency of many HCWs to consider psychological stressors to be "part of the job", management should be committed to consider workplace psychological hazards that could result in harm to the worker as unacceptable and strive to reduce the causes and to mitigate the impacts.

Hazard Identification and Assessment

The hazard assessment process includes the identification of potential hazards for jobs and tasks at each work site. Each hazard is then assessed for the level of risk that it presents. Frontline workers play a pivotal role in evaluating risk and determining appropriate precautions. Individual responses to psychological stressors should be factored into this evaluation.

Hazard Controls

Hazard controls should incorporate the accepted hierarchy of effective controls. The most effective control is elimination of the hazard, which should be considered first before using other controls. The next control strategy is the use of engineering or design controls.[1]

1 Occupational Safety and Health Administration. (2004). *Guidelines for Preventing Workplace Violence for Health Care & Social Service Workers.* Publication OSHA 3148-01R 2004.

Engineering controls reduce the possibility of exposure by controlling the hazard at its source. Examples of engineering controls for psychological hazards include:

- Workplace design to reduce the potential for violence (e.g. cameras, location of offices, desks, etc.).
- Access controls.
- Work design (e.g. flow of work, level of personal control of work, quantity and variation of work, etc.).
- Alarm systems.
- Physical and chemical restraints.

The next level of control is administrative. Administrative controls are directed towards individuals (workers and managers) and the culture of the organization. Examples include:

- Policies (e.g. workplace violence prevention and management, working alone, etc.).
- Management style.
- Communication processes.
- Change management processes.
- Safe work procedures.
- Fitness to work assessments.
- Training.
- Scheduling.
- Accommodation for workers with health issues.
- Employee Assistance Program (EAP).

Where engineering and/or administrative controls are not sufficient to control the hazard, a third choice is the use of personal protective equipment (PPE). PPE is not commonly used as a control for psychological hazards. Often several controls are applied simultaneously to effectively control a hazard.

Reporting Procedures

All incidents or near misses that result or could result in psychological injury should be reported and investigated. Due to the personal nature of these types of incidents, they often go unreported for fear of reprisal or blame. Unless incidents are brought forward and investigated, they are likely to be repeated. Reporting processes should be established in a way that respects the individual's right to privacy and does not put the person reporting the incident in jeopardy.

Record Keeping

Records are important for the smooth running and continual improvement of health and safety programs. Records of incident investigations should be analyzed for trends and used to determine corrective actions.

Communication and Collaboration

Good communication and a collaborative approach are important for an effective program. Worker participation in all aspects of program development is a key feature of a successful occupational injury and illness prevention program.

Program Evaluation and Continuous Quality Improvement

All programs need defined goals and objectives and a way to measure progress and outcomes. The program should provide a clear understanding of the scope and responsibilities for program evaluation. Regular monitoring of the program enables early detection of trends. Improvement opportunities can be identified, and the program can evolve to meet changing needs, best practices, and the organization's experience.

Section 4

Identification of Psychological Hazards in the Workplace

Section 4: Identification of Psychological Hazards in the Workplace

Concepts of Psychological Hazards

Previous volumes in this series addressed biological, chemical, and physical hazards of healthcare work. While these hazards may be the most readily observable and measurable, the risks related to psychological hazards also strongly impact worker and client safety and health.

In this volume, workplace psychological hazards are discussed. Many of these hazards result in physical injury or illness to workers as well as producing psychological impacts. In addition, psychological effects often lead to physical effects. For example, violence against a HCW may result in physical injury, but there will likely be a psychological impact that should be addressed. Stress may lead to physiological changes including cardiovascular impacts, disruptions of sleep, etc. Environmental factors such as noise or indoor air quality parameters may be measured as "within allowable levels" from the physical hazard perspective, but remain serious or constant enough to be annoying, irritating, or may engender fear of environmental impacts on health. In some cases, the psychological hazard identified may be a cause of stress or a result of stress, as individual tolerances come into play. For this reason, personal behaviours or conditions such as drug addiction, alcoholism, and depression may result from stress. Behaviours resulting from these conditions can, in turn, be a source of stress and are considered here.

Concepts of Workplace Stressors

There are several well-documented approaches to describe the relationship between workplace stressors and their impacts on workers. Each model articulates specific factors that should be balanced to provide a healthy workplace. While individual impacts may be mitigated by personal factors, there are certain workplace stressors that are identified as having the potential to impact most workers. In any discussion about workplace stressors, it is important to recognize that stress is not inherently a negative factor.

Did you know?

Stress is a psychological and physiological response to demands. In many cases, stress encourages growth and learning, can feel exciting, and can provide workers with a sense of value and accomplishment.[2] "Good stress" is also known as eustress, whereas stress that overwhelms the body's responses is considered distress or job strain.

Problems arise when the level of stress does not match the worker's knowledge, abilities, and control of their work and environment. Because people perceive levels of stress differently, individual reactions to stress may vary considerably.

The World Health Organization[3] defines a healthy job as "one where the pressures on workers are appropriate to their abilities and resources, to the amount of control they have over their work, and to the support they receive from people who matter to them."

According to the World Health Organization document "Stress at the Workplace", stress related hazards can include the content of work and the context of work. Examples of these are summarized in the following table.

Work Content that may impact stress	Work Context that may impact stress
» Job content (monotony, under-stimulation, meaninglessness of tasks, lack of variety, etc.) » Work load » Work pace (too much or too little to do, work under time pressure, etc.) » Working hours (strict or flexible, long and unsocial, unpredictable, badly designed shift systems) » Participation and control (lack of participation in decision-making, lack of control over work processes, pace, hours, methods, and the work environment)	» Career development, status and pay » Role ambiguity » Interpersonal relationships (unsupportive supervision, bullying, abuse, violence, isolated work, poor relationship with co-workers, etc.) » Organizational culture (poor communication, poor leadership, lack of behavioural rule, lack of clarity about objectives, structures and strategies) » Work – life balance (conflicting demands, lack of organizational policies and rules to support work-life balance)

For many HCWs, there is stress related to dealing daily with illness, disease, injury and death as an on-going part of their job. This has been termed "compassion fatigue" and is considered a form of "burn-out." According to Dr. Angelea Panos in "Understanding and Preventing Compassion Fatigue – a Handout for Professionals,"[4] the term describes, "the set of symptoms experienced by caregivers who become so overwhelmed

2 Quick, J.C., Quick, J., Nelson, D., & Hurrell Jr., J.J. (1997). *Preventive Stress Management in Organizations.* American Psychological Association: Washington, D.C.

3 World Health Organization. (2009). "Stress at the workplace." Presentation. Retrieved from **www.who.int/occupational_health/topics/stressatwp/en.**

4 Panos, A. (2007). "Understanding and Preventing Compassion Fatigue – A Handout for Professionals." American Academy of Experts in Traumatic Stress. Retrieved from **www.aaets.org/article199.htm.**

by the exposure to the feelings and experiences of their clients that they themselves experience feelings of fear, pain, and suffering including intrusive thoughts, nightmares, loss of energy, and hypervigilance." A common reaction to compassion fatigue is a distancing from others.

Models of Workplace Stress

Three well-documented models of workplace stress will be briefly described here.

» Work Demand – Control Model

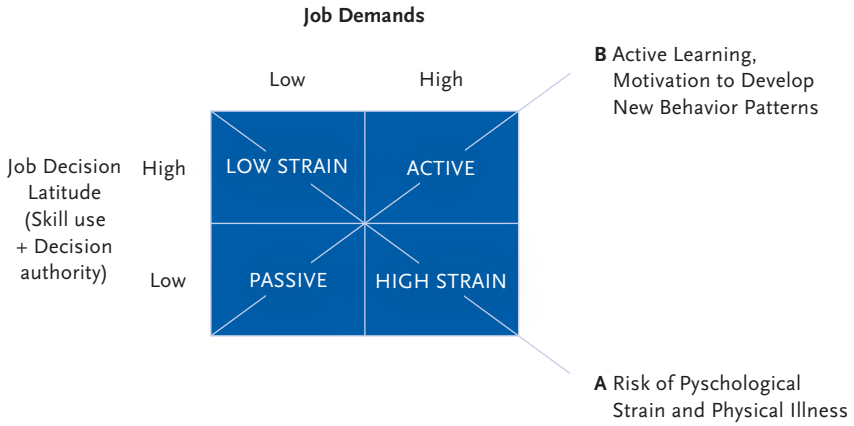
» Effort – Reward Imbalance Model

» General Model of Influences on Wellness in the Workplace

WORK DEMAND – CONTROL MODEL

The relationship of the demands of the job and the control a worker has over the work content and context to a worker's health has been well described in the model developed by Karasek[5] in 1979. In this model, there is a correlation between high job demands and low control over the content and context of work with high risk of psychological or physical strain. This model is reflected in the following diagram.

KARASEK JOB STRAIN MODEL[6]



High job pressure coupled with low job control may be further exacerbated by stressors outside of work and a lack of social support[7]. This can lead to excessive strain and a variety of physical and psychological manifestations.

5 Karasek, Jr., R.A. (1979). "Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign." *Administrative Science Quarterly:* 24, 285-308.

6 Schnall, P.L., Landsbergis, P.A., & Baker, D. (1994). "Job Strain and Cardiovascular Disease." *Annual Review of Public Health:* 15: 381-411. Reprinted with permission by Annual Reviews.

7 Health Canada. (2001). *Best Advice on Stress Management in the Workplace, Part 1.* Retrieved from **www.hc-sc.gc.ca.** This copy is a reproduction of part of an official work published by the Government of Canada and has not been produced in affiliation with or endorsement of the Government of Canada.

Working definitions in Health Canada's document "Best Advice on Stress Management in the Workplace" are as follows:

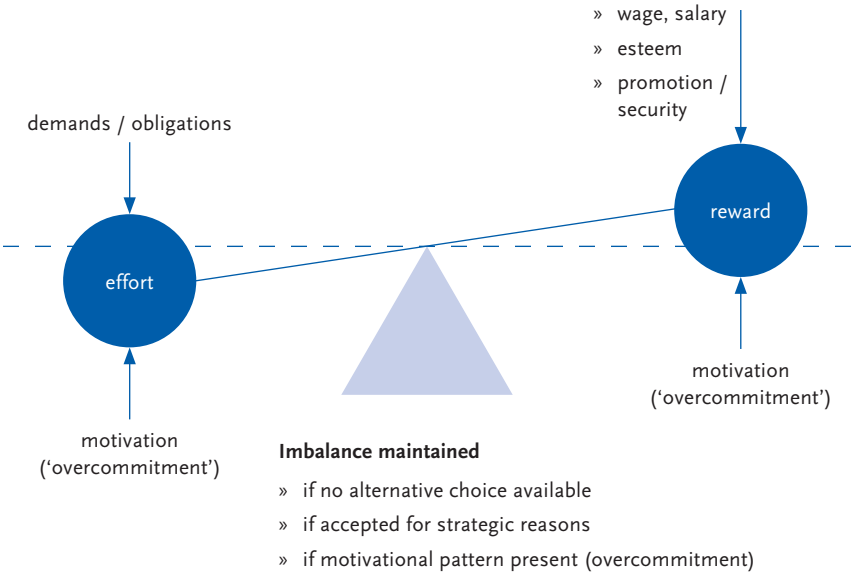
High Job Pressure	Having too much to do over too long a period with constant imposed deadlines
Low Job Control	Having too little influence over the day-to-day organization of your own work
Home Stress	The sum of cumulative demands, challenges and changes experienced on the home front
Social Support	Having at least one person who can be relied on for emotional support during times of distress or unhappiness

EFFORT – REWARD IMBALANCE MODEL

Another model to describe workplace stressors is the Effort – Reward Imbalance (ERI) model. In this model, high levels of physical or mental energy expended to achieve work goals coupled with low recognition of that effort lead to an imbalance that results in stress and adverse health outcomes. Recognition of effort may be financial, esteem, or career opportunities including job security. This is well described by Kruper et al.[8]

"...when people believe that they have expended high effort, but perceive they have reaped few rewards, a condition of emotional distress will be produced. As a result of this failed reciprocity, the risk of stress related mental and physical illness would increase."

ERI has been shown to increase coronary heart disease (CHD). A New Zealand government publication[9] portrays the effort-reward balance in the following diagram:



8 Kruper, H., Singh-Manoux, A., Siegrist, J., & Marmot, M. (2002). "When reciprocity fails: effort-reward imbalance in relation to coronary heart disease and health functioning within the Whitehall II study." *Occup Environ Med*: 59, 777-784. Retrieved from **www.occenvmed.com.**

9 Government of New Zealand. (2008). "Morale, Distress and Healthy Work." Retrieved from **www.osh.govt.nz/publications/booklets/stress-tools2008/models-stress.asp#6.**

In the ERI model, another factor that enters into the "toxic" equation is an individual work-related coping style termed "over-commitment". Over-commitment (OC) is a response characterized by the inability to stop working, exhaustion, as well as increased irritability. When the demands appear to be excessive, the over-committed person[10] "has difficulty in recognizing the negative trade off between high effort and low reward. Hence, they misjudge the balance between the demands placed on them at work and their own resources for coping with these demands."

GENERAL MODEL OF INFLUENCES ON WELLNESS IN THE WORKPLACE

The above mentioned models have been extensively studied and published results link psychological well-being to mechanisms involved in each of the models. However, many publications focus more generally on the identification and control of workplace stressors and the synergistic effects of home stress and workplace stress.

The following is a list[11] of commonly identified stressors. Stressors may be organizational, personal health, and/or environmental factors that impact the workplace. Please note that this list is not exhaustive and also that stressors may affect individuals differently.

10 Preckel, D., Meinel, M., Kudielka, B., Haug, H-J., & Fischer, J.E. (2007). "Effort-reward-imbalance, overcommitment and self-reported health: is it the interaction that matters?" *Journal of Occupational and Organizational Psychology:* 80(1), 91-107.

11 Adapted from, "Mental Health at Work... From Defining to Solving the Problem." (2005). *Booklet 2 - What Causes the Problem: The Sources of Workplace Stress.* Université Laval, IRSST, IAPA, CLIPP. Retrieved from **www.iapa.ca/main/Resources/additional_downloads.aspx.**

Work Organizational Factors

- Potential for physical harm from people or equipment, and potential for psychological injury related to abuse, discrimination, bullying, etc.
- Working alone or in isolated areas.
- Occurrence of critical incidents.
- Quantitative work overload exists when there is too much work to be done in too short a time.
- Qualitative work overload exists when tasks are considered too complex by the worker or when the tasks require the use of new technologies with which the worker is unfamiliar.
- Insufficient, repetitive or monotonous work leading to boredom.
- Intense pace of work fostered by some automated processes and just-in-time activities.
- Lack of job stability leading to insecurity and fear of layoff.
- Lack of opportunity for advancement which can lead to frustration, anxiety and a sense of failure.
- Lack of fairness in terms of pay, benefits, involvement, opportunities, advancement.
- Poor relationships with supervisors reflecting management style and the lack of development of trust and mutual assistance.
- Poor relationships with colleagues which may lead to distrust, hostility, ambiguous loyalties and low levels of communications.
- Poor relationships with clients which may result from clients with high demands and low levels of appreciation.
- Lack of participation in decision-making at both the organizational level and at the level of an individual's work.
- Lack of information at the organizational level leading to a lack of clarity about the overall direction, operations and values of the organization.

- Lack of information at the individual level that will enable a worker to perform his or her work as well as possible.
- Role conflicts brought out by inconsistent expectations from supervisors or co-workers, or when materials are not available to do a job properly, yet the job needs to be done.
- Role ambiguity when workers do not know what is expected of them, especially common when workers are not aware of the goals or objectives that must be accomplished.
- Inability to use skills may lead to frustration and a sense of failure.
- Irregular work schedules that disrupt circadian rhythms.
- Long work hours and overtime producing fatigue, difficulty balancing work and family life, and increasing the potential for workplace accidents.

Individual Health Factors

- Substance abuse.
- Depression, anxiety, sleep disorders, other mental illness.
- Presenteeism.
- Work-life conflict.
- Age-related factors.

Environmental Factors

- Unhealthy physical environments.
  - Noise.
  - Indoor air quality problems.

Impacts Related to Negative Job Stress

The following chart[12] lists examples of physical, psychological, and behavioural impacts of excessive stress. This list provides examples only and is not meant to be comprehensive.

Impacts of Job Stress		
PHYSICAL	**PSYCHOLOGICAL**	**BEHAVIOURAL**
» Migraines » Depression of the immune system » Sleep disorders » Muscular tension » Weight disorders » Gastrointestinal disorders » Increased blood pressure » Allergies » Increased cholesterol level » Dermatological disorders » Cardiovascular disorders	» Depression » Inability to concentrate » Discouragement » Boredom » Anxiety » Memory loss » Dissatisfaction » Frustration » Irritability » Pessimism	» Absenteeism » Interpersonal problems » Disinterest » Substance abuse » Sexual disorders » Eating disorders » Overuse of medication » Intolerance » Diminished creativity » Isolation » Diminished initiative » Impatience » Frequent mood swings » Aggressiveness » Presenteeism

The reactions to stress are individual in nature, and are influenced by a variety of individual factors. What is stressful for one individual may be considered exciting or challenging by another. Individual tolerances to excessive stress may be affected by:

» Social support from family, friends, or colleagues.

» Lifestyle considerations such as outside interests, exercise, nutrition, sleep patterns, smoking, and use of drugs or alcohol.

» Personal health issues.

» Personality traits (competitiveness, ambition, communication style, etc.).

Organizational Impacts of Stress

The costs of individual stress to an organization are considerable. Both direct and indirect costs[13] may be associated with organizational distress.

Direct costs include financial considerations related to worker absences, incidents, compensation claims, disability benefits, and grievances. They also include costs incurred because of reduced quality and quantity of work completed.

Indirect costs relate to harder-to-quantify impacts such as client/patient safety, low worker morale and motivation, disrespect and distrust, and poor labour relations.

12 Adapted from, "Mental Health at Work... From Defining to Solving the Problem." (2005). *Booklet 1 - Scope of the Problem: How Workplace Stress is Shown.* Université Laval, IRSST, IAPA, CLIPP. Retrieved from **www.iapa.ca/main/Resources/additional_downloads.aspx#mental1.**

13 Quick, J.C., Quick, J., Nelson, D., & Hurrell Jr., J.J. (1997). *Preventive Stress Management in Organizations.* American Psychological Association: Washington, D.C.

Hazard Assessment Related to Healthcare Worker Stress

The following is a checklist of workplace hazards or conditions that have been associated with increased worker stress. Although this checklist was developed in a study of work-related stress in nursing, the findings are applicable to all HCWs.

Checklist to Assist in the Assessment of Potential for Creating Excessive Stress

- □ Poor communications at any or all levels.
- □ Inadequate participation or consultation of workers.
- □ Lack of opportunity for advancement.
- □ Job insecurity.
- □ Role ambiguity or role conflict.
- □ Under-utilization of skill or knowledge.
- □ Lack of control over work content or workload.
- □ Lack of clarity in defining work.
- □ Too much or too little work.
- □ Fast paced work or time pressures.
- □ Inflexible schedules.
- □ Shift work.
- □ Working in social isolation.
- □ Interpersonal conflict among co-workers.
- □ Staff abuse (violence, bullying, etc.).
- □ Lack of social support.
- □ Poor relations between management and workers.
- □ Compassion fatigue.
- □ Inadequate training for dealing with patients or families.
- □ Lack of work-life balance.
- □ Lack of resources, including appropriate staffing, equipment, space, etc.
- □ Stress related to technology.

Checklist

Concepts of Prevention of Workplace Stressors

Occupational health and safety practitioners often utilize an approach to controlling hazards that incorporates a hierarchy of controls including engineering, administrative, and personal controls. For psychological hazards created by workplace conditions, a medical model of prevention is often used. Successful strategies to prevent work-related mental health problems involve three levels of prevention: primary prevention focuses on the workplace stressors at the organizational level; secondary prevention focuses on providing workers with the tools to deal appropriately with stressors; and tertiary prevention focuses on reducing the suffering of workers who have psychological problems. These levels have been well described in "Mental Health at Work", Booklet 3, Solving the Problem.[14]

PRIMARY PREVENTION

Directed at stressors in the workplace (analogous to elimination of the hazard or engineering controls as the highest level of control in the hierarchy)

- Demands of the job.
- Work environment and conditions.
- Effort-Reward Imbalance.

SECONDARY PREVENTION

Directed at providing workers with resources at the individual level (analogous to administrative controls – less directed at the source, but still prevention-oriented)

- Education and skills development.
- Management of personal perceptions of stress.
- Lifestyle management.
- Managing the personal work environment.
- Communication strategies.

TERTIARY PREVENTION

Directed at individual assistance for dealing with consequences of excessive stress (the lowest level of prevention focused on prevention of escalation of the impacts that have already occurred)

- EAP, counselling.
- Medical care.
- Return to work program.
- Peer help networks.

In the following sections, specific workplace stressors will be considered. Examples of best practices for eliminating or reducing these stressors using any of the three categories of prevention strategies will be provided.

14 Adapted from, "Mental Health at Work... From Defining to Solving the Problem." (2005). *Booklet 3 - Solving the Problem: Preventing Stress in the Workplace.* Université Laval, IRSST, IAPA, CLIPP. Retrieved from **www.iapa.ca/main/Resources/additional_downloads.aspx#mental3.**

Section 5

Psychological Hazards and Controls

Section 5: Psychological Hazards and Controls

A variety of factors can contribute to the development of excessive stress leading to psychological injury or illness. Three broad categories of factors will be considered in this section – work organizational factors, environmental factors, and personal health factors. The first two categories (work organizational factors and environmental factors) should be addressed with primary prevention strategies, although personal controls may also be useful. Personal health factors are addressed most often with secondary and tertiary prevention strategies, but consideration of primary prevention strategies is key to controlling contributing factors in the workplace. For each of the three categories, examples of commonly-occurring psychological hazards in the healthcare workplace will be considered in greater detail. It should be noted that each of these situations may cause stress for the worker, but some of the personal health factors may be the result of worker stress.

The following potential sources of exposure to psychological hazards will be considered in further detail.

Work Organizational Factors

- Workplace violence and abuse.
- Working alone.
- Critical incident stress.
- Change.
- Technological change.
- Fatigue and hours of work.

Environmental Factors

- Noise.
- Indoor air quality.

Personal Factors

- Substance abuse.
- Depression, anxiety, and other mental illness.
- Age-related factors.
- Work-life conflict.

Sources of Exposure to Psychological Hazards - Work Organizational Factors

Work organizational factors are conditions of work that have been widely implicated in the literature as stressors for workers. The conditions may involve job-specific characteristics as well as interpersonal relationships and work culture.

Workplace Violence and Abuse

Violence and abuse may include:[15]

- Physical assault or aggression.
- Unsolicited and unwelcome conduct, comment, gesture, or contact which causes offence or humiliation.
- Physical or psychological harm to any individual which creates fear or mistrust, or which compromises and devalues the individual.

Legislated Requirements

Definition – Violence

Under occupational health and safety legislation, violence, whether at a work site or work related, means the threatened, attempted or actual conduct of a person that causes or is likely to cause physical injury.

OHS Code, Part 1

Legislated Requirements

Hazard Assessment

Workplace violence is considered a hazard.

OHS Code Part 27, Section 389

As workplace violence is considered a hazard, it must be considered when the employer conducts the written hazard assessment as per Part 2 of the OHS Code.

15 Government of Alberta. (2006). "Preventing Violence and Harassment at the Workplace." Bulletin VAH001. Retrieved from **www.employment.alberta.ca/documents/WHS/WHS-PUB-VAH001.pdf.**

Policy and Procedures

An employer shall:

» develop a policy and procedures respecting potential workplace violence.

OHS Code, Part 27, Section 390

Legislated Requirements

Instruction of Workers

An employer must ensure that workers are instructed in:

» how to recognize workplace violence,

» the policy, procedures and workplace arrangements that effectively minimize or eliminate workplace violence,

» the appropriate response to workplace violence, including how to obtain assistance, and

» procedures for reporting, investigating and documenting incidents of workplace violence.

OHS Code, Part 27, Section 391

Legislated Requirements

Violence and abuse are identified as potential hazards in many occupations in the healthcare industry. HCWs work closely with co-workers as well as clients and their families in circumstances which are often stressful. Pain, medication, drug and alcohol use, impatience, and mental health problems may instigate episodes of abuse. Close contact while administering care often leaves a HCW vulnerable to abusive behaviour.

Focus

To manage workplace violence, each employer must determine the nature and extent of the potential hazards.

Consider such factors as:

» the workers they hire,

» potential sources of violence,

» work processes,

» physical environment, and

» level of organizational commitment towards the prevention of workplace violence.

Considering each of these factors allows an employer to identify:

a. aspects of the workplace that may enhance opportunities for violence,

b. individuals at highest risk, and

c. need for controls.

OHS Code Explanation Guide 2009, Part 27-1,2

Although Part 27 of the OHS Code targets physical violence, this Best Practice document will examine the entire continuum of violence.

In the healthcare environment, early signs and stages of violent or harassing behaviour may be overlooked and go unreported. A continuum of violent behaviour includes abuse or bullying, threats of violence, violent incidents without injury, violent incidents causing injury, to violent incidents with catastrophic outcomes. Incidents of violence may result in physical and/or psychological injury. Both should be addressed in any violence prevention and management program.

According to the Staff Abuse Prevention and Management Workbook produced by the Staff Abuse Prevention and Management Initiative,[16] abuse by clients tends to happen:

» During times of close contact; for example, when dressing, moving or bathing a client.

» Following long waits for care.

16 Staff Abuse Prevention & Management Initiative Member Organizations (Alberta's Health Authorities, AUPE, CUPE, HSAA, PHAA, UNA and Federation of Regulated Health Professions of Alberta). (2002). "Staff Abuse – Prevention and Management Workbook."

» During care that the client views as uncomfortable or painful.

» When clients are cognitively impaired (when they have dementia - including dementia of the Alzheimer's type - or a head injury, for example).

Scope of the Problem:

The effects of violence can vary and include minor to serious physical injuries, temporary or permanent disabilities, psychological stress and trauma, and death. In addition to these effects, violence in a healthcare facility may also lead to decreased staff morale and lost productivity. Clients responsible for assaulting HCWs may pose a significant threat to other clients in a healthcare facility.

When a HCW sustains an injury from an assault or violent act in the healthcare workplace, it should be reported to the Alberta Workers' Compensation Board (WCB). The WCB statistics[17] for the healthcare industry in Alberta identify that disabling injuries resulted from assaults and violent acts and indicate that this type of injury is higher in the healthcare industry than in other industries in the province. It is important to note that this may represent only a fraction of assaults, as many injuries in which there is no time loss are likely to go unreported. Assaults may not be reported for a variety of reasons, often based on thinking that these incidents are "part of the job" or that the perpetrator is not entirely responsible for his or her behaviour. Another deterrent to reporting is an organization's dismissal of reports or discouragement of reporting incidents or near misses.

In an often-quoted study[18,19] that utilized an Alberta nursing survey in 2000, results indicated that 16.9% of nurses who responded to the survey had experienced some form of physical assault in their last five shifts worked. The study indicated that many incidents of violence are unreported. Of the nurses who indicated they experienced one or more forms of violence, 67% did not report the incident. Only 40% reported threats of assault, 29% reported emotional abuse and 24% reported verbal sexual harassment.

17 Government of Alberta. (2010). "Occupational Injuries and Diseases in Alberta: Health Services Industries 2005-2009." Retrieved from **www.employment.alberta.ca/documents/WHS/WHS-PUB-oid-health.pdf.**

18 Duncan, S., Estabrooks, C., & Reimer, M. (2000). "Violence against nurses." *Alberta RN:* 56(2). Used with permission.

19 Hesketh, K.L., Duncan, S.M., Estabrooks, C.A., Reimer, M.A., Giovannetti, P., Hyndman, K., & Acorn, S. (2003). "Workplace violence in Alberta and British Columbia hospitals." *Health Policy:* 63, 311-321.

Definition

Definitions of Violence Categories Used in the Alberta Nurse Survey[19]

- Physical assault (e.g. being spit on, bitten, hit, pushed).
- Threat of assault (verbal or written threats intending harm).
- Emotional abuse such as hurtful attitudes or remarks (insults, gestures, humiliation before the work team, coercion).
- Verbal sexual harassment (repeated, unwanted intimate questions or remarks of a sexual nature).
- Sexual assault (any forced physical sexual contact including forcible touching and fondling, any forced sexual acts including forcible intercourse).

The study also indicated that while clients were frequently the source of most types of violence, only 35% of incidents of emotional abuse were attributed to clients. Other sources including co-workers, physicians, families, visitors and others also account for incidents of emotional abuse.

In a more recent study led by Katie Pedley and published in *Health Policy* (2005), more than 9,000 nurses in British Columbia and Alberta were surveyed. The survey revealed, "that one in five nurses experienced more than one type of violence during a five shift period. While patients represented the largest group of abusers, hospital co-workers were responsible for 56.7% of all emotional abuse and 53.6% of verbal sexual harassment."[20]

Classification of Types of Workplace Violence:

Workplace violence events fall into three major categories:[21]

Type I	**Criminal intent**	The perpetrator has no legitimate relationship to the workplace and usually enters to commit a robbery or other criminal act.
Type II	**Customer-client**	The agent is a current or former recipient or family member/friend of the recipient of a service.
Type III	**Worker-on-worker, or personal contact with someone outside work-on-worker**	The assailant has some employment-related involvement with the workplace, e.g. co-worker; or someone who has a dispute with a specific worker in the workplace (may be personal contact with someone outside work).

19 Hesketh, K.L., Duncan, S.M., Estabrooks, C.A., Reimer, M.A., Giovannetti, P., Hyndman, K., & Acorn, S. (2003). "Workplace violence in Alberta and British Columbia hospitals." *Health Policy*: 63, 311-321.

20 Cairney, R. (2010). "Fighting Workplace Violence." OHS Magazine. Retrieved from **www.employment.alberta.ca/documents/WHS/WHS-PUB-ohs-mag-0510.pdf.**

21 Adapted from Cal/OSHA. (1995). "Guidelines for Workplace Security." Retrieved from **www.dir.ca.gov/dosh/dosh_publications/worksecurity.html.**

In the healthcare environment, Type II events have resulted in the most significant physical injuries sustained by HCWs. In particular, client assaults are a risk to medical care providers in acute care hospitals, long term care facilities, outpatient and community clinics, home health agencies, and public health inspectors and workers. Also at risk are mental health and psychiatric care providers in inpatient facilities, outpatient clinics, residential sites and home health agencies, and alcohol and drug treatment providers.

While Type II events are the most common in healthcare, Type I assaults may occur in locations easily accessible to the public, such as emergency rooms. In addition, Type I events may occur in community settings. Type III assaults also occur in healthcare, most commonly when disputes arise between workers, or when personal/domestic disputes outside the workplace lead to a perpetrator entering the workplace to harm a worker.

Risk Factors for Types I and II Events of Violence

Many factors have been identified as contributing to the increased risk of violence in healthcare settings. Some of these include:[22]

- The availability of drugs or money at hospitals, clinics, and pharmacies, making them targets for robbery attempts.
- Unrestricted access and movement of the public in the facilities.
- Long waits for service leading to frustration.
- Increased presence of gang members, drug or alcohol abusers, trauma patients, or distraught family members.
- Low staff levels during some activities such as mealtimes, visiting times, evenings, nights, and weekends.
- Isolated work with clients during examinations or treatment.
- Increased number of clients with acute and chronic mental illness released from hospital without follow-up.
- Increased availability and possession of weapons.
- Working alone, especially in remote locations.
- Overcrowded, uncomfortable waiting areas.
- Inadequate security.

22 Occupational Safety and Health Administration. (2004). "Guidelines for Preventing Workplace Violence for Health Care & Social Service Workers." Publication OSHA 3148-01R 2004.

- Poorly lit corridors, parking lots, rooms, etc.
- Use of hospitals for criminal holds and care of acutely disturbed, violent individuals.
- Location of facility in high crime area.
- Working with clients or others known or suspected to have a history of violence, confusion, dementia, etc.
- Lack of staff training in recognizing and managing escalating hostile and assaultive behaviour.
- Workers with a history of assault or who have exhibited belligerent, intimidating, bullying or threatening behaviour to others.

Type III Events

Type III events include violence between co-workers, as well as violence where the perpetrator is a personal contact outside the workplace. Stalking or domestic violence may extend to the workplace, where violent behaviour may occur. Co-worker disputes, including worker-supervisor disputes, may trigger Type III violence. There have been numerous cases of violent incidents in the workplace where the perpetrator is a former worker.

One form of Type III events is workplace bullying. Results from an Australian survey[23] indicated that most bullying was carried out by managers or supervisors. The most common examples of bullying behaviour were shouting, ordering, belittling, abusive language, spreading rumours, nasty or harmful teasing or jokes, and an oppressive workplace where there was fear of speaking up about issues of concern.

Definition

What is Bullying?[24]

"Workplace bullying refers to a situation where someone is subjected to social isolation or exclusion, his or her work and efforts are devalued, he or she is threatened, derogatory comments are made about him or her in his or her absence, or other negative behaviour that is aimed to torment, wear down, or frustrate the victim occurs."

23 Somerville, P. (2001). "Tackling Tormentors." *National Safety.*

24 Kivimäki, M., Virtanen, M., Vartia, M., Elovinio, M., Vahtera, J., & Keltikangas-Järvinen, L. (2003). "Workplace bullying and the risk of cardiovascular disease and depression." *Occup Environ Med:* 60, 779-783. With permission from the BMJ Publishing Group Ltd.

Did you know?

The United States Joint Commission, which accredits healthcare organizations in the United States, issued an alert about intimidating and disruptive behaviours at work:[25]

Intimidating and disruptive behaviours can foster medical errors, contribute to poor patient satisfaction and to preventable adverse outcomes, increase the cost of care, and cause qualified clinicians, administrators and managers to seek new positions in more professional environments. Safety and quality of patient care is dependent on teamwork, communication, and a collaborative work environment. To assure quality and to promote a culture of safety, health care organizations must address the problem of behaviours that threaten the performance of the health care team.

On July 9, 2008, the United States Joint Commission issued a sentinel event alert titled, "Behaviors that undermine a culture of safety." According to the alert, "there is a history of tolerance and indifference to intimidating and disruptive behaviours in health care" and a leadership standard (effective January 1, 2009) was included to address the issue in all accreditation programs.

Focus

To address the issue of workplace bullying, several actions should be undertaken:

- Make all workers aware of the organization's code of conduct and develop policies whereby workplace bullying will not be tolerated.
- Provide educational sessions for all workers to help identify and encourage the reporting of all incidents of bullying.
- Investigate all reports of bullying thoroughly; develop and use interventional strategies.
- Develop inter-disciplinary communications to address and overcome ongoing conflicts.
- Document all attempts to address disruptive and bullying behaviour.

25 Unites States Joint Commission. (2008). "Behaviors that undermine a culture of safety." Retrieved from **www.jointcommission.org/assets/1/18/SEA_40.PDF.**

How to Assess Abuse in the Workplace

The potential for violence or other abusive behaviours may be often overlooked in healthcare, where workers sometimes consider violent events and abuse as behaviour that "comes with the territory." Reporting of workplace incidents of abuse is discouraged if employees believe that previously reported incidents were unaddressed. The opportunity to identify the potential for violence and abuse leads to developing and implementing control measures to reduce the risk. The potential for violence and abuse should be systematically assessed for all workers, just as other types of hazards are assessed.

Focus

How to Assess and Control the Potential for Abuse in the Workplace

Step 1: List tasks that the worker performs and environmental factors where the worker is located.

Step 2: Identify the potential sources of abuse in the workplace.

Step 3: Assess the hazard, evaluate potential exposure and determine the risk for exposure.

Step 4: Identify appropriate controls following the hierarchy of controls.

Step 5: Communicate the information to workers and the joint health and safety committee and provide training.

Step 6: Develop procedures to minimize worker exposure and provide training to workers on these procedures.

Step 7: Evaluate the effectiveness of controls and improve them as required.

For further information on Hazard Assessment and Control:

- See Volume 1 – *Overview of Best Practices in Occupational Health and Safety in the Healthcare Industry*. **www.employment.alberta.ca/documents/WHS/WHS-PUB_bp009.pdf.**
- Access the Government of Alberta's Hazard Assessment and Control eLearning Program at: **www.employment.alberta.ca/whs/learning/hazard/Hazard.htm.**
- Additional resources on preventing workplace violence and bullying at **www.workplaceviolencenews.com.**

Resources

Ensure that workers are involved in the hazard identification, assessment, and control process. As a starting point, organizations should provide workers with definitions and examples of violence and abuse. The use of incident data may also assist in identifying high risk areas of violence and abuse.

A systematic approach to identifying the risk factors that are present should include consideration of:

- Reported incidents and near misses.
- Worker perception of risk.
- Client information.
- Job/task information.
- Status of interpersonal relationships.
- Facility/location information.

Reported Incidents and Near Misses

To identify the risk for workplace abuse, it is useful to obtain an understanding of the organization's experience with incidents of staff abuse. A review of reported cases of staff abuse may provide insight into areas of risk.

Reported incidents and near misses provide valuable information about situations that have already occurred to workers; therefore, these represent a certain risk that should be controlled. All workers should be required and encouraged to report all incidents and close calls that involve violence and abuse. In some cases, HCWs are reluctant to report incidents or near misses, believing that "nothing will be done about it." At other times, there is reluctance to report because the workers blame themselves for the behaviour or believe the perpetrator is "not really responsible for his or her actions." Workers should be made aware that reporting incidents or near misses provides an opportunity to identify the risks and implement controls. This is facilitated when incident investigations focus on identifying root causes that do not assign blame to the worker.

Worker Perception of Risk

Areas of risk should be identified. This can be accomplished through discussions with focus groups, through survey questions, or by using a task force or committee to review available data.

A staff survey is an excellent mechanism to obtain an appreciation of worker perception of risk as well as an idea of the scope and magnitude of the issue. A survey will also increase worker awareness of the issue. Worker surveys often indicate that a high percentage of incidents are not reported (for a variety of reasons). If worker surveys are being conducted, it is important to recognize that conducting the survey itself leads to worker expectations that greater attention will be paid to controlling abuse of workers. Therefore, any survey should be a component of a comprehensive program to prevent and manage abuse of workers.

Worker perception of risk varies considerably. If an organization provides useful definitions of violence and abuse, workers are likely to be more consistent in their reporting. Staff have a duty to protect each other and should have the opportunity to share awareness of potential hazards based on their own experience. It should be stressed that any action a worker considers to be abuse or violence should be taken seriously, bearing in mind that there are individual variations in perception.

Client Information

Client information assists workers in being aware of the potential for acts of abuse or violence. Clients or their visitors with a history of abusive behaviour warrant extra efforts to identify and control this type of behaviour. Clients with a variety of conditions (on medication, with mental illness or dementia, etc.) may be more likely to be violent or abusive towards staff, other patients, clients, or residents.[26,27]

Job/Task Information

Job/task information also provides opportunities for risk assessment. Jobs that place workers in close physical contact with potentially aggressive clients or their relatives or friends should be carefully reviewed to determine possible controls. Particular positions in healthcare are often singled out as being at higher risk. These include security officers, emergency service workers, mental health workers, public health workers, home care workers, and care providers of clients who may be confused, angry, or have criminal intents.

Status of Interpersonal Relationships

Good interpersonal relationships are the foundation of healthy workplaces. Management style, labour relations, and personal or organizational stress can lead to behaviours such as abuse, bullying, or violence between workers.

Facility/Location Information

The location of the work site may also be a factor in identifying risk. Facilities located in high crime areas may provide higher risk for workers, particularly as they enter and leave the facilities. Home care, public health, and community care workers may have an increased level of risk due to the location of their clients. In some cases, working in isolated parts of a facility also raises the risk level.

26 Public Health Agency of Canada. (1996). "Mental Illness and Violence: Proof or Stereotype." Retrieved from **www.phac-aspc.gc.ca/mh-sm/pubs/mental_illness/index-eng.php.**

27 Friedman, R.A. (2006). "Violence and Mental Illness — How Strong is the Link?" *N Engl J Med:* 355, 2064-2066. Retrieved from **www.nejm.org/doi/full/10.1056/NEJMp068229.**

Controlling the risk of abuse in the workplace

Engineering Controls[28]

From a prevention perspective, engineering controls are the first choice for preventing abuse in the workplace. Engineering controls are primary prevention tools. Specific controls should be developed based on the workplace risk assessment. Examples of engineering controls include:

- Isolation areas for agitated clients.
- Windows on doors of interview rooms.
- Furniture arrangement to prevent worker entrapment.
- Enclosures of nursing stations.
- Lockable and secure bathrooms for workers separate from clients.
- Controlled access.
- Grating or bars on street level windows.
- Bright lighting in parking lots.
- Curved mirrors in hallways.
- Metal detectors in psychiatric facilities and in emergency rooms.
- Alarm systems and panic buttons.
- Video surveillance.
- Bullet resistant glass in emergency room triage areas.
- Communication devices for immediate contact for home care and community workers.
- Access to a secure safe room.
- Removal of furniture or objects that can be used as weapons.
- Key card locks.
- Hand-held alarm devices for home care and community workers.

Administrative and Work Practice Controls

A comprehensive abuse prevention and management program sets the foundation for administrative and work practice controls that act as secondary prevention tools. Examples of specific administrative and work practice controls include:

- Clear management policies indicating that abuse will not be tolerated.
- Policies related to making rounds for room checks, emergency evacuations, use of restraints, and monitoring of high risk clients.

28 Cal/OSHA. (1998). "Guidelines for Security and Safety of Health Care and Community Service Workers." Retrieved from **www.dir.ca.gov/dosh/dosh_publications/hcworker.html.**

- Client treatment plans that include a gradual progression of measures (least restrictive yet appropriate and effective for preventing worker injury) available to workers to prevent violent behaviour from escalating.
- Worker education on violence awareness, avoidance, prevention and de-escalation procedures.
- Well-trained security guards.
- Escort to parking lots.
- Escort of visitors, contractors, maintenance workers in locked facilities.
- Appropriate staffing levels based on client acuity and activity.
- Communication protocols to advise workers of client status.
- Liaison and response protocols with local police.
- Maintaining keys in a way to avoid their misuse.
- Working alone policies and procedures.
- Treatment of aggressive or agitated clients in non-isolated areas.
- Required reporting and follow up of all incidents and near misses.
- Protocols to obtain, record, communicate and update client information regarding potential for violent behaviour.
- Procedures to lock all unnecessary doors after dark.
- Required use of nametags by all workers (preferably with a photograph and with only the first name on the front and the last name on the back).
- Visitor controls, including visiting hours, sign-in procedures, "restricted visitor" lists, etc.
- Policies supporting worker refusal to enter any location where they do not feel safe.
- Risk assessment procedures including client intake procedures.
- Procedures for safely handling of money and drugs.
- Review of work practices which might provoke violence.
- Domestic violence policies.

Post-Incident Support Includes:

- Emergency response procedures for workers encountering violence.
- Post-incident medical and psychological assistance for workers involved in a violent incident.

An approach for developing a violence and abuse prevention program

The most effective means of controlling workplace violence and abuse is to have a multi-faceted prevention program in place.

Focus

Basic Components of an Effective Violence and Abuse Prevention Program

- Management commitment and worker involvement, including policies related to respect in the workplace.
- Work site analysis and hazard assessment.
- Implementation of control measures.
- Reporting and documentation of incidents.
- On-going program evaluation.

An effective violence and abuse prevention program for HCWs should be comprehensive. Many facets of the work environment and a wide range of clientele can be factors in incidents of abuse. The nature of work may give rise to close contact between workers and clients during particularly stressful times. The opportunity for many different HCWs to have contact with the same client may pose risks for the many HCWs who provide services to a violent or abusive client. Most healthcare workplaces are open to the public, which increases security concerns. Increased stress on the healthcare system that may lead to longer waiting times or short staffing may aggravate the situation.

To cover all aspects of the healthcare work environment, it is often useful to establish a committee or task force to assist in the development of a violence and abuse prevention program. Workers are familiar with the tasks they perform as well as their clientele and the facilities they work in. Workers should be well-represented on the committee or task force.

Other participants to consider as members:

- Occupational health and safety personnel who act as resources for the hazard identification and assessment process for all workplace hazards.
- Security personnel who are familiar with security issues, often respond to incidents of abuse, and are knowledgeable about facility prevention efforts.

- Human resources personnel who are knowledgeable about human rights issues as well as disciplinary policies and reporting practices.
- Medical records personnel who are responsible for client records and can advise on issues related to communication about any history of violence or abusive behaviour.
- Legal counsel, risk management and policy development personnel who can advise on legal rights and responsibilities of all parties and ensure that any policies that are developed comply with standard processes and format.
- Representatives from work areas or disciplines who can bring actual knowledge of workplace conditions and other factors to the table (e.g. mental health workers, home care providers, long term care providers, emergency room personnel, emergency responders, etc.).
- Public affairs or communications personnel who will help to develop both internal and external communication strategies.
- Representatives of major worker and management groups including at least one representative from each union as well as a physician representative.

Once the committee/task force is established, a terms of reference should be prepared. In some cases, it may be useful to form subcommittees to work on specific aspects of the program that require more detailed consideration and more extensive input. The visible support for the work of such a task force is one way to demonstrate management commitment to identifying and controlling the hazards related to worker abuse.

The violence and abuse prevention and management program

In this section, best practice elements of a violence and abuse prevention program will be discussed in some detail.

Management Commitment and Worker Involvement

Management commitment to provide a safe and healthy work environment includes a strong commitment to eliminate violence and abuse at the workplace. To be credible, management should take the threat of violence and abuse seriously and visibly lead and support prevention efforts. Workers should be involved in developing a violence and abuse prevention program. Their insights based on knowledge of their work environment and workplace experience contribute significantly to identifying risks and determining effective controls.

Information

Management Commitment Should Include:[29]

- Demonstrating organizational concern for worker emotional and physical safety and health.
- Exhibiting equal commitment to the safety and health of workers and patients/clients.
- Assigning responsibility for the various aspects of the workplace violence prevention program to ensure that all managers, supervisors and workers understand their obligations.
- Allocating appropriate authority and resources to all responsible parties.
- Ensuring appropriate security measures are in place.
- Maintaining a system of accountability for managers, supervisors and workers.
- Establishing a comprehensive program of medical and psychological counselling and debriefing for workers experiencing or witnessing assaults and other violent incidents.
- Supporting and implementing appropriate recommendations from safety and health committees.

One of the first steps for management is to develop policies to support the violence and abuse prevention program.

A workplace violence and abuse prevention policy should include:[30]

- Providing visible, ongoing support for a workplace environment free of violence and abuse, including a commitment to assess hazards and risks related to violence and abuse and implement control measures.
- Affirming that any act of abuse is unacceptable.

29 Occupational Safety & Health Administration. (2004). "Guidelines for Preventing Workplace Violence for Health Care & Social Service Workers." Publication OSHA 3148-01R 2004.

30 Government of Alberta. (2006). "Preventing Violence and Harassment at the Workplace." Bulletin VAH001. Retrieved from **www.employment.alberta.ca/documents/WHS/WHS-PUB-VAH001.pdf.**

- Encouraging all workers to report any incident of abuse and ensuring that there are no reprisals for workers who report or experience abuse.
- Committing to investigate and follow-up reported incidents and near misses.

Program Elements for Preventing or Controlling Abuse Towards Workers in the Workplace

Because the scope of abuse of workers is broad, with a wide range of potential internal and external perpetrators and a myriad of individual considerations, prevention of abuse of workers is multi-faceted. This list of prevention procedures and control techniques is not all-inclusive, but rather a sample of the complexities that should be considered:

- Development, communication and enforcement of policies that indicate no tolerance for any form of violence, abuse, or bullying. Awareness sessions for all workers on abuse and violence in the workplace, reporting procedures and controls.
- Violence alerts to prevent abuse by repeat offenders. This includes any alerts placed on client charts as well as any mechanism to communicate information about client behaviour to other units or facilities where the client may be transferred. The issue of confidentiality as well as concerns about potentially discriminating treatment should be considered in introducing any alert system. In addition, issues of timeliness of alerts as well as mechanisms to review and remove alerts should be taken into account.
- Staff identification to reduce unauthorized access to areas. This includes a requirement for all workers to wear identification badges. It is suggested that information that is not necessary is not be shown on the front of the badge to reduce risk to workers.
- Visitor guidelines and signage to emphasize that abuse will not be tolerated. This may include the preparation and dissemination of client information guidelines, in which client behaviour is discussed, the commitment to no tolerance for abuse against workers, and the encouragement of mutual respect are covered.
- Appropriate information gathering pre-visit for home care clients. Pre-visit screening should be conducted before home visits are permitted. A checklist can facilitate the collection of appropriate information that may lead to risk identification, assessment and control.

- Use of physical and chemical restraints should follow specified guidelines. While restraints are often considered last resorts, it is important that decisions as to their use should take into account the risks posed to HCWs.
- Management of victims or perpetrators who are clients. Post-incident management of victims should take into account the privacy of the victim. Specific guidelines should be developed and all responders made aware of them. Procedures should also be developed and communicated regarding the handling of perpetrators or alleged perpetrators of crimes. Examples may include verbal warning, behavioural contracts, working with families, withdrawal of services, etc. Policies should be in place that support workers' refusals to work in situations where they believe they are in danger.
- Weapons search policies and procedures for follow-up upon discovery of weapons. Guidelines should be written and provided to workers regarding when and how to search for weapons and what to do if they are found.
- Working alone guidelines and communications protocols. Working alone guidelines are required by Alberta Occupational Health and Safety legislation (OHS Code, Part 28), and must include a written hazard assessment as well as communication protocols for workers who must work alone.
- Alarm systems and emergency communication devices (e.g. panic buttons, etc.). Identification of workers or locations that should be provided with alarm systems and panic buttons should occur. Once any alarm systems are installed or provided, all workers should be trained on how to use them and how to respond to alarms.
- Identification and correction of high risk facility issues (e.g. isolated areas, parking lots, low lighting, no escape routes, etc.). There are many risk factors posed by the design of the facility. Each department should identify risk factors and work to reduce the risk in the areas. A checklist would be useful for departments to help identify facility issues contributing to worker risk.
- Training programs that include non-violent crisis intervention and assault management techniques.

In addition, the following post-incident procedures should be developed as part of the comprehensive program:

- Scene control. Written procedures should be in place and communicated extensively so that all workers can respond appropriately to a dangerous situation.

- Obtaining medical aid. Medical aid is usually the first consideration when a worker is injured. If medical aid is required, workers should be able to access it easily through a well-publicized process. Confidentiality should be considered in treating any worker.
- Incident reporting is critical to learning about risks, investigating circumstances and developing effective control measures to prevent similar incidents. Reporting protocols should be developed and communicated to all workers. Education of workers about the need and value of reporting all incidents including near misses is necessary.
- Incident investigation and follow-up. Investigation should be required for all reported incidents of abuse. The investigation should focus on identification of root causes and contributing factors and should include worker participation. The goal of incident investigations is to identify actions that can be taken to prevent another occurrence of the incident. Incident investigation procedures should include a consideration of confidentiality and privacy issues.
- Filing WCB claims. Any worker injury requiring medical aid or for which a worker is absent from work after the first day of the injury or must have work modified in order to be able to work must be reported to the WCB within 72 hours.
- Post incident defusing and debriefing. Workers who are victims or witnesses to acts of violence or abuse, or who deal with clients who are victims are often seriously affected by the incidents. Providing counselling support, both on an individual basis through an EAP or on a group basis with a critical incident stress debriefing process is considered a best practice to reduce the short and long term impacts of incidents.
- Disciplinary processes should be well defined and documented and support the policy that violence and abuse will not be tolerated by the organization. In particular, workers who are the perpetrators of abuse should be dealt with using the disciplinary process.
- Legal action including organizational support. Processes for when and how to initiate legal action (including the laying of criminal charges where warranted) against a perpetrator should be well communicated to all workers. Workers should be aware of courses of action, choices available and how to access support.
- Post-incident return-to-work considerations when an abuse victim returns to work should follow guidelines that include procedures, placement options and modified work arrangements.

Working Alone

In some circumstances, working alone poses psychological as well as physical hazards. Psychological hazards of working alone relate to the potential threat of violence or abuse that may be increased when there is no one else present to intervene or deter acts of violence. Workers who are isolated or unable to have contact with others may also experience medical crises and be unable to obtain necessary medical treatment. In many jurisdictions, working alone legislation has been passed to address worker safety. In Alberta, the requirements for working alone are in Part 28 of the OHS Code.

Legislated Requirements

Part 28 of the OHS Code (Working Alone) applies if:

» A worker is working alone at a work site, and

» Assistance is not readily available if there is an emergency or the worker is injured or ill.

OHS Code, Part 28, Section 393 (1)

Working alone is considered a hazard that requires hazard assessment and control under Part 2.

OHS Code, Part 28, Section 393 (2)

In healthcare, workers who may need to work alone include those who travel to meet clients in the community (such as home care workers and public health officers), workers in transit who are traveling alone, and those working in isolated locations away from public view.

In determining if working alone requirements apply, it is important to consider three factors that impact "readily available assistance."[31] These are

» Awareness by other persons that a worker needs assistance.

» Willingness of the others to provide assistance.

» Timeliness of assistance provided.

In all cases, a risk assessment should be conducted for each task/job where a worker may work alone. If the nature of the work poses hazards with a high probability of injury, immediate assistance may be required.

31 Government of Alberta. "Alberta Occupational Health and Safety Code (2009) Explanation Guide." Retrieved from **www.employment.alberta.ca/SFW/3969.html**

What are the considerations in a risk assessment?

Not all working alone situations are alike. The employer should consider physical factors (lighting, communication methods, accessibility of the area, and history of security problems) of the location, the hazards of the task being performed by a lone worker, a worker's health status, and the effectiveness of any existing controls in assessing the level of risk. Controls useful in some circumstances may be impractical in others. For example, a cellular telephone may seem like a control for almost all lone workers. However, in many circumstances taking out the phone and making a call may not be practical or safe. Involving workers in the risk assessment and determination of appropriate controls will lead to the selection of practical and effective controls.

Legislated Requirements

Controls Required

Employers must, for any worker working alone, provide an effective communication system consisting of

» radio communication,

» landline or cellular telephone communication, or

» some other effective means of electronic communication that includes regular contact by the employer or designate at intervals appropriate to the nature of the hazard associated with the worker's work.

If effective electronic communication is not practicable at the work site, the employer must ensure that

» the employer or designate visits the worker, or

» the worker contacts the employer or designate at intervals appropriate to the nature of the hazard associated with the worker's work.

OHS Code, Part 28

Controls to Employ for Workers Working Alone

Elimination of the risk is the most effective control for working alone hazards. Where possible, the employer should schedule and organize work so that workers are not required to work alone. An excellent source of information about controls for working alone with clients is the Canadian Centre for Occupational Health and Safety (CCOHS) document "Working Alone – Working With Patients."[32]

Engineering controls for lone workers can include:

- Communication devices (cellular telephones, walkie-talkies, etc.).
- Satellite tracking systems.
- Restricted access.
- Locks.
- Workplace design considerations.
- Bullet-proof shields.
- Panic alarms.
- Bright lighting.
- Mirrors to facilitate seeing around corners or hallways.
- Surveillance cameras, etc.

Administrative controls include worker training, working alone policies and procedures, client intake and screening processes, repeat offender chart alerts, working in teams, communication protocols between sites, departments and facilities, requirement for workers to wear identification badges, check-in procedures, empowerment of home care and other workers to defer services or meet clients in alternative safe locations, provision of adequate security, escort to parking lots, well-functioning vehicles, etc.

Personal protective equipment may include personal safety alarms, etc.

Working Alone Checklists

To identify who may be exposed to hazards of working alone and determine appropriate controls to prevent injury, a thorough assessment should be conducted. The following checklist adapted from, "Working Alone Safely: A Guide for Employers and Employees"[33] may be useful in developing best practices for dealing with hazards of working alone. Additional checklists for workers with other risk factors are also included in the Guide.

32 Canadian Centre for Occupational Health and Safety. (2002). "OSH Answers: Working Alone – Working With Patients." Retrieved from **www.ccohs.ca/oshanswers/hsprograms/workingalone_patients.html.**

33 Government of Alberta. (2000). "Working Alone Safely: A Guide for Employers and Employees." Retrieved from **www.employment.alberta.ca/documents/WHS/WHS-PUB_workingalone.pdf.**

Checklist for workers who meet clients off-site (home care workers, public health officers, etc.)			
	Yes	No	N/A
Worker training			
» Are workers trained and competent to work alone?			
» Do workers receive training in the recognition of potentially violent situations?			
» Are workers trained in non-violent responses to threatening situations?			
» Have workers been instructed on safe work procedures for meeting clients at their premises?			
Safe work procedures			
» Are the safe work procedures based on hazard assessments?			
» Do the safe work procedures consider client behaviour?			
» Do the safe work procedures consider location and physical factors of the premises?			
» Do the safe work procedures consider possible presence of dangerous weapons?			
» Are workers required to have a safe visit plan for high risk situations?			
» Does the plan include the mechanism to enable regular contact with the office?			
» Does the plan include a process to inform the office when arriving and leaving client premises?			
» Does the plan permit use of a "buddy" or second person to accompany the worker in high risk situations?			
» Does the plan allow for meeting the client in an alternate, safer location?			
» Does the plan discuss the use of security services?			
» Does the plan enable deferring visits until proper safety measures can be met?			
Communication			
» Is there an effective means of communication to enable workers to contact persons capable of providing immediate assistance?			
» Does the communication system ensure regular contact?			
» Is there a "check-in" process in place?			
» Is regular contact initiated by the employer or designate at intervals appropriate to the nature of the hazard?			

Critical Incident Stress

A critical incident is "any sudden unexpected event that has an emotional impact sufficient to overwhelm the usual effective coping skills of an individual or a group and that causes significant psychological distress in usually healthy persons."[34]

In the course of their work, many HCWs may be at risk for experiencing critical incident stress (CIS).

Assessing the Hazard for CIS

When conducting hazard assessments, the potential for workers to be involved in or responding to a critical incident should be considered. The following list identifies some of the common risk factors for HCWs. HCWs may experience critical stress in a variety of situations including those affecting patients, co-workers or that pose a threat to themselves. HCWs must often deal with extremely emotionally charged situations rising from traumatic events and often place their personal well-being second to providing professional services.

Worker involvement in the hazard assessment process is critical, as workers can often provide experiential information in determining where risks are present. Critical incidents that occur to workers as a result of abuse may be prevented with an effective violence and abuse prevention and management program in the organization. Where the critical incidents occur to clients, prevention is not usually possible and response mechanisms should be put in place.

Signs and symptoms of CIS may include[34,35] cognitive, physical, emotional, and behavioural responses.

Cognitive responses may include:

- Confusion.
- Poor concentration.
- Memory loss.
- Problems recalling the event.

34 Caine, R.M., & Ter-Bagdasarian, L. (2003). "Early Identification and Management of Critical Incident Stress." *Crit Care Nurse:* 23, 59-65.

35 Flannery, Jr., R.B. (1999). "Psychological Trauma and Posttraumatic Stress Disorder: A Review." *International Journal of Emergency Mental Health:* 1(2), 135-140.

Physical impacts may include:

- Fatigue.
- Insomnia.
- Gastrointestinal problems.
- Muscle tension.
- Exaggerated startle response.

Emotional effects may include:

- Anxiety.
- Guilt.
- Depression.
- Anger.
- Denial.
- Persistent re-experiencing of the event in thoughts, nightmares, etc.
- Distress in the presence of reminders.

Behavioural manifestations may include:

- Social withdrawal.
- Avoidance of places or thoughts associated with the event.
- Listlessness.
- Loss of interest in important activities.
- Restricted emotions.
- Aggressive behaviours.
- Substance abuse.

Controlling the hazard

Administrative Controls - managing the after-effects of critical incident stress in HCWs

One of the most common approaches to dealing with worker stress following critical incidents is the use of critical incident stress management (CISM) techniques. The underlying assumption is that early intervention after a critical incident may reduce the progression to more severe reactions such as posttraumatic stress disorder (PTSD). In general, CISM programs involve peers who are qualified and trained in mental health and CISM techniques. The CISM program is a choice that may be available to workers to deal with critical incidents after they occur.

Key features of a CISM program include:

- Development of a CISM team that will respond to critical incidents.
- Educational sessions to make workers aware of CISM.
- Communication and call protocols to mobilize the team when needed.
- Defusings, debriefings.
- Follow up procedures.

A critical incident stress debriefing (CISD) is an important part of the process that usually takes place within 24-48 hours of the incident and includes all those who were involved in the incident. The purpose of the CISD is to have those involved meet with peer counsellors and mental health professionals to discuss the incident and begin to work through their reactions.

There are generally seven phases of CISD. These are

Stages of CISD[36]	
Stage 1 Introduction	To introduce intervention team members, explain process, set expectations.
Stage 2 Fact	To describe traumatic event from each participant's perspective on a cognitive level.
Stage 3 Thought	To allow participants to describe cognitive reactions and to transition to emotional reactions.
Stage 4 Reaction	To identify the most traumatic aspect of the event for the participants and identify emotional reactions.
Stage 5 Symptom	To identify personal symptoms of distress and transition back to cognitive level.
Stage 6 Teaching	To educate as to normal reactions and adaptive coping mechanisms, e.g. stress management. Provide cognitive anchor.
Stage 7 Re-Entry	To clarify ambiguities, prepare for termination, facilitate "psychological closure," e.g. reconstruction.

CISD group discussions are not meant to be stand alone interventions, but rather a part of an integrated overarching CISM system. The continuum of CISM elements includes:[37]

- Pre-crisis preparation (to set expectations and improve stress management).
- Worker consultation and briefing (event driven).
- Defusing (symptom mitigation and triage).
- CISD (facilitate closure and symptom mitigation).
- Individual crisis intervention (1:1 consultation).
- Pastoral crisis intervention (spiritual support).
- Family or organizational CISM (foster support).
- Follow-up/referral (assess mental status and access higher level of care if needed).

CISM programs should take into account the types of critical incidents and provide elements and levels of intervention according to need. There exists some controversy as to the effectiveness of debriefing.

36 Cummins, A.A. (2006). "Crisis Response Network of Orange County." Orange County Department of Education. Retrieved from **www.emergency.ocde.us/Assets/Emergency/downloads/CISDProcessTwo-Sided.pdf.pdf.**

37 Everly, Jr., G.S., & Mitchell, J.T. (2000). "The Debriefing 'Controversy' and Crisis Intervention: A Review of Lexical and Substantive Issues." *International Journal of Emergency Mental Health,* 2(4), 211-225. Retrieved from **www.icisf.us/images/pdfs/rar/The Debriefing Controversy.pdf.**

Change

Changes are introduced in the modern healthcare environment with a greater frequency and magnitude than ever before. Organizational changes such as restructuring, staffing changes, new technology, and changes in organizational priorities have a significant impact on workers and often create an environment of uncertainty. As discussed in the section Concepts of Workplace Stressors (see pg. 21), work content (participation and control) and work context (role ambiguity and organizational culture) can impact stress and may be affected by organizational change. Individuals may resist change for a number of reasons including feelings that their security is threatened, fear of the unknown, anxiety or self doubt about their ability to adapt to the change, etc. Technological changes are common in healthcare and will be discussed in more detail in the next section.

Implementing an effective change process requires careful planning and consideration of the impact on workers. Key principles for effective change management include worker involvement, communication, and assistance to workers adversely impacted by the change.

Worker Involvement

To manage change effectively, involve workers in discussions about the proposed change and particularly how jobs might be developed and changed as well as how to optimize the change process. Consider a confidential system to enable workers to comment and ask questions throughout the change process (before, during, and after the change). Provide supports to workers who are experiencing increased stress as a result of the organizational change. Ensure that hazard assessments are reviewed and updated to take into account changes.

Communication

In some cases, workers do not understand the rationale for changes. It is essential that management communicate the reason for the change and what the organization hopes to achieve through the change. Discuss the timetable for action and the specific steps to be taken. Workers will want to know what impact the changes will have on their day-to-day activities and roles in the organization. The provision of training to assist with change should be undertaken to alleviate concerns. Ideally, new developments should be communicated as soon as possible to minimize the negative impact of rumours. Face-to-face communication is the best option in order to allow workers the opportunity to ask questions and express their views. It is helpful to utilize a variety of communication methods (e.g. face-to-face, paper, and electronic) in order to effectively get the message out to workers. Maintain an open-door policy where workers can talk to managers about their concerns and make suggestions for improving the change process.

Communicating During Change[38]

There are five key questions to answer when discussing organizational change:

1. Why change...why now?
2. What happens if we don't change?
3. What will change look like?
4. What's in it for me?
5. What can we expect?

Did you know?

Provide Support to Workers Impacted by the Change

Ensure workers are aware of the impact of the change on their jobs. Social changes (e.g. new work teams) for workers may have more of an impact on individual workers than technological or administrative changes. Update work objectives, job descriptions, and roles and responsibilities in order to avoid role conflict and role ambiguity (sources of workplace stress). Provide access to confidential counselling (e.g. EAPs) for workers who are having difficulty with the change process.

38 Jackson, L., and Schmidt, G. (2006). "Toolkit: Communicating During Change." Retrieved from **www.jacksonandschmidt.com/docs/CommunicatingDuringChange.pdf.**

Checklist

The Government of the United Kingdom, Health and Safety Executive has created a useful checklist[39] for optimizing organizational changes.

For effective change management:

- □ Tell the workers when changes are likely to be made to the organization.
- □ Explain why the changes are necessary.
- □ Consult with workers and involve them in planning changes.
- □ Listen to workers' ideas and concerns.
- □ Communicate throughout the change process.
- □ Clearly understand the risks involved in the change.
- □ Do all you can to reduce the risk associated with the change.
- □ Consider the potential for work overload in the new organization.
- □ Have sound procedures to manage the transition.
- □ Arrange the training needed for anyone moving to a new role.
- □ Continually check to see if the changes have been successful.
- □ Make contingency plans if the change has not been successful.
- □ Plan how you will cope with sudden unexpected change, e.g. the sudden loss of key workers.
- □ Learn from each change program so that the next change will be trouble-free.

Technological Change

Advances in technology have contributed to improved healthcare by improving diagnostic tools and treatment options. Clinical technology may include medical devices, clinical procedures and services, drugs and pharmaceuticals, and information technology[40]. In addition, technological advances in communication have changed the way healthcare is delivered and enabled efficient and effective management of medical records. Internal communications in healthcare organizations have been intensified and accelerated, enabling almost instantaneous communication without the time lags previously due to distance and location. Inventory technology paved the way for "just in time" purchasing, saving healthcare institutions dollars, space, and waste. Computerized medical records have facilitated the maintenance of vast amounts of medical information and make it readily accessible to authorized professionals, facilitating consultation and decision making.

39 Government of the U.K., Health and Safety Executive. (no date). "Human Factors Briefing Note No. 11 - Organisational Change." Available at **www.hse.gov.uk/humanfactors/topics/11orgchange.pdf.**

40 Geisler, E., & Heller, O. (1998). Management of Medical Technology: Theory, Practice and Cases. Kluwer Academic Publishers: Boston, MA.

While the benefits of increased technology are evident and well-accepted and appreciated, technology may also become a stressor for HCWs. New technologies are often accompanied by high expectations for increased efficiency and productivity. However, the introduction of new technologies requires training for workers and enough time for workers to feel competent in their use. When this does not occur, workers may see the technology as a stressor which reduces their level of understanding and control over their work. Craig Brod defined technostress as "a modern disease of adaptation caused by an inability to cope with the new computer technologies in a healthy manner."[41] He identified that anxiety created by technostress most commonly occurs to people who feel pressured to accept and use new technologies. Peter Brillhart[42] defines technostress as, "personal stress generated by reliance on technological devices, a panicky feeling when they fail, and a state of near-constant stimulation or being constantly 'plugged in'."

Technostressors[43,44]

- Introduction of technologically new equipment without sufficient training on its use.
- Lack of standardization across technologies.
- Expectations of greatly increased productivity as a result of technology.
- Techno-surveillance of workers.
- Work overload due to increased demands as a result of expectations of increased productivity.
- Excessive multitasking.
- Lack of understanding of the basics of the technology.
- Computer hassles.
- Machine error and expectations that the user will solve them.
- Machine reliability and downtime and required work-arounds or alternative processes.
- Expectations of instantaneous communication.

Continued on page 66.

Information

41 Brod, C. (1984). *Technostress: The Human Cost of the Computer Revolution.* Addison Wesley: ISBN 978-0201112115.

42 Brillhart, P.E. (September 2004). "Technostress in the Workplace – Managing Stress in the Electronic Workplace." *Journal of American Academy of Business, Cambridge:* 5, 203-207.

43 Brandon, L.D., & Inman, R.A. (1992). "A Dark Side of Productivity Improvement Techniques." *Work Study:* 41(6), 11-15.

44 Hudiburg, R. (1996). "Assessing and Managing Technostress." Presentation. Retrieved from **www.una.edu/psychology/alatalk.htm.**

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Information

- Longer wait times for the use of more technologically advanced medical equipment, causing worker and client frustration and stress.
- Rapid pace of technological change resulting in an inability to "keep up."
- Inability to extract oneself from the technology (e.g. personal computing devices, email readers, electronic agendas, etc.).
- Information overload when searching and using internet resources (data smog, information fatigue syndrome).

Symptoms related to technostress

Many of the symptoms related to technostress are the same as those experienced with other excessive workplace stressors. These may include memory lapses, sleep difficulties, headaches, irritability, digestive problems, heart-related issues, and emotional exhaustion.

The following list of warning signs of technostress was provided by Kimberly S. Young in an American Bar Association publication:

Information

Signs of Technostress[45]

When does it all become too much? Have you fallen into the trap of, "Because I can, I do," only to find yourself forgetful, unable to think clearly, and incapable of having a restful night's sleep? Here are some warning signs to see if you have fallen into the technostress cycle:

- *Do you spend more time doing sedentary work, often sitting alone at the computer?*
- *Do you find yourself multitasking more, juggling multiple things at once?*
- *Do you feel like your personal and work boundaries have become blurred?*
- *Do you feel anxious if you haven't checked your voice mail or e-mail within the last 12 hours?*

Continued on page 67.

45 Young, K.S. (October/November 2004). "Technostress." American Bar Association, GPSolo: 21(7). Retrieved from **www.abanet.org/genpractice/magazine/2004/oct-nov/technostress.html.** Reproduced with permission from the ABA.

Continued from page 66.

- *Do you have a hard time determining when you are finished researching a topic on the Internet?*
- *Do you feel that no matter how much you do, there is still so much more to accomplish?*
- *Do you feel your perception of time has altered, increasing what you believe can be accomplished in a day?*
- *Do you feel what some have called "information overload" or "information fatigue"?*

If left unattended, technostress may lead to memory loss, diminished concentration, impatience, irritability, difficulty relaxing or falling asleep—even headaches, stomach discomfort, backaches, and more serious health problems such as irritable bowel syndrome.

Information

Assessing the hazard of technostress

In assessing the potential for technostress, consider the use of technology from the following perspectives:

- Is new technology introduced to perform tasks?
- Is the technology used complex?
- Is the technology compatible with other necessary technology?
- Is appropriate training and practice time provided to workers?
- Are problem-solving resources available?
- Is technology used to monitor worker performance?
- Are back-up processes in place to use when technology fails?
- Are workers involved in the selection, implementation planning and evaluation of technological devices?

Controls to reduce technostress

The primary controls an organization employs to reduce the potential of technostress are administrative controls. While major engineering control opportunities exist in the design and development of technology to make it easier to use, an employer's choice of technology is an administrative control.

Administrative controls an organization can use to reduce the risk of technostress include:

- Selection of technology that is designed to be easy for the user.
- Worker participation in selection, trial and implementation of technology and the provision of feedback as to its use.
- Sufficient worker training to ensure that workers feel confident and competent to use the technology.
- Provision of problem-solving resources and support to workers.
- Back-up plans in the event of technology failure.
- Be an influential, credible supporter for the introduction of the new technology (executive support).
- Use of a change management strategy for organization-wide technology change.
- Setting of realistic expectations for the use of communication technology.
- Reduced use of technological monitoring of worker productivity.
- Setting and communicating priorities to relieve stress in multi-tasking.
- Updates of hazard assessments each time new technology is introduced.

Personal controls for reducing the risk of technostress include:

- Self-education concerning new technologies.
- Open communication about stress related to change.
- Time management.
- Setting priorities.
- Healthy lifestyle including good nutrition, exercise and getting enough sleep.
- Setting realistic goals.
- Limit the need to multi-task.
- Technology "time-outs" (avoiding being "plugged in" continually).
- Relaxation, meditation and taking vacations.

Fatigue and Hours of Work

Fatigue is the state of being tired and may include mental or physical exhaustion. Everyone experiences fatigue occasionally as it is the way the body indicates its need for rest and sleep. Fatigue is difficult to quantify and is therefore a challenging concept to study and evaluate. While fatigue could be considered primarily a personal factor, work-related causes of fatigue include long work hours, long hours of physical or mental activity, insufficient recovery time between shifts, inadequate rest, high stress, or a combination of these factors. Hours of work including shift work and extended shifts are common in healthcare as well as other industries that operate under a 24 hours a day, 7 days a week model. Fatigue is a hazard in the workplace that should be anticipated, recognized, assessed, and controlled.

Circadian Rhythms[46]

Virtually every function of the body – sleep, wakefulness, and alertness for example – is timed according to a day-night cycle. Such cycles, approximately 23-25 hours long, are known as circadian rhythms. Although circadian rhythms are influenced by external cues like sunrise and sunset, they are basically controlled by "biological clocks" located in the brain. Individuals function best when they follow their body's natural pattern of sleep, wakefulness, and alertness.

Focus

Causes of fatigue

The main factors associated with fatigue include the following:

- Loss of sleep – the loss of sleep may be acute or cumulative. An example of an acute loss of sleep would be having 4 hours of sleep instead of the usual 8 hours. A cumulative loss of sleep may relate to several days in which sleep duration is reduced (e.g. 6 hours).
- Poor quality sleep – disruption of the normal sleep cycle including waking up periodically.
- Working during low points (related to circadian rhythms) in the day – people are most likely to want to sleep and have low alertness levels during the early hours of the morning (e.g. from 2am until 6am).
- Extended working hours.
- Poorly designed shift schedules – shift schedules that do not incorporate adequate rest / recovery periods and do not reflect the circadian rhythms.
- Inadequate breaks during the working day.

46 Government of Alberta. (2004). "Fatigue, Extended Work Hours, and Safety in the Workplace." Bulletin ERG015. Retrieved from **www.employment.alberta.ca/documents/WHS/WHS-PUB-ERG015.pdf.**

Did you know?

Microsleep

A microsleep is a brief, unintended period of sleep lasting a short period (from a few seconds to several minutes) which is usually the result of sleep debt or mental fatigue. People who experience micro sleeps are usually unaware of the event and may have their eyes open during the microsleep. Microsleeps are particularly dangerous if they occur when continual alertness is necessary for safety, such as when operating a motor vehicle.

Signs and symptoms of fatigue[47]

Although the effects of fatigue vary between workers, the typical signs and symptoms of fatigue include tiredness, sleepiness (including microsleeps), irritability, depression, giddiness, and loss of appetite.

Effects of fatigue on performance and safety

Fatigue has a measurable impact on human performance. Fatigue is most likely to affect work performance when conducting tasks that are repetitive and take thirty minutes or more to complete and tasks that are complex and require concentration. A fatigued person may experience the following impairments to performance:

- Slowed reactions – physical reaction speed and speed of thought process.
- Failure to respond to stimuli including changes in the surroundings and information provided.
- Incorrect actions either physical or mental.
- Flawed logic and judgement.
- Inability to concentrate.
- Increases in memory errors and forgetfulness.
- Decrease in vigilance.
- Reduced motivation.
- Increased tendency to take risks.

47 Government of Alberta. (2004). "Fatigue, Extended Work Hours, and Safety in the Workplace." Bulletin ERG015. Retrieved from **www.employment.alberta.ca/documents/WHS/WHS-PUB-ERG015.pdf.**

Workers cope with fatigue and the reduced level of function through a variety of strategies including working slower, checking and rechecking their work, relying on fellow workers, and choosing to perform less critical tasks. These strategies help workers to accommodate their reduced level of function while fatigued by slowing down the pace of their activities and the decision making process. Time pressure, high job demands and working alone can compromise the effectiveness of these strategies.

Fatigue and safety

The reduced level of worker function associated with fatigue may result in an increased risk of errors, incidents, and injuries. A review of shift work research by Folkard and Tucker[48] confirms that safety and productivity may be compromised on night shifts. Specifically, safety (as measured by worker incidents and injuries) declines over successive night shifts, with increased incidents occurring with increasing hours on duty and with increasing time between rest breaks. A study[49] of shift workers in an Oregon hospital revealed that evening and night shift workers were at greater risk of sustaining an occupational injury than day shift workers and that the severity of injuries was greatest for night shift workers.

Analyses of major industrial disasters including Bhopal, Three Mile Island, Chernobyl, and the Exxon Valdez have demonstrated that fatigue and human error were significant factors. An extreme example of the effect of fatigue on errors is illustrated by research relating to the working hours of medical interns and serious medical errors.[50] Research confirms that interns make substantially more serious medical errors when they work frequent shifts of 24 hours or more than when they work shorter shifts.

Overall, the risk of errors, injuries, and incidents has been found to be higher on night shifts and to increase with successive shifts, particularly successive night shifts. Higher risk is also associated with increasing shift length over eight hours and inadequate breaks. The potential for reduced performance and errors based on fatigue applies particularly to tasks that require vigilance and monitoring, decision making, awareness, fast reaction time, tracking ability, and/or memory.[51]

48 Folkard, S., & Tucker, P. (2003). "Shift work, safety and productivity." *Occupational Medicine:* 53(2), 95-101.

49 Horwitz, I.B., & McCall, B.P. (2004). "The impact of shift work on the risk and severity of injuries for hospital employees: an analysis using Oregon workers' compensation data." *Occupational Medicine:* 54(8), 556-563.

50 Landrigan, C.P., et. al. (2004). "Effect of Reducing Interns' Work Hours on Serious Medical Errors in Intensive Care Units." *The New England Journal of Medicine:* 351(18), 1838-1848.

51 Government of the U.K., Health and Safety Executive. (2006). "Managing shift work." HSG256. Retrieved from **www.hse.gov.uk/pubns/priced/hsg256.pdf.**

Did you know?

Sleep Inertia

Sleep inertia is the sleepiness including cognitive and psychomotor impairment that can occur immediately after awakening. Research has shown that the sleep inertia may include impaired performance and reaction time, reduced memory ability, and an impaired ability to make decisions. This may occur more commonly when awakening from slow-wave sleep or when sleep duration is insufficient.

According to a Government of Alberta Workplace Health and Safety Bulletin, "the impaired or reduced functions caused by sleep inertia can have significant effects on safety".[52]

Alertness Strategies for Workers

Strategies exist to temporarily increase alertness and minimize fatigue including the following:[53]

- Use moderate exercise prior to starting work to increase alertness.
- Maintain bright lighting levels.
- Take regular, short breaks.
- Get up and walk around during breaks.
- Plan to perform stimulating/interesting work at times of low alertness.
- Communicate with co-workers to increase alertness.

Checklist

Fatigue Management Checklist[54]

- □ Working hours are not too long.
- □ Workers get enough rest between shifts.
- □ Workers do not work too many night shifts in a row.
- □ Managers negotiate with workers or their unions about overtime or double shift working.
- □ Shift schedules fit in with individual preferences.

Continued on page 73.

52 Government of Alberta. (2005). "Focus on Human Performance Part One: Sleep Inertia." Bulletin ERG034. Retrieved from **www.employment.alberta.ca/documents/WHS/WHS-PUB-erg034.pdf**

53 Government of the U.K., Health and Safety Executive. (2006). "Managing shift work." HSG256. Retrieved from **www.hse.gov.uk/pubns/priced/hsg256.pdf.**

54 Government of the U.K., Health and Safety Executive. (2005). "Human Factors Briefing Note No. 10: Fatigue." Retrieved from **www.hse.gov.uk/humanfactors/topics/10fatigue.pdf.**

Continued from page 72.

- ☐ Work is organized to avoid assigning critical tasks at the ends of shifts or during "low points" in the shift (e.g. 3am).
- ☐ Shifts rotate forward.
- ☐ Workers take quality rest breaks in their work.
- ☐ Workers are encouraged to report fatigue problems to management and the organization will attempt to make improvements.
- ☐ The environment is designed to improve alertness (and minimize drowsiness).
- ☐ There are policies in place to avoid overloading one person with overtime or double shifts.
- ☐ Incidents or accidents are thoroughly investigated and fatigue is examined as a possible cause.

Checklist

Extended hours of work

The definition of extended hours of work varies significantly and may include overtime beyond a standard work shift, 12-hour work days or work periods exceeding 12 hours. According to Alberta's Employment Standards Code, the work day is limited to 12 consecutive working hours in any one work day unless special circumstances apply.

Hours of Work Confined

16(1) An employee's hours of work must be confined within a period of 12 consecutive hours in any one work day, unless

a. an accident occurs, urgent work is necessary to a plant or machinery or other unforeseeable or unpreventable circumstances occur, or

b. the Director issues a permit authorizing extended hours of work.

(2) If hours of work have to be extended, they are to be increased only to the extent necessary to avoid serious interference with the ordinary working of a business, undertaking or other activity.

Alberta Employment Standards Code

Legislated Requirements

Most people require 7.5 to 8 hours of uninterrupted hours of sleep each day for optimal health and performance. A single night of shortened or poor quality sleep may not affect worker performance but repeated reduction of sleep hours or quality can have a significant impact. Extended work hours may interfere with a worker's family and social needs by virtue of a lack of time. There is the potential for eating and sleeping habits to suffer because of limited sleep time as well.

Controls for Extended Hours of Work

It is important for organizations to consider the structure of work shifts in order to support workers in getting adequate rest and achieving work life balance. Organizations should recognize the potential for fatigue and manage fatigue like any other hazard. For workers performing extended work shifts (e.g. 12 hour work schedule or overtime), there is a need to evaluate the time available for quality sleep once travel, eating, family, and social time are considered. Organizations must comply with the Alberta Employment Standards Code and may consider policies to address mandatory off-duty hours. Where collective agreements address these issues, the terms and conditions must be followed.

Shift work

Approximately 30% of employed Canadians perform shift work; that is, non-standard working hours.[55] As healthcare is a 24 hours a day, 7 days a week industry, shift work is a common issue for a variety of HCWs. Shift work usually means a work activity scheduled outside standard daytime hours where there may be a handover of duty from one individual or work group to another. Examples of shift work include:[56]

- Work during the afternoon, night or weekend, typically with work outside standard daytime hours (7am to 7pm).
- Rotating hours of work.
- Split shifts with work periods of two distinct parts with a significant break (often several hours) in between.
- Extended work periods (12 hours or more) often associated with a compressed work week.
- Overtime.
- Standby and on-call duties.

55 Shields, M. (2002). "Shift work and health." Health Reports: 13(4), 11-33. Retrieved from **www.statcan.gc.ca/studies-etudes/82-003/archive/2002/6315-eng.pdf.**

56 Government of the U.K., Health and Safety Executive. (2006). "Managing shift work." HSG256. Retrieved from **www.hse.gov.uk/pubns/priced/hsg256.pdf.**

Assessment Tools

Summary Evaluation of Tools Used to Estimate Shift Work-Associated Fatigue

Stone, B. M.; *Tools and techniques for estimating risks associated with shift work;* Rail Safety and Standards Board Human Factors Research Catalogue; CD-ROM; 2004

HSE's Fatigue and Risk Index Tool

Government of the U.K.; Health and Safety Executive; *The development of a fatigue/risk index for shift workers* RR446/2006; 2006; **www.hse.gov.uk/research/rrhtm/index.htm**

Government of the U.K.; Health and Safety Executive; Fatigue and Risk Index Tool; 2005; **www.hse.gov.uk/research/rrpdf/rr446cal.xls**

The Epworth Sleepiness Scale

Johns, M. W.; *A new method for measuring daytime sleepiness;* The Epworth sleepiness scale; Sleep; 1991; 14 (6); 540-545

The Standard Shift Work Index

Barton, J., Spelten, E., Totterdell, P. et al; *The Standard Shift work Index: A battery of questionnaires for assessingshift-related problems;* Work and Stress; 1995; 9 (1); 4-30

Swedish Occupational Fatigue Inventory

Ahsberg, E., Gamberale, F. and Kjelberg; *A Perceived Quality of Fatigue during Different Occupational Tasks - Development of a Questionnaire;* International Journal of Industrial Ergonomics; 1997; 20 (2); 121-135

Effects of Shift Work

Research suggests that there can be undesirable impacts for workers performing shift work. Key categories of effects include disruption of circadian rhythms, fatigue, sleeping difficulties, disturbed appetite and digestive problems, reliance on sedatives and/or stimulants, and family and social problems.

Health effects associated with long-term exposure to shift work[57] include gastrointestinal problems (such as indigestion, abdominal pain, constipation, chronic gastritis and peptic ulcers), cardiovascular problems (such as hypertension and coronary heart disease), and increased susceptibility to minor illnesses (such as colds, flu and gastroenteritis). There have been links made between shift work, effects of melatonin, and increased incidence of breast cancer among shift workers.[58] Research also suggests a relationship between shift work and pregnancy outcomes including miscarriage, low birth weight, and preterm birth.[59] Shift work may exacerbate existing health conditions such as diabetes, asthma, epilepsy, sleep disorders and psychiatric disorders.

There are three proposed mechanisms to explain the association between shift work and health problems: disruption of circadian rhythms, adoption or worsening of unhealthy behaviour, and stress.[60] It is important to note that the effects of shift work vary based on individual and social factors such as individual tolerances, health status, lifestyle, attitude, behaviour, age, gender, etc.

Focus

Insomnia

Insomnia is the inability to obtain an adequate amount or quality of sleep. The difficulty can be in falling asleep, remaining asleep, or both. People with insomnia do not feel refreshed when they wake up. Insomnia is a common symptom affecting millions of people that may be caused by many conditions, diseases, or circumstances. Shift work is associated with an increased prevalence of insomnia.

57 Government of the U.K., Health and Safety Executive. (2006). "Managing shift work." HSG256. Retrieved from **www.hse.gov.uk/pubns/priced/hsg256.pdf.**

58 Davis, S., Mirick, D.K., & Stevens, R.G. (2001). "Night Shift Work, Light at Night, and Risk of Breast Cancer." J Natl Cancer Inst: 93(20), 1557-1562. Retrieved from **www.jnci.oxfordjournals.org/content/93/20/1557.abstract.**

59 Knutsson, A. (2003). "Health Disorders of Shift Workers." *Occupational Medicine:* 53:103–108.

60 Shields, M. (2002). "Shift work and health." Health Reports: 13(4), 11-33. Retrieved from **www.statcan.gc.ca/studies-etudes/82-003/archive/2002/6315-eng.pdf.**

Controls for Shift Work

Engineering, administrative and personal control strategies can be used to reduce the hazards associated with shift work.

Engineering Controls

Design the work environment to reduce risks associated with shift work. Examples of good practice guidelines for the shift work environment include the following:

- Provide similar facilities (e.g. exercise rooms, cafeteria) and opportunities for shift workers as those available to daytime workers.
- Ensure appropriate lighting levels and types and allow adjustability by workers.
- Provide an appropriate thermal environment and allow adjustability by workers, if possible.
- Provide a well lit, safe and secure working environment to minimize the risk of workplace violence.

Administrative Controls

- Adequate staffing.
- Consider increasing supervision during key periods of low alertness.
- Train supervisors and workers responsible for shift working arrangements regarding the demands and risks of shift work.
- Control overtime and shift swapping by monitoring and recording hours worked and rest periods.
- Train and provide information for workers, families and management on the risk associated with shift work and appropriate strategies for managing the stress.
- Design work schedules for workers performing standby/on-call duties or overtime to allow adequate rest.
- Develop communication strategies to keep shift workers informed.
- Establish systems to transmit information to the next shift team (e.g. report).

» Encourage workers to inform their doctors about their work schedules.

» Promote healthy living strategies such as exercise and healthy diets.

» Review and evaluate shift work arrangements regularly. Consider tracking performance measures that may be impacted by shift work such as fatigue, sleepiness at work, rates of incidents and near misses, absenteeism, staff turnover, performance and productivity.

» Encourage workers to report concerns and suggestions to improve shift work arrangements.

Information

Good Practice Guideline for Shift Work Schedule Design[61]

» Plan a workload that is appropriate to the length and timing of the shift.

» Strive to schedule a variety of tasks to be completed during the shift to allow workers some choice about the order they need to be completed.

» Avoid scheduling demanding, dangerous, safety-critical or monotonous tasks during the night shift, particularly during the early morning hours when alertness is at its lowest.

» Engage workers in the design and planning of shift schedules.

» Avoid scheduling workers on permanent night shifts.

» When possible, offer workers a choice between permanent and rotating shifts.

» Use a forward-rotating schedule for rotating shifts, when possible.

» Avoid early morning shift starts before 7am, if possible.

» Arrange shift start/end times to correspond to public transportation or consider providing transport for workers on particular shifts.

» Limit shifts to a maximum of 12 hours (including overtime) and consider the needs of vulnerable workers.

Continued on page 79.

61 Government of the U.K., Health and Safety Executive. (2006). "Managing shift work." HSG256. Retrieved from **www.hse.gov.uk/pubns/priced/hsg256.pdf.**

Continued from page 78.

Information

- Limit night shift to 8 hours for work that is demanding, dangerous, safety critical or monotonous.
- Avoid split shifts unless absolutely necessary.
- Encourage and promote the benefit of regular breaks away from the workstation.
- Where possible, allow workers some discretion over the timing of breaks but discourage workers from saving up break time for the end of the work day.
- In general, limit consecutive working days to a maximum of 5-7 days.
- For long work shifts (>8 hours), for night shifts and for shifts with early morning starts, consider limiting consecutive shifts to 2-3 days.
- Design shift schedules to ensure adequate rest time between successive shifts.
- When switching from day to night shifts (or vice versa), allow workers a minimum of 2 nights' full sleep.
- Build regular free weekends into the shift schedule.

Personal Controls

Workers will benefit from the development of these strategies to optimize their performance and minimize the risk of ill effects from shift work.

- Develop a sleep schedule.
- Establish a favourable environment for sleeping.
- Implement strategies to promote sleep.
- Adjust diet.
- Minimize the use of stimulants and sedatives.
- Incorporate physical fitness and other healthy lifestyle choices.
- Address hazards associated with commuting to and from work.

Shift Work

Resources

Government of Alberta; eLearning Program; Shiftwork and Fatigue; October 8, 2005; **www.employment.alberta.ca/whs/learning/Shiftwork/index.html**

Government of Alberta; Fatigue, *Extended Work Hours, and Safety In the Workplace*; ERG015; revised June 2004; **www.employment.alberta.ca/documents/WHS/WHS-PUB-erg015.pdf**

Canadian Centre for Occupational Health and Safety; *Rotational Shiftwork*; reviewed February 19, 2007; **www.ccohs.ca/oshanswers/ergonomics/shiftwrk.html**

Government of the U.K; Health and Safety Executive; *Managing shift work*; HSG256; 2006; **www.hse.gov.uk/pubns/priced/hsg256.pdf**

Occupational Health Clinics for Ontario Workers Inc.; *Shiftwork: Health Effects and Solutions*; 2005; **www.ohcow.on.ca/resources/handbooks/shiftwork/Shiftwork.pdf**

Shifting to Wellness Program; **www.shiftingtowellness.ca**

Sources of Exposure to Psychological Hazards - Environmental Factors

Environmental factors can be workplace stressors. In this section, the focus will be on the role of environmental factors that may contribute to psychological stress in the workplace, rather than on the physical, chemical, or biological aspects of the environment (these are covered in earlier volumes in this series).

The physical environment of a building includes the indoor environment parameters plus the architectural and interior design features. Individual attitudes, personal tolerances, factors and needs, coupled with organizational factors, affect the individual's response to the physical environment. The outcomes of those responses may be physiological, psychological, cognitive, or social. If the outcomes overwhelm the worker's tolerance, workplace stress may result. This conceptual frame is well described in an extensive review article by Mahbub Rashid and Craig Zimring.[62]

62 Rashid, M., & Zimring, C. (2008). "A Review of the Empirical Literature on the Relationships Between Indoor Environment and Stress in Health Care and Office Settings: Problems and Prospects of Sharing Evidence." *Environment and Behaviour:* 40(2), 151-190.

Noise

Noise-induced hearing loss is a well-recognized and measurable effect of high noise levels in workplace environments. The auditory effects of excessive noise were discussed in Volume 4 of this series. In addition to the physical effects of excessive noise, many studies have linked psychological effects including stress to "nuisance" noise levels.

Definition

A useful definition of noise is "unwanted sound." What one individual considers noise, another may not.

A Johns Hopkins University study[63] indicated that average hospital noise levels are increasing. Since 1960, daytime noise levels have risen from an average of 57 decibels to 72 decibels and average night time levels have increased from 42 decibels to 60 decibels. The World Health Organization's 1995 hospital noise guidelines recommend client rooms have noise levels of 35 decibels or below.

Worker safety and client safety may be adversely affected by noise. Noise may interfere with effective communication of important information, including client care information. Physiological reactions to noise are similar to other stress responses including increases in blood pressure and catecholamine secretion and decreases in immune system functioning.[64,65]

Focus

"Studies on the adverse effects of environmental noise on mental health cover a variety of symptoms, including anxiety; emotional stress; nervous complaints; nausea; headaches; instability; argumentativeness; sexual impotency; changes in mood; increase in social conflicts, as well as general psychiatric disorders such as neurosis, psychosis and hysteria. Large-scale population studies have suggested associations between noise exposure and a variety of mental health indicators, such as single rating of well-being; standard psychological symptom profiles; the intake of psychotropic drugs; and consumption of tranquilizers and sleeping pills."[66]

63 Johns Hopkins University. (November 21, 2005). "Rise in Hospital Noise Poses Problems for Patients and Staff." Press Release. Retrieved from **www.jhu.edu/news/home05/nov05/noise.html.**

64 Staples, S.L. (1997). "Public Policy and Environmental Noise: Modeling Exposure or Understanding Effects." *American Journal of Public Health:* 87(12), 2063-2067.

65 Westman, J.C., & Walters, J.R. (1981). "Noise and Stress: A Comprehensive Approach." *Environmental Health Perspectives:* 41, 291-309.

66 World Health Organization. (1999). *Guidelines for community noise: Chapter 3 – Adverse health effects of noise.* Retrieved from **www.who.int/docstore/peh/noise/Comnoise3.htm.**

Assessing the psychological hazard of noise

Assessing the psychological hazard of noise should take into account individual perceptions of noise, as well as individual sensitivities to environmental noise. Common sources of noise in healthcare environments include (but are not limited to):

- Heating ventilation and air conditioning (HVAC) systems.
- Medical equipment.
- Alarms and auditory signals.
- Conversation.
- Call bells, pagers and public address systems.
- Wheeled patient handling equipment.
- Utility carts.
- Telephones.
- Kitchen equipment, including refrigerators.
- Cleaning equipment and activities.
- Helicopter landings.
- Pneumatic tube systems.
- Printers.
- Ice machines.
- Automatic doors.
- Paper towel dispensers.
- Noise associated with regular human activity – e.g. doors opening and closing, water running, talking, etc.

There are several means of obtaining information about perceived noise levels. Industrial hygiene surveys of noisy areas often focus on identifying levels of noise that are known to cause hearing loss rather than on noise that produces psychological effects. Reviewing worker reports of noisy workplace environments as well as incident reports that indicate noise as a factor contributing to incidents may provide indication of areas where psychological hazards related to noise may be present. In addition, a survey may be an effective means of qualitatively identifying the presence of risks of psychological effects related to noise exposure. If a high percentage of workers identify the following statements to be true, the possibility of psychological hazards related to nuisance noise should be further investigated.

Nuisance Noise

- □ I often have a headache at the end of working a shift.
- □ I need to speak louder to be heard and understood at work than I do outside work.
- □ People often ask me to repeat what I have said.
- □ I often ask people to repeat what they've said.
- □ I have complained about a source of noise in the past month.
- □ I have made or witnessed an error that could be attributed to not hearing something clearly.
- □ I feel irritated at the end of a shift.
- □ I prefer working evenings or nights to the dayshift because of the noise levels during the day.
- □ There are too many alarms going off where I work.

Checklist

Controlling noise as a psychological hazard in the workplace

Controls to reduce the level of noise in healthcare workplaces were discussed in detail in Volume 4. The emphasis on noise in Volume 4 is the reduction of noise levels to meet regulatory requirements and control noise exposures to workers to ensure no hearing loss. Controlling nuisance noise that may be a psychological hazard requires the identification of sources of noise and choosing engineering or administrative controls to reduce noise.

In Volume 4, the following focus box was provided.

Focus

Four Primary Methods of Controlling Noise by Engineering Control Methods are:[67]

SUBSTITUTION – replace noisy equipment, machinery or processes with quieter ones.

MODIFICATION – modify the way equipment operates so that it generates less noise. This may include installing a muffler, reducing equipment vibration by dampening or bracing, improved lubrication, balancing rotating parts or operating equipment at a lower speed. Alternatively, the area itself can be modified. Reverberation, for example, can be reduced by covering walls with sound absorbing materials.

ISOLATION – this may involve isolating workers from a noisy area by having them work in an enclosed room. Examples of this approach include segregating noisy areas with sound barriers and partitions, isolating noisy equipment by placing it in an enclosure, and using sound absorbent material and covers over noisy equipment.

MAINTENANCE – malfunctioning or poorly maintained equipment generates more noise than properly maintained equipment. Noise control equipment must also be properly maintained to be effective.

This information is also very relevant for noise levels that are below those expected to cause hearing loss, but high enough and constant enough to be a workplace psychological stressor.

Specific examples of controls to reduce noise include:[68]

Engineering Controls

- Sound absorber panels[69] (fiberglass insulation wrapped inside antibacterial fabric).
- Use of personal communication devices instead of overhead paging systems.
- Maintenance and repair of hospital equipment.
- Lubrication of equipment with moving parts.
- Design considerations related to noise reduction in new and renovated facilities.

67 Government of Alberta. "Alberta OHS Code (2009) Explanation Guide." Retrieved from **www.employment.alberta.ca/SFW/3969.html.**

68 Herman Miller. (2006). "Sound Practices: Noise Control in the Healthcare Environment." Research Summary. Retrieved from **www.hermanmiller.com/MarketFacingTech/hmc/research_summaries/pdfs/wp_Sound_Practices.pdf.**

69 Johns Hopkins University. (November 21, 2005). "Rise in Hospital Noise Poses Problems for Patients and Staff." Press Release. Retrieved from **www.jhu.edu/news/home05/nov05/noise.html.**

» Isolated areas for medication preparation and administration.

» Padding chart holders and pneumatic systems.

» Sound-masking technology.

Administrative Controls

» Lowering the ring volume of telephone.

» Encouraging the use of soft soled shoes.

» Educating workers on the noise levels created by various activities.

» Posting reminders to reduce noise.

» Purchasing decisions considering auditory performance.

» Locating noisy equipment in more isolated areas where the noise will have a lower impact.

» Organizing work at nursing stations to reduce noise.

Indoor Air Quality

Hospitals and other healthcare facilities are often complex structures that house a multitude of activities and should meet many different specific standards for environmental parameters. When sources of biological or chemical contamination are not adequately controlled, indoor air quality (IAQ) may be adversely affected. In addition, the perception of "air quality" is often impacted by factors not directly related to the quality of air. For this reason, the term indoor air quality is often substituted with the broader term "indoor environment quality". This broader term includes environmental aspects such as lighting, noise, work design, and worker morale.

In this section, we will not focus on air quality issues where the source of contaminants has been identified and evaluated, as these represent chemical, physical, or biological hazards covered in earlier volumes of this series. The psychological impacts of indoor environment quality will include those factors related to the perception of poor indoor air quality for which no underlying cause covered by legislated standards has been found.

Focus

The causes of occupant complaints are multi-factorial and often elusive. They can involve chemical, microbiological, physical and psychological mechanisms. However from a rational perspective, contaminant source control is the most effective general means to improve IAQ.

Analysis of air samples may fail to reveal significant concentrations of any one contaminant, so the problem is often attributed to the combined effects of many pollutants at low concentrations, complicated by other environmental factors. For example, several factors influence thermal comfort, such as overheating, underheating, humidity extremes, drafts, and lack of air circulation. Likewise, odours are often associated with a perception of poor air quality, whether or not they cause symptoms. Environmental stressors such as noise, vibration, overcrowding, and poor workplace design and lighting can produce symptoms that may be confused with the effects of poor air quality. Further, physical discomfort or psychosocial problems (such as job stress) can reduce tolerance for substandard air.[70]

Assessing the psychological hazards related to indoor air quality concerns

Awareness of potential indoor air quality issues often first occurs with reported complaints or increased absenteeism where environmental issues are cited as a cause. A systematic approach should be used to identify indoor air quality problems. This approach should include:

- Reviewing complaints to identify areas of concern, time when poor indoor air quality is perceived, and symptoms that workers report.
- Conducting a walk-through of the area to understand the design, floor plan, ventilation system and activities conducted in the area or adjacent areas.
- Interviewing occupants of the area to determine the scope of complaints, as well as the time when complaints began.
- Having workers maintain a log book over a specified period of time to identify any patterns in times or symptoms when issues are most noticeable.
- Identifying any link between times symptoms are present and specific workplace activities.

70 Health Canada. (1995). *Indoor Air Quality in Office Buildings: A Technical Guide.* Retrieved from **www.hc-sc.gc.ca/ewh-semt/pubs/air/office_building-immeubles_bureaux/background-contexte-eng.php.** This copy is a reproduction of part of an official work published by the Government of Canada and has not been produced in affiliation with or endorsement of the Government of Canada.

- Reviewing of the ventilation system details with facility engineers or HVAC personnel to determine if there are any malfunctions or inadequate designs.
- Monitoring temperature and humidity over a specified period.
- Checking for any potential contaminants including dust, odours from cleaning or construction materials.

Where the source of indoor air quality is determined, remediation of the area or corrective action to address the hazard should be carried out. If an indoor air quality problem is identified and corrected early, workers are likely to have less of a psychological impact related to the issue.

There is a higher risk of a psychological stress response if some of the following factors are present:

- No identified cause of the problem.
- Insufficient validation of worker concerns.
- No change in conditions over a long period of time.
- No worker involvement in assessing the hazard.
- Poor management-worker relations.
- Inadequate support from the supervisor.
- Poor communications.
- Workers who complain of being labelled as “trouble-makers”.
- Lack of control over changes to the area.
- Insufficient funds to correct the problem.

Controlling the psychological hazards related to indoor air quality concerns

For indoor air quality problems where a source has been identified, engineering controls are the first choice in reducing both physical and psychological risks associated with poor air quality. Examples of engineering controls include:

- Proper ventilation system design to meet the needs related to activities performed.
- Ventilation system maintenance.
- Isolation/segregation of specific work areas.

Examples of administrative controls include:

- Contractor requirements to reduce air contamination related to construction activities.
- Timely investigation of worker complaints to determine source/cause.
- Selection and purchase of low-pollutant cleaning chemicals.
- Cleaning schedules.
- Infection prevention and control standards.
- Worker training.
- Rules regarding use of personal appliances (heaters, humidifiers, etc.) that may impact air flow.

To reduce the psychological hazards related to indoor air quality issues, the following administrative controls may be useful:

- Management support of a policy committing to ensuring an acceptable indoor air quality in all workplaces.
- A process to report indoor air quality issues that ensures that complaints are taken seriously.
- Worker involvement in the process of hazard assessment and control, including the maintenance of log books of symptoms.
- Implementation of corrective action in a timely manner for indoor air quality issues where the source/cause has been clearly established.
- Communication, including group meetings where warranted, to enable a frank discussion of issues and what is being done to address them.
- Use of experts to assist in problem identification and resolution, as warranted.

Outcomes of Workplace Stress that Can Impact Personal Health and Workplace Safety

As mentioned previously, it is not always easy or appropriate to distinguish between work organization factors and personal factors when discussing psychological hazards; one often leads to the other. The factors discussed in this section are those most commonly seen as personal behaviours or outcomes that resulted from exposure to psychological hazards – either at work or outside work. Primary, secondary, and tertiary controls are necessary to address these factors.

Substance Abuse

As noted previously, while eustress may be stimulating and important to overall wellbeing, excessive stress may result in behavioural, medical or psychological responses. Substance abuse may be a behavioural consequence of excessive stress. Substance abuse may then also lead to medical and psychological consequences. In addition, substance abuse by HCWs may impact work performance and judgement and ultimately worker and client safety. Alcohol is the most common substance abused in western society.

Illegal "recreational drugs" and prescription medications are also sources of substance abuse. The ease of access to prescription drugs may exacerbate the problem in healthcare organizations.

The impacts of substance abuse in the healthcare workplace can be substantial. These may include (but are not limited to):

- Impaired judgement.
- Increased absenteeism.
- Reduced productivity.
- Focus on obtaining substances during work hours, reducing concentration on work tasks.
- Increased workload for co-workers if the worker is not carrying out full duties.
- Illegal actions including selling, buying, or stealing substances while at work.
- Medical effects of substance abuse.
- Increased costs associated with absenteeism, disability related to substance abuse.
- Reduced client, worker and co-worker safety as a result of worker impairment.
- Legal claims related to medical errors.

A list of substances that are sometimes abused and their effects is found on the CCOHS document, "Substance Abuse in the Workplace."[71]

71 Canadian Centre for Occupational Health and Safety. (2008). "Substance Abuse in the Workplace." OSH Answers: Health Promotion/Wellness/Psychosocial. Retrieved from **www.ccohs.ca/oshanswers/psychosocial/substance.html.**

Assessing the psychological hazard of substance abuse

Two avenues of hazard assessment are useful in considering the hazard of substance abuse. First, excessive workplace stressors may contribute to increased substance abuse. Work organizational factors can contribute to excessive stress. A list of common work organizational factors was presented earlier (see pages 26-27). Each of these should be reviewed in the context of its presence in the workplace and strategies to modify those factors should be provided to reduce or eliminate the hazards.

A second avenue of assessment is directed towards identifying the signs and symptoms of substance abuse in workers to enable early treatment options and reduce impacts.

The following, "Indicators of Problematic Substance Use" has been reproduced from a document produced by the College of Registered Nurses of Nova Scotia.[72]

Personality and/or Mental Health Indicators

- Irritability.
- Isolation from colleagues and others.
- Inappropriate responses/behaviours.
- Confusion and/or memory lapses.
- Forgetfulness and lack of focus/concentration.
- Lying and/or providing implausible excuses for behaviours.
- Mood fluctuations (e.g. rapid swing from being extremely fatigued to being 'perky').
- Family disharmony: reflected in what is said about family members.

Physical Indicators

- Restlessness.
- Sweating.
- Tremors.
- Slurred speech.
- Unsteady gait.
- Unexplained bruises.
- Complaints of headaches.
- Diarrhea and vomiting.
- Abdominal/muscle cramps.

72 College of Registered Nurses of Nova Scotia. (2006). "Problematic Substance Use in the Workplace: A Resource Guide for Registered Nurses." Retrieved from **www.crnns.ca/documents/Problematic Substance Use Resource Guide.pdf.**

» Odour of alcohol on breath.

» Frequent use of breath mints, gum or mouthwash.

» Deterioration in appearance and/or personal hygiene.

Performance and Professional Image Indicators

» Errors in judgement.

» Doing just enough work to get by.

» Calling in sick frequently, but still working overtime.

» Moving to a position with less visibility or supervision.

» Arriving late for work; leaving early.

» Excessive number of incidents/mistakes.

» Sloppy, illegible or incorrect charting.

» Taking extended breaks throughout shifts; sometimes without informing colleagues.

» Changes in charting practices (e.g. inadequate or over compensatory charting about medications or incidents).

» Frequent revisions and/or discrepancies on narcotic records.

» Inconsistencies in records of medications administered. between narcotic records and clients' charts.

Diversionary Indicators

» Performing narcotic counts alone.

» Pampering with packages or vials.

» Using fictional client names on narcotic records.

» Failing to have narcotic wastage observed and/or co-signed.

» Waiting to open narcotic cupboard and/or draw up medications when alone.

» Frequently reporting lost or wasted medications.

» Frequently volunteering to medicate colleagues' clients for pain, even offering to cover colleagues' breaks when their clients require pain medications.

» Requesting to be assigned to clients who receive large amounts of pain medication.

» Excessively administering medications to clients that should only be taken as needed (e.g. pain medication); while clients report ineffective pain relief.

In addition to these indicators, EAPs are often able to provide aggregate data that will indicate the extent to which workers seek assistance for substance abuse issues.

Controls for workplace substance abuse

The most effective control of workplace substance abuse is its prevention. In the hazard assessment process, specific stressors are identified that may lead to a variety of behaviours, including substance abuse. To minimize the impact of excessive stress on workers, administrative control efforts to modify the following factors should be considered based on the job specific hazard assessment.[73] Further detailed suggestions related to each of these controls are provided in the referenced document.

- Increase workers' autonomy or control.
- Increase training to increase worker skill levels.
- Increase mechanisms for social support.
- Improve working conditions.
- Make healthy use of technology.
- Provide a reasonable level of job demands.
- Provide job security and career development.
- Provide healthy work schedules.
- Improve personal strategies for workers.

To specifically address substance abuse in the workplace, administrative efforts should include:

- Increase awareness of substance abuse facts, issues and effects for workers and managers.
- Involve workers in the development of a substance abuse policy.
- Reduce the opportunities for workers to divert client drugs.
- Provide a counselling service (EAP, etc.) for workers.
- Encourage a rehabilitation approach to dealing with substance abuse issues.
- Provide effective disability management and return to work programs.

73 Cahill, J., Landsbergis, P.A., & Schnall, P.L. (1995). *Reducing Occupational Stress.* Job Stress Network Presentation. Retrieved from **www.workhealth.org/prevention/prred.html.**

Depression, Anxiety, Sleep Disorders, and Other Mental Illness

A Health Canada article on depression, (It's Your Health – Depression)[74] identified that 11% of men and 16% of women in Canada will experience major depression in the course of their lives. While depression is a personal condition, there are many workplace ramifications associated with depression. In a Statistics Canada Health Report[75], results of a Canadian Community Health Survey indicated that, "men and women with jobs high in psychological demands, but with limited ability to use skills and authority to address these demands, had significantly higher rates of depression. The same was true for workers who felt a lack of support from their co-workers and supervisors, as well as workers who generally perceived high levels of day to day stress."

Workplaces may contribute to the development of depression when workplace stress is excessive and individual tolerances are exceeded. In the Healthcare Quarterly[76], Annalee Yassi and Tina Hancock state that "Healthcare workers have a high risk of workplace injuries and more mental health problems than most other occupational groups. Many healthcare professionals feel fatigued, stressed, in pain, or at risk of illness or injury – factors they feel impede their ability to provide consistent quality care." A study[77] of medication errors made by medical residents in several children's hospitals in the US found that depressed residents made 6.2 times as many medication errors per resident-month as residents who were not depressed. A Japanese study[78] found that in four types of medical errors (drug-administration error, incorrect operation of medical equipment, errors in client identification, and needlestick injuries), the percentage of those who made the errors was significantly higher for the "mentally in poor health" group than for the "mentally in good health" group (as assessed by a questionnaire).

74 Health Canada, in collaboration with the Public Health Agency of Canada. (February 2009). *It's Your Health – Depression.* Catalogue #H13-7/46-2008E-PDF. Retrieved from **www.hc-sc.gc.ca/hl-vs/iyh-vsv/diseases-maladies/depression-eng.php.**

75 Shields, M. (2006). "Stress and depression in the employed population." *Health Reports:* 17(4), 11-29. Retrieved from **www.statcan.gc.ca/studies-etudes/82-003/archive/2006/9495-eng.pdf.**

76 Yassi, A., & Hancock, T. (2005). "Patient Safety – Worker Safety: Building a Culture of Safety to Improve Healthcare Worker and Patient Well-Being." *Healthcare Quarterly:* 8 (Special Issue), 32-39.

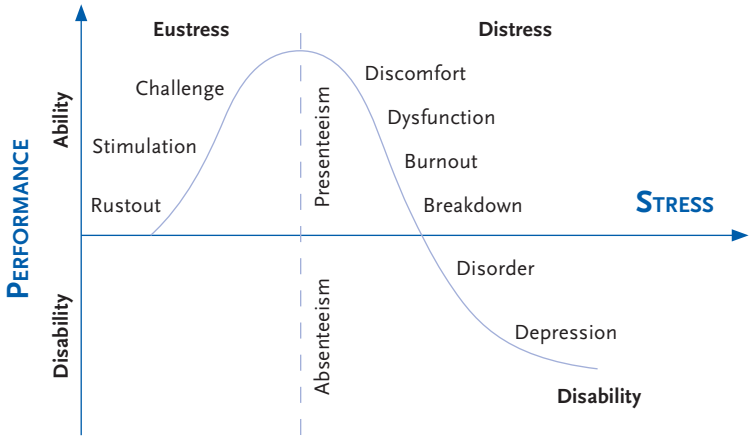
77 Fahrenkopf, A.M., et al. (2008). "Rates of medication errors among depressed and burnt out residents: prospective cohort study." *British Medical Journal:* 336(7642), 488-491.

78 Suzuki, K., et al. (2004). "Mental Health Status, Shift Work, and Occupational Accidents among Hospital Nurses in Japan." *J Occup Health:* 46(6), 448-454.

Impacts of depression on workplaces

One of the key indicators of depression is declining work performance. Early recognition of distress enables a timely response to reduce the likelihood of a major depressive incident. The following diagram portrays the development of disability as it relates to stress.

Occupational Implications of Depression[79]



Depression, anxiety, sleep disorders, and other mental illness may be medical manifestations of excessive stress. The stressors may be organizational or personal. Organizational stressors have been described earlier in this document and efforts to reduce or eliminate excessive workplace stressors will reduce the risk of workplace-associated depression.

Assessing the hazard of depression in the workplace

As with other personal conditions, the hazards associated with depression should be considered from the perspective of workplace factors that may lead to or exacerbate depression, and also from the perspective of impacts on the workplace posed by depressed workers. In healthcare, this is particularly vital, as client safety may be impacted by the mental health of HCWs.

In the first case, excessive workplace stressors may contribute to depression. Work organizational factors can contribute to excessive stress. A list of common work organizational factors has been presented earlier (see pages 26-27). Each of these should be reviewed in the context of its presence in the workplace and strategies to modify those factors should be provided to reduce or eliminate the hazards.

Second, to reduce the impact of depression in the workplace, early identification of depression and workforce awareness of the signs and symptoms of depression are important.

79 Bilsker, D., Gilbert, M., Myette, T.L., & Stewart-Patterson, C. (no date). "Depression & Work Function: Bridging the Gap Between Mental Health Care & the Workplace." Consortium for Organizational Mental Healthcare. Retrieved from **www.comh.ca/publications/resources/dwf/Work_Depression.pdf.**

Organizational and personal risk assessments can assist in prevention and health promotion efforts. Awareness of stressors that may be excessive as well as awareness of early signs and symptoms of depression may lead workers to obtain assistance and treatment earlier. Promoting the discussion about mental health at work will enable co-workers to assist in recognizing early signs of depression and will also reduce the stigma associated with reporting mental health issues.

According to the Public Health Agency of Canada[80], having five or more of the following symptoms may indicate depression:

- □ Feelings of sadness and loss.
- □ Feelings of guilt and worthlessness.
- □ Feelings of extreme impatience, irritability, or a short temper.
- □ Loss of interest or pleasure in usually-enjoyed activities.
- □ Changes in weight or appetite.
- □ Changes in sleeping patterns like insomnia.
- □ Reduced ability to think clearly or make decisions.
- □ Difficulties in concentrating or with short term memory loss.
- □ Constantly feeling tired.
- □ Noticeable lack of motivation.
- □ Anxiety and restlessness, sometimes leading to panic attacks.
- □ Muscle and joint pain.
- □ Constipation or other intestinal problems.
- □ Frequent headaches.
- □ Lack of interest in sex.
- □ Recurring thoughts of suicide or self-harm.
- □ Withdrawal from friends and family.

Checklist

80 Public Health Agency of Canada. (2009). "What is Depression?" Retrieved from **www.phac-aspc.gc.ca/cd-mc/mi-mm/depression-eng.php.** This copy is a reproduction of part of an official work published by the Government of Canada and has not been produced in affiliation with or endorsement of the Government of Canada.

A variety of situations can trigger depression.[81] Among them are:

- **Stress directly related to the workplace:**
  - Job insecurity.
  - Overwork.
  - Unclear job expectations.
  - Dangerous physical environment.
  - Unpleasant work area (e.g. high noise, little privacy).
- **Major life events:**
  - Death of a loved one.
  - Job loss.
  - Positive changes associated with a new level of challenge, such as a promotion or new job.
  - Divorce/separation.
- **Lack of contact with other people:**
  - Feeling cut off from or rejected by coworkers.
- **Relationship conflict:**
  - Ongoing or severe conflict in relationships (e.g. with a family member, work colleague, supervisor or customer).
  - Bullying/abuse.
- **Stress related to physical health:**
  - Physical health problems – especially health problems that are chronic or cause considerable pain.
- **Work–life imbalance:**
  - The demands of home and work are competing and exceed your ability to keep them balanced.

Work settings more likely to trigger low mood are those where workers experience:

- High workload with low control over the workflow.
- Little social support from colleagues or supervisors.
- Perceived unfairness in providing rewards and recognition for one's efforts.

Workers in these kinds of workplaces are more likely to feel demoralization, resentment and reduced engagement. They are at higher risk for mood problems.

81 Bilsker, D., Gilbert, M., & Samra, J. (2007). "Antidepressant Skills at Work: Dealing with Mood Problems in the Workplace." Consortium for Organizational Mental Healthcare. Retrieved from **www.comh.ca/antidepressant-skills/work/workbook/index.cfm.** Used with permission.

Controls for depression, anxiety, sleep disorders, and other mental illness in the workplace

The most effective ways to reduce depression, anxiety, sleep disorders, or other mental illness in the workplace include:

- Prevention strategies aimed at workplace organizational factors and design considerations.
- A focus on a healthy work-life balance.
- Increased awareness of causes, signs and symptoms of depression, anxiety, sleep disorders, other mental illness.
- Early diagnosis and treatment of depression, anxiety, sleep disorders, and other mental illness.
- Support services and programs available for workers (EAPs often offer training for managers and workers to learn to recognize symptoms and offer appropriate individual or group intervention).
- Benefit plan provisions.
- Effective return to work programs.

Managing depression in the workplace[82]

Management of depression in the workplace must begin with the workplace rather than the healthcare system. With regard to depression management, neglecting the workplace may result in:

- *Failure to control or eliminate risk factors, such as conflict with co-workers or supervisors or lack of perceived control over workload, which may initiate or compound depression as well as increase the likelihood of depression relapse.*
- *Delivery of treatments that ignore the depressed person's relationship to the workplace and thus worsen the disability state. This can include recommendations of "stress leave" without concurrent provision of strategies to maintain or build resilience and coping skills. This can readily result in demoralization, inactivity, and loss of engagement with coworkers.*
- *Poor communication between healthcare providers, disability managers, and the workplace, resulting in limited understanding of the depressed worker's status and delayed or inadequate consideration of appropriate return-to-work strategies.*

82 Bilsker, D., Gilbert, M., & Samra, J. (2007). "Antidepressant Skills at Work: Dealing with Mood Problems in the Workplace." Consortium for Organizational Mental Healthcare. Retrieved from **www.comh.ca/antidepressant-skills/work/workbook/index.cfm.** Used with permission.

Age-Related Factors

The Canadian work force is aging. Key drivers behind this demographic shift include the aging of the baby boomer generation, lower birth rates, and greater participation of older workers in the workforce. There is evidence that the labour force participation of older workers will continue to grow based on three factors: the baby boomers' strong attachment to the labour market; rising levels of education (particularly among women); and an apparent desire or need of people over 55 to continue working.[83] Another trend is the greater participation of women over age 55 in the labour market in Canada.

According to a Statistics Canada article[84] on the participation of older workers, there is a shift for older workers to non-standard work arrangements such as self-employment and part time work, which may be an indication of a conscious transition towards retirement. Two-thirds of older part time workers reported working a shorter work week as a preference in comparison to only one quarter of workers age 25-54 who worked part time.

The chronological aging process starts at birth and ends at death. The definition of an aging worker is generally based on the period when major changes occur in relevant work related functions. Commonly, the age range of 45-50 has been used as the base criterion for the term "aging worker."[85]

Age-related changes

Age-related changes vary greatly by individual and there is more variation within age groups than between them. Aging[86] is a dynamic and differentiated process of change in which some functions may decline as other skills develop. Overall, aging is associated with a general decline of health and the onset of activity limitations for many individuals. It should be noted that the aging process is highly individual and affected by a variety of factors. Changes occur in body systems as a result of the aging process that impact the musculoskeletal system, sensory and motor processes, cardiovascular and respiratory system, vision, hearing, and mental processes. It is critical to note that function cannot be generalized based on age alone.

83 Statistics Canada. (August 24, 2007). "Study: Participation of older workers." Retrieved from **www.statcan.gc.ca/daily-quotidien/070824/dq070824a-eng.htm.**

84 Marshall, K., and Ferrao, V. (2007). "Participation of Older Workers." Perspectives on Labour and Income: 8(8), 5-11. Retrieved from **www.statcan.gc.ca/pub/75-001-x/75-001-x2007108-eng.pdf.**

85 Ilmarinen, J.E. (2001). "Aging Workers." *Occupational and Environmental Medicine:* 58(8), 546-552.

86 European Agency for Safety and Health at Work. (2007). "Expert forecast on emerging psychosocial risks related to occupational safety and health." Publication. Retrieved from **www.osha.europa.eu/en/publications/reports/7807118.**

Physical and psychological changes related to the aging process may create psychological stressors in the workplace. Age-related changes also include increased abilities that positively impact the work environment. Examples of abilities that may increase through the aging process include experience, autonomy, competence, reliability, and sense of responsibility.

The following age-related changes may occur in varying degrees to individual workers:

- Physical strength may decrease.
- Reaction time and response time may increase in decision making.
- There is less tolerance to hot environments.
- There may be hearing loss.
- Vision may deteriorate.
- Mental processes may decline slightly.
- Health status may deteriorate and chronic conditions may increase.
- Changes in sleep may result in less tolerance for shift work.

According to a Statistics Canada report, aging workers may feel an increased need for work-life balance as a result of a number of factors including the following:[87]

- Personal health problems.
- Declining physical capabilities and energy levels.
- Stress due to rapid changes in technology.
- Family care responsibilities (supporting elderly family members).

87 Human Resources and Skills Development Canada. (July 2007). "Overview of the Aging Workforce Challenges: Analysis." Retrieved from **www.hrsdc.gc.ca/eng/lp/spila/wlb/aw/09overview_analysis.shtml.**

Controls related to accommodation of an aging workforce

The following chart summarizes some of the engineering and administrative controls that can be put in place to accommodate aging workers as well as being good practices in general for all workers.

Age-Related Changes	Workplace Controls
Musculoskeletal System	» Provide mechanical devices and power equipment for lifting/moving. » Minimize lifting demands through workstation design – storing objects at appropriate heights, packing in smaller quantities or containers. » Provide supportive, adjustable seating and workstations. » Employ good ergonomics in workplace design and equipment purchasing. » Minimize the risk of slips, trips and falls by reducing housekeeping hazards, climbing and working at heights. » Offer exercise and stretching programs.
Sensory and Motor Processes	» Reduce multi-tasking. » Provide opportunities to practice and reinforce tasks.
Cardiovascular and Respiratory System	» Plan and assign work to avoid fatigue. » Design work to prevent workers from working at their maximum capacity (e.g. provide lifting devices). » Provide adequate heating and air conditioning to minimize thermal extremes.
Hearing	» Reduce general workplace noise. » Provide cell phones and pagers that incorporate vibration. » Speak clearly and choose a quiet environment to communicate key information.
Vision	» Design lighting to suit the task.
Mental Processes	» Reduce multi-tasking. » Increase time between steps of a task. » Reinforce tasks and skills through repetition, drills and refresher training.
General Administrative Controls[88]	» Ensure no age discrimination is fostered by human resources policies and practices (e.g. recruitment policies, mandatory retirement policies, etc.). » Address negative attitudes about aging. » Utilize aging workers as trainers/mentors. » Offer flexible work arrangements; consider options such as flexible hours, job sharing, part time work, working from home, self funded leaves, phased in retirement, etc. » Examine work organization and consider changes in job design.

88 Human Resources and Skills Development Canada. (July 2007). "Overview of the Aging Workforce Challenges: Analysis." Retrieved from **www.hrsdc.gc.ca/eng/lp/spila/wlb/aw/09overview_analysis.shtml.**

Personal control factors

The aging process is highly individual and may be impacted by a variety of lifestyle and behavioural factors. Healthy lifestyle choices can slow down the aging process, but cannot reverse it. Aging workers can optimize their health and functional capacities by maintaining a healthy lifestyle including:

- Controlling weight.
- Maintaining a healthy diet.
- Exercising (particularly weight bearing exercises).
- Not smoking.
- Avoiding substance abuse.

Aging workers should also:

- Have vision and hearing tested regularly.
- Use corrective lenses and hearing aids, as necessary.
- Be aware of the potential side effects of medications.
- Challenge the brain through hobbies, reading and other mentally stimulating activities.

Intergenerational communication

With many older workers putting off retirement and remaining in the workforce, four generations of workers can be found in most healthcare organizations. Depending upon societal factors, events, and technology; these generations may differ in attitudes, beliefs, behaviours, motivations, knowledge, and values. The four generations are known by several different names. They are summarized in the following table:

Year of birth	1922-1945	1946-1964	1965-1980	1981-2000
Name	Veterans, Silent, Traditionalists, Matures	Baby Boomers, Me Generation	Generation X Slacker Generation Gen Xers	Generation Y Echo Boomers Generation Next Millennials

The following chart[89] compares workplace characteristics of each generation.

Workplace Characteristics				
	Veterans (1922–1945)	**Baby Boomers (1946–1964)**	**Generation X (1965–1980)**	**Generation Y (1981–2000)**
Work Ethic and Values	» Hard Work » Respect authority » Sacrifice » Duty before fun » Adhere to rules	» Workaholics » Work efficiently » Crusading causes » Personal fulfillment » Desire quality » Question authority	» Eliminate the task » Self-reliance » Want structure and direction » Skeptical	» What's next » Multitasking » Tenacity » Entrepreneurial » Tolerant » Goal oriented
Work is...	» An obligation	» An exciting adventure	» A difficult challenge » A contract	» A means to an end » Fulfillment
Leadership Style	» Directive » Command-and-control	» Consensual » Collegial	» Everyone is the same » Challenge others » Ask why	» TBD*
Interactive Style	» Individual	» Team player » Loves to have meetings	» Entrepreneur	» Participative
Communications	» Formal » Memo	» In person	» Direct » Immediate	» E-mail » Voice mail
Feedback and Rewards	» No news is good news » Satisfaction in a job well done	» Don't appreciate it » Money » Title recognition	» Sorry to interrupt, but how am I doing? » Freedom is the best reward	» Whenever I want it, at the push of a button » Meaningful work
Messages That Motivate	» Your experience is respected	» You are valued » You are needed	» Do it your way » Forget the rules	» You will work with other bright, creative people
Work and Family Life	» Ne'er the twain shall meet	» No balance » Work to live	» Balance	» Balance
*** As this group has not spent much time in the workforce, this characteristic has yet to be determined**				

89 Hammil, G. (2005). "Mixing and Managing Four Generations of Workers." *FDU Magazine Online:* Fairleigh Dickenson University, Winter/Spring 2005. Retrieved from **www.fdu.edu/newspubs/magazine/05ws/generations.htm.**

While these characteristics are general and there are many individuals in each generational group to whom some of these characteristics do not apply, the differences in experiences, attitudes and values are sometimes significant factors in workplace communications. Being aware of generational differences can help workers establish good communications and reduce stress associated with intergenerational communications. According to an article in the Employee Assistance Program Newsletter[90] available on the Health Canada website, strategies to reduce stress associated with intergenerational communication include:

- Be polite and business-like. Avoid sarcasm, put-downs, or arrogance. Speak with respect to others.
- Empathize, don't antagonize. Let the other person know you have heard what was said and the feelings expressed. It does not mean you agree, but shows that you are open to communication.
- Take a step back and be detached. Reality is distorted when emotions run high.
- Stick to the facts, don't attack. When providing feedback, remain factual. This will ensure mutual and constructive participation.

Work-Life Conflict, Including Reactions to Excessive Workload

Individuals fulfill a variety of roles throughout their lives and strive to achieve a balance between these different roles and responsibilities. Reconciling work and family commitments is an ongoing challenge for many workers particularly in the context of a changing family paradigm, such as including two income families, working single parents, and increasing eldercare responsibilities. In addition to family responsibilities, workers strive to achieve a balance with other important aspects of their lives including volunteer commitments, educational, leisure, or health pursuits. Work-life conflict occurs when the demands of the many roles become incompatible with each other and fulfilling one role may result in difficulty fulfilling other roles. We will examine three categories of work-life conflict including role overload (having too much to do), work to family interference (where work interferes with family), and caregiver strain.

90 Health Canada. (2009). "Employee Assistance Program Newsletter." Employee Assistance Program Newsletter: 17(2). Retrieved from **www.hc-sc.gc.ca/ewh-semt/occup-travail/empl/_news/17-02-eng.php.**

Scope of issue

According to a Canadian paper written by Linda Duxbury and Chris Higgins[91], work-life conflict increased markedly during the 1990s. Role overload showed the greatest increase as reported from a survey of Canadian workers. The reasons for the increase in work-life conflict include the following:

- Greater proportion of workers experience difficulties balancing their role of worker, parent, spouse, eldercare provider, etc.
- Workers have become more stressed.
- Physical and mental health has declined.
- Jobs have become more stressful and less satisfying.
- Workers are less committed to their employer.
- Workers are more likely to be absent from work due to ill health.
- Workers are spending more time at work, often extending their work day.
- Technology has blurred the boundaries between work and family time.

The problem is also recognized in all developed countries including Europe where the focus is on work-life conflict in the context of globalization and rapid technological changes, an aging population and concerns over labour market participation and falling fertility levels.

Role Overload

Role overload is a type of work-life conflict consisting of having too much to do in a given amount of time. A paper written by Linda Duxbury and Chris Higgins[92] identified that "high levels of role overload have become systemic within the population of workers working for Canada's largest employers." Of the workers in the research sample, 58% reported high levels of role overload and another 30% reported moderate levels. Research supports that the prevalence of high role overload had increased over the decade from 1991 – 2001. Factors that were identified as related to the increase in role overload included the following:

- Increased work time (one in four workers worked 50 or more hours per week).
- New information and communications technology (cell phones, laptops, email).
- Organizational norms that reward long work hours rather than performance.
- Downsizing.

91 Duxbury, L., and Higgins, C. (2001). "Work-Life Balance in the New Millennium: Where Are We? Where Do We Need to Go?" Canadian Policy Research Networks: Discussion Paper W(12). Retrieved from **www.juliajames.ca/resources/work_life_balance_lduxbury.pdf.**

92 Duxbury, L., and Higgins, C. (2003). "Work-Life Conflict in Canada in the New Millennium: A Status Report." Public Health Agency of Canada, Final Report. Retrieved from **www.phac-aspc.gc.ca/publicat/work-travail/report2/index-eng.php.**

In an HSAA survey[93] conducted in 2006, more than 77% of workers indicated they had difficulty keeping up with the workload either sometimes, often or very often. For these, the major factors contributing to the difficulty included staff shortages, increased work expectations of employers, and increased complexity of work. The survey also indicated that 37% of the respondents perceived that most days at work were quite a bit or extremely stressful. Shift work has also been shown to have an association with role overload. A Statistics Canada survey[94] conducted in 2005 examined the work-life balance and role overload of shift workers and found that 31% of shift workers complained of role overload compared with 27% of regular day workers. In addition, long work hours were associated with role overload. Shift workers were more likely to report that they cut back on sleep, spent less time with their spouse and worried about not spending enough time with family, in comparison to regular day workers.

Impact on Home Life

Work to family interference happens when work demands and responsibilities make it more difficult for a worker to fulfill family responsibilities. The research by Duxbury and Higgins suggests that work to family interference is a significant problem for 25% of Canadians working for larger employers. Almost 40% of the study sample reported moderate levels of work to family interference.

Caregiver Strain

A caregiver is considered anyone with responsibilities to provide assistance to a disabled or elderly dependant. Caregiver strain refers to the changes in caregivers' day-to-day lives which can be attributed to the responsibility to provide care for the dependent. The "sandwich generation" refers to individuals who provide care to children as well as elderly dependents. This group consists of a larger proportion of woman who face greater strain as they persistently take on the majority of childcare and eldercare responsibilities within two-parent households. There are four recognized types of caregiver strain including emotional (e.g. depression, anxiety, emotional exhaustion), physical, financial, and family strain. According to the analysis by Duxbury and Higgins, one in four working Canadians report high levels of caregiver strain.

93 Health Sciences Association of Alberta. (2006). "HSAA Survey Questionnaire."Retrieved from **www.hsaa.ca/ohs/work_life_balance_survey.**

94 Statistics Canada. (August 2008). "Work-life balance of shift workers." *Perspectives on Labour and Income:* 9(8), 5-16.

Did you know?

According to a study by Duxbury and Higgins[95], caregiver strain is a significant and growing issue for Canadian workers.

- Greater than 1 in 4 employed Canadians provide eldercare.
- Approximately 17% of employed Canadians belong to the sandwich generation and are simultaneously responsible for childcare and eldercare.
- 1 in 4 employed Canadians report high levels of caregiver strain.

Effects of work-life conflict

Focus

Impact of Work-Life Conflict

Studies support that work-life conflict has a significant impact on Canadian workers and organizations. The consequences of work-life conflict include the following:[96]

- Increased absenteeism.
- Increased worker turnover.
- Reduced productivity.
- Increased disability costs.
- Increased health costs.
- Reduced job satisfaction.
- Increased managerial stress.
- Impaired family/social relationships.

Evaluation of work-life conflict

Work-life conflict has been measured in a variety of ways including "objective" indicators and "subjective" indicators. Objective indicators used by researchers include part-time work, number of paid work hours, and paid and unpaid work hours.

95 Duxbury, L., and Higgins, C. (2003). "Work-Life Conflict in Canada in the New Millennium: A Status Report." Public Health Agency of Canada, Final Report. Retrieved from **www.phac-aspc.gc.ca/publicat/work-travail/report2/index-eng.php.**

96 Government of Alberta. (2004). "Better Balance, Better Business: Options for Work-Life Issues." Retrieved from **www.alis.alberta.ca/pdf/cshop/betterbalance.pdf.**

Subjective measures of work-life conflict focus on the individual and take into account individual differences associated with resources, energy, motivations and expectations. A variety of research papers utilized work-life conflict indicators incorporating combinations of questions such as the following:

- How often do you keep worrying about work problems when you are not working?
- How often do you feel too tired after work to enjoy the things you would like to do at home?
- How often do you find that your job prevents you from giving the time you want to your partner or family?
- How often do you find that your partner or family gets fed up with the pressure of your job?
- Do your working hours fit in with your family or social commitments outside of work?
- How often do you find it difficult to concentrate on work because of your family?

Controls related to work-life conflict and excessive workloads

Administrative Controls

An employer should strive to develop policies and programs that support work-life balance. The following is a list of general work-life balance policies and programs to consider:

- Flexible time arrangements including alternative work schedules, compressed work week, voluntary reduced hours/part-time work and phased in retirement.
- Flexible work locations through the use of technology such as telecommuting and satellite offices.
- Flexible job design through job redesign, job sharing.
- Wellness programs.
- Flexible benefits including paid and unpaid leaves for maternity, parental care giving, educational and sabbatical leaves.
- Employer sponsored childcare and eldercare practice and referral services.

A work-life conflict issue recognized in healthcare is often brought on by workload and work demands. Some strategies to reduce the impact of increased workload and work demands include the following:

- Identify methods to reduce worker workloads. According to research, special attention is required for managers and professionals.
- Track the costs associated with understaffing and overwork (paid and unpaid overtime, increased turnover, employee assistance program use, increased absenteeism).
- Strive to reduce the amount of time workers spend in job-related travel.
- Reduce reliance on paid and unpaid overtime.
- Consider a "time in lieu" system to compensate for overtime.
- Develop norms regarding the use of technology (e.g. cell phones, PDA, laptops, email) outside of work time.
- Allow workers to say "no" to overtime without repercussions.
- Provide a limited number of days of paid leave per year for caregiver responsibilities (childcare and eldercare) and personal problems.
- Measure the use of work-life practices (e.g. job sharing, compressed work week, etc.) and reward sections of the organization with high usage. Investigate sections where usage is low.
- Increase supportive management. Specifically, organizations should increase the extent to which managers are effective at planning the work to be done, make themselves available to answer worker questions, set clear expectations, listen to worker concerns and give recognition for a job well done.

Ultimately, the goal is for organizations to develop a culture that supports work-life balance. Not all specific strategies can be used in all organizations. Tools are available to evaluate the current status of work-life balance of an organization and to develop an approach to reduce work-life conflict. One such tool, the Work-Life Continuum[97] was developed by Nora Spinks of Work-Life Enterprises and is presented on the Human Resources and Skills Development Canada website.

97 Spinks, N. (2005). "Work-Life Continuum." Human Resources and Skills Development Canada, Labour Law Article. Retrieved from **www.hrsdc.gc.ca/eng/lp/spila/wlb/imt/11worklife_continuum.shtml#2.**

Another useful tool developed by Human Resources and Skills Development Canada[98] is a series of three checklists that an organization can use to evaluate its progress in the development of work-life balance practices.

Attitudes and Culture Checklist

- □ Managers encourage workers to stay home with children or elderly parents in the event of a medical emergency or when their usual care arrangements are unavailable.
- □ Managers are conscious of the need to help workers manage their workloads in a way which enables them to participate fully in their personal lives.
- □ Managers are flexible around hours of work in order to assist workers in balancing their work and home activities.
- □ Managers in our organization are supportive of work-life balance - demonstrated either by "walking-the-talk" or by encouraging workers to take advantage of work-life balance policies.
- □ One of the criteria for promotion or hiring into management positions is a solid understanding of the importance of, and commitment to, work-life balance initiatives both for the prospective manager and for his/her workers.
- □ Our organization has developed metrics and measurements to hold individuals and managers accountable for creating supportive work environments.

Programs Checklist

- □ Our organization has conducted surveys and/or focus groups with workers to learn about their work-life balance needs and desires.
- □ Our organization has a formal work-life balance policy or program in place.
- □ Our organization offers or plans to offer one or more of the following programs:
  - Dependent care initiatives (such as emergency child or elder care, referral and/or information services, financial assistance, or workplace child-care).
  - Stress management (such as an EAP or wellness/health promotion activities).

Continued on page 110.

Checklist

98 Human Resources and Skills Development Canada. (2005). "Checklist for Employers (Assessment and Planning)." Retrieved from **www.hrsdc.gc.ca/eng/lp/spila/wlb/imt/10checklist_employers.shtml.** This copy is a reproduction of part of an official work published by the Government of Canada and has not been produced in affiliation with or endorsement of the Government of Canada.

Continued from page 109.

- Flexible work arrangements (such as compressed workweek, flextime, or telework).
- Reduction in working time (such as job sharing, gradual retirement, or voluntary part-time).
- Vacation and other social benefits (such as flexible benefits, leave for personal reasons, maternity, paternity and/or parental leave, sick leave, or vacation flexibility).

Checklist

- □ Our organization has a process in place to monitor progress and usage of work-life balance programs.
- □ Work-life programs are linked to recruitment and retention strategies, business development goals and organizational development initiatives.
- □ Our organization participates in external work-life councils, committees or consortiums to benchmark progress and learn from other's experience.

Communication Checklist

- □ Workers are aware of their options when it comes to work-life programs or initiatives in our organization.
- □ Workers are provided with regular opportunities to express views about work, life and family balance.
- □ Managers have received appropriate training and possess the proper tools and skills that are necessary to implement organizational work-life balance policies.
- □ Our organization regularly reminds managers that work-life balance is important.
- □ Our organization publicizes work-life balance programs at all levels of the organization across all work locations.

Influence of Organizational Factors on the Effectiveness of Work-Life Balance Practices

Organizational factors have a significant impact on work-life conflict and the effectiveness of work-life balance practices. These key factors[99] impact workers' access to and use of work-life balance programs and include the following:

- An organizational culture that supports work-life balance practices.
- Perceived organizational support.
- Supervisor support.
- Co-worker support.
- Gender perceptions.

Personal Control Strategies

Workers should evaluate their relationship to work and consider specific strategies to create a healthy work-life balance. Some personal control strategies include the following:

- Keep a time log – Track the time spent in various activities for one week. Decide which activities are important and satisfying. Consider strategies to decrease time spent on less important activities.
- Be aware of and participate in work-life balance programs at work.
- Learn to say "no".
- Communicate clearly in order to reduce time-consuming misunderstandings.
- Identify and address sources of guilt.
- Strive to leave work issues at work.
- Identify strategies to reduce time spent in job-related travel (e.g. conference calls and video conferencing).
- Manage time effectively.
- Protect days off – schedule some routine chores on work days, if possible, so that days off from work are more relaxing.
- Get adequate sleep.
- Build your social support system.
- Seek professional help, if necessary.

99 Lero, D.S., Richardson, J., & Korabik, K. (2009). "Cost-Benefit Review of Work-Life Balance Practices – 2009." Canadian Association of Administrators of Labour Legislation. Retrieved from **www.caall-acalo.org/docs/Cost-Benefit Review.pdf.**

Resources

Alberta Health and Wellness; Healthy U – Healthy Workplaces; **www.healthyalberta.com/HealthyPlaces/283.htm**

Joan Burton, Industrial Accident Prevention Association; The Business Case for a Healthy Workplace; 2008; **www.iapa.ca/Main/documents/pdf/fd_business_case_healthy_workplace.pdf**

Public Health Agency of Canada; Stairway to Health; Feb. 26, 2007; **www.phac-aspc.gc.ca/sth-evs/english/index-eng.php**

The Health Communication Unit at the Centre for Health Promotion, University of Toronto; Comprehensive Workplace Health Promotion: Recommended and Promising Practices for Situational Assessment Tools; Version 1.02; March 6, 2006; **www.thcu.ca/workplace/sat/pubs/sat_v102.pdf**

The Health Communication Unit at the Centre for Health Promotion, University of Toronto; THCU Literature Search: Return on Investment for Workplace Health Promotion Programs; June 27, 2009; **www.thcu.ca/infoandresources/resource_display.cfm? resourceID=1248**

Healthy Workplaces

This section will address the implementation of a comprehensive workplace wellness program, incorporating and building on the concepts identified throughout this document.

In order to achieve a "healthy" workplace, it is imperative that three basic elements are in place: a safe and healthy physical work environment; a safe and healthy psychological work environment; and the promotion of healthy lifestyles among workers. The accomplishment of a healthy workplace is contingent on each element being addressed and effectively implemented and generally progresses from the first to last.

Creating a Healthy Workplace

1. PHYSICAL WORK ENVIRONMENT – The physical hazards in the work environment should be identified, evaluated and effectively controlled. These hazards are often identified in occupational health and safety legislative requirements. Examples include musculoskeletal injury hazards, biological hazards, slip/trip/fall hazards, chemical hazards, etc.

2. PSYCHOLOGICAL WORK ENVIRONMENT – Work organizational factors and workplace stressors should be identified, evaluated and controlled. Examples include hazards associated with workplace violence, abuse, work overload, fatigue, etc.

3. WORKPLACE WELLNESS – The promotion of healthy lifestyles among workers and the removal of barriers in the workplace. Examples of healthy lifestyle initiatives include physical activity, healthy diet, stress management, smoking cessation, etc.

Impacts of Workplace Wellness Programs

An effective wellness program can have positive impacts for the organization as well as workers. According to an article on the Alberta Health and Wellness – Healthy U website[100], organizations that have workplace wellness programs can benefit from:

» An increased ability to attract and retain workers.

» Increased productivity.

» Reduced costs associated with disability, drug usage and absenteeism.

» Reduced health costs.

» Improved morale.

100 Government of Alberta, Alberta Health and Wellness. (no date). "What is Workplace Wellness?" Retrieved from **www.healthyalberta.com/HealthyPlaces/205.htm.**

The concept of being "an employer of choice" is becoming more important as demographic shifts result in a shrinking workforce with changing expectations for the relationship between employer and worker. For example, the opportunity to retain aging workers may be enhanced through greater workplace flexibility and engagement of workers.

There are significant benefits of a workplace wellness program for workers including:

- Increased knowledge of ways to improve their health.
- A better (less stressful) workplace.
- Increased protection from injury.
- Improved health and well-being.
- Higher morale and greater job satisfaction.
- Increased productivity and effectiveness at work.

Focus

Positive Results from Statistics Canada[101]

Statistics Canada was awarded the Excellence Award for Workplace Health by the National Quality Institute in 2003. Statistics Canada instituted a wellness program that included the following initiatives:

- An in-house day care and fitness centre for use at a reduced rate.
- A free, confidential EAP for help with personal issues.
- Social clubs to promote camaraderie.
- Lunch and learn sessions with experts in different fields.
- A compressed work week for more family time.

Statistics Canada measured changes in key performance measures including 91% improvement in worker turnover, 57% decrease in injuries, 71% retention of workers and 78% satisfaction with balance at work and at home.

101 Swartz, M. "Canada's Healthy Workplace Week: Employee Well-Being Pays Off!" NQI Excellence Articles. **www.nqi.ca.**

Return on Investment

Research suggests that wellness programs can demonstrate a return on the investment.[102] This information is useful in developing a business case to consider implementing a workplace wellness program.

Implementation of a Workplace Wellness Program

The following guiding principles can be used to plan the steps of implementing a workplace wellness program.

102 Scott, L. (2007). "Is health promotion coming back in style?" *Ontario Occupational Health Nurses Journal:* 26(1), 18-19.

Workplace Wellness for Small Organizations[103]

There are many opportunities to improve health and wellness in small organizations with minimal resources, as long as there is support from committed management and workers. Key strategies include:

Communications and Promotion

» Distribute regular "wellness" information (newsletter or email) or simple health tips.

» Use health promotions that already exist in the community from not for profit organizations and government agencies.

Active Living and Healthy Eating

Focus

» Focus on key health promotion activities such as active living and healthy eating to make a real impact on worker health.

» Encourage workers to participate in an active lifestyle including the "Stairway to Health" program.

» Distribute pedometers for workers to track their steps.

» Install secure bike parking.

» Serve healthy alternatives at company meetings and lunches.

Policy and Organizational Initiatives

» Develop policies to support work-life balance.

» Consider hiring an ergonomics specialist to assess workstations.

» Provide a wellness subsidy for a variety of health promotion activities.

103 Government of Alberta, Alberta Health and Wellness. (no date). "Workplace Wellness: Small vs. Big Business Options." Retrieved from **www.healthyalberta.com/HealthyPlaces/206.htm.**

Risk Assessment Tools

A wide variety of risk assessment tools are available for organizations to assess wellness status at the individual or organizational level. The tools are thoroughly summarized and evaluated in a document from the University of Toronto's Centre for Health Promotion – The Health Communication Unit (THCU).[104] Workplace wellness risk assessment tools include the following general categories; needs assessments, health risk appraisals, workplace environment audits, worker interest surveys, current practice surveys, and organizational culture surveys.[105] Some of the tools are available at no cost and others are proprietary and available for a fee.

Components of a Workplace Wellness Program

Common elements of effective workplace wellness programs include the following:

- Employee assistance program.
- Disease management programs.
- Fitness and physical activity programs.
- Health risk assessments.
- Work site healthcare programs.
- Personal wellness profiles.
- Preventive health screening and biometric testing and immunizations.
- Smoking cessation programs.
- Telephonic worker wellness programs.
- Weight management/weight loss programs.
- Self-care programs.
- Work–life balance initiatives.
- Education programs at the work site.

Many organizations start slowly by picking wellness initiatives that best suit their work environment, worker demographics and worker interests. The initiatives are evaluated and further programs may be planned. In many cases, significant changes can be made to impact workplace wellness with minimal investment. Examples include increased management support for workers and engaging workers in decision making processes.

104 The Health Communication Unit at the Centre for Health Promotion. (March 2006). "Comprehensive Workplace Health Promotion: Recommended and Promising Practices for Situational Assessment Tools." University of Toronto: Version 1.02. Retrieved from **www.thcu.ca/workplace/sat/pubs/sat_v102.pdf.**

105 Burton, J. (2008). "The Business Case for a Healthy Workplace." Industrial Accident Prevention Association. Retrieved from **www.iapa.ca/pdf/fd_business_case_healthy_workplace.pdf.**

Checklist

Does Your Workplace Encourage Healthy Lifestyles?[106]

- □ In the vision and/or mission statement of your company, is there some mention of the importance of workers' health?
- □ In your company's health and safety policy, are workers encouraged to adopt a safe and healthy lifestyle both on and off the job?
- □ Does your company ever hold awareness sessions or "Lunch & Learn" talks on personal health-related topics?
- □ Does your company have policies regarding flexibility of working hours to accommodate people who would like to exercise before, after, or during work hours?
- □ Does your company provide any kind of financial assistance to help workers get more exercise?
- □ Does your company have a cafeteria that serves healthy choices of food?
- □ When your company provides refreshments or lunch for a meeting, are healthy choices provided?
- □ Does your company encourage workers to take a real lunch break, away from their desks?
- □ Does your company cover the cost of smoking cessation drugs, both prescription and non-prescription?
- □ Does your company provide defensive driving, or collision avoidance and control training for workers who drive for work?
- □ Does your company offer flu shots or other health screening tests on-site and free of charge to workers?
- □ Does your company offer stress-management training for workers?

106 Industrial Accident Prevention Association. (2007). "Healthy Workplaces: Does Your Workplace Encourage Healthy Lifestyles?" Retrieved from **www.iapa.ca/pdf/hwp_healthy_lifestyles.pdf.** Used with permission.

Section 6

Practices for the Control of Psychological Hazards by Functional Areas

Section 6: Practices for the Control of Psychological Hazards by Functional Areas

Each organization should systematically conduct hazard assessments for tasks performed by HCWs and identify if and where the potential exists for psychological hazards. In this section, examples are provided of psychological hazards that may be encountered in any functional area of healthcare, and possible control measures will be suggested. Employers should carefully evaluate the potential for exposure to hazards in all areas and ensure that they have an effective hazard control plan in place. This information will be useful to include into hazard assessments. When considering psychological hazards that workers may be exposed to, some workers who travel between sites, workplaces, or work in community settings may be potentially exposed to a variety of psychological hazards that are present in the areas in which they work. These psychological hazards should be included in the hazard assessment performed for these workers. Please note, this is not designed to be an exhaustive treatment of the subject, but is rather an overview summarizing some of the reported psychological hazards in healthcare settings.

General Notes:

The following charts provide basic information about control strategies for commonly occurring psychological hazards. The selection of controls should be based on a risk assessment of the tasks and environment. Worker tolerance to stressors varies considerably. Most controls listed here relate to organizational controls, with some mention of personal controls that may be useful in controlling risk. Worker education and good communication processes are critical administrative controls. All legislation related to the assessment of hazards, selection and use of controls should be followed.

All Functional Areas

Potential Psychological Hazards or Effects of Workplace Stressors	Summary of Major Control Strategies		
	Engineering	**Administrative**	**Personal**
Stress related to work-life conflict and workload issues.		Management policies and procedures that support work-life balance (e.g. voluntary reduced hours, voluntary part-time work, phased in retirement, telecommuting, job sharing, paid and unpaid leaves, dependent care initiatives, etc.). Work designed to address workload and work demands issues. Reliance on paid and unpaid overtime is reduced. Supportive management culture. Work-life balance policies are communicated to workers. The use and impact of work-life balance policies is measured.	Time log used to track time. Work-life balance programs are utilized. Work activities are isolated from home time. Time is effectively managed. Days off are protected. Appropriate sleep habits. Social support system is in place.
Abuse by clients, families, or visitors.	Isolation areas for agitated clients. Windows on doors of interview rooms. Furniture arrangement to prevent workers' entrapment. Enclosures for nursing stations. Lockable washrooms for workers separate from client or visitors. Controlled access. Grating or bars on street level windows. Bright lighting in parking lots. Metal detectors in psychiatric facilities and emergency rooms. Alarm systems and panic buttons. Video surveillance. Bullet-resistant glass in emergency room triage areas. Communication devices for emergency contact for home care or community workers. Hand-held alarm devices.	Management policies and procedures related to room checks, use of restraints, monitoring of high risk clients, no tolerance of violence or abuse. Client treatment plans that prevent violent behaviour from escalating. Worker education in violence awareness, avoidance and de-escalation procedures. Well-trained security guards. Escort to parking lots. Appropriate staffing levels based on client acuity and activity. Communication protocols to advise workers of client status. Liaison and response protocols with local police. Policies related to control of keys. Working alone policies. Reporting procedures for incidents and near misses. Use of nametags. Procedures for the safe handling of money and drugs.	Ability to request support. Use of counselling services.

Potential Psychological Hazards or Effects of Workplace Stressors	Summary of Major Control Strategies		
	Engineering	**Administrative**	**Personal**
Abuse by co-workers.	Alarm systems and panic buttons. Video surveillance.	Management policies and procedures related to no tolerance of violence or abuse. Worker education in violence awareness, avoidance and de-escalation procedures. Well-trained security guards. Escort to parking lots. Appropriate staffing levels based on client acuity and activity. Working alone policies. Reporting and investigation procedures for incidents and near misses.	Assertiveness training. Use of mediation and/or counselling services.
Hazards related to working alone: » Threat of violence. » Medical emergencies when alone.	Communication devices. Restricted access. Workplace design considerations. Panic alarms. Bright lighting. Mirrors to facilitate seeing around corners or hallways, surveillance cameras.	Scheduling to avoid having workers work alone. Worker training. Working alone policies. Client intake and screening processes. Repeat offender chart alerts. Procedures which permit providing services in alternate locations. Adequate security. Escort to parking lots.	
Stress related to critical incidents.		Training to increase awareness of signs and symptoms of critical incident stress. Critical incident stress team to respond to incidents. Communication and call procedures to mobilize team. Defusings and debriefings as appropriate.	Development of support systems to assist in dealing with stress. Use of counselling services.

Potential Psychological Hazards or Effects of Workplace Stressors	Summary of Major Control Strategies		
	Engineering	**Administrative**	**Personal**
"Technostress" related to the introduction of new technology.	Design of instruments or equipment with user-friendly features.	Selection procedures to ensure user-friendly technology choices. Provision of sufficient training for workers. Worker participation in selection and implementation of new technology. Provision of problem solving resources and support workers. Back-up plans in the event of failures. Change management strategy for introduction of new technology. Realistic expectations regarding use of communication technology. Limit use of technological monitoring of worker productivity. Setting and communication of priorities.	Self-education concerning new technologies. Time management strategies. Open communication about stress related to change. Healthy lifestyles. Setting realistic goals. Limiting the need to multi-task. Technology "time outs."
Substance abuse as a response to excessive workplace stressors.	Surveillance in narcotics storage areas.	Worker involvement in substance abuse policy and procedures development. Worker education about substance abuse. Training workers and supervisors to recognize the signs of substance abuse. Procedures to limit individual access to narcotics. Procedures to control the preparation, transport, storage and dispensing of narcotics. Provision of counselling services and return to work plans.	Increase awareness of substance abuse signs and symptoms. Communication with counsellors. Report to family physician. Participate in treatment programs and return to work programs.

Potential Psychological Hazards or Effects of Workplace Stressors	Summary of Major Control Strategies		
	Engineering	**Administrative**	**Personal**
Depression, anxiety, sleep disorders, or other mental illness as a response to excessive workplace stressors.		Worker education about the signs and symptoms of depression, anxiety, sleep disorders, other mental illness. Elimination of workplace risk factors for depression, anxiety, sleep disorders, other mental illness. Provision of support services and programs. Benefit plans provision. Effective return to work programs.	Programs to maintain or build resilience or coping skills. Development of support system. Communication with family physician.
Hazards related to impacts of aging on workers.	Mechanical devices and power equipment for lifting / moving. Workstation design – storing objects at appropriate heights, packing in smaller quantities or containers. Supportive, adjustable seating and workstations. Workplace noise reduction. Cell phones and pagers that incorporate vibration. Proper lighting.	Management policies and procedures that ensure no age discrimination. Proactive policies to accommodate aging workers. Training opportunities for aging workers. Education for all workers on intergenerational communication. Aging workers as trainers/ mentors. Flexible work arrangement. Job redesign to accommodate aging workers.	Healthy lifestyle. Use of client and material handling equipment. Adequate sleep. Awareness of potential side effects of medication.

Potential Psychological Hazards or Effects of Workplace Stressors	Summary of Major Control Strategies		
	Engineering	**Administrative**	**Personal**
Exposure to nuisance or irritating noise levels that may induce stress.	Any engineering controls required to abate noise to allowable levels, if over permissible exposure limit (PEL). Sound absorber panels. Personal communication devices rather than overhead pagers. Maintenance and repair of facility equipment, including the ventilation system. Lubrication of equipment with moving parts. Design considerations related to noise reduction in new/renovated facilities. Padded chart holders and pneumatic tube systems. Sound-masking technology.	Lower rings on telephones. Encourage use of soft-soled shoes. Worker education on noise levels created by various activities. Posted reminders to reduce noise. Purchasing decisions that take into account noise levels of equipment. Location of noisy equipment to more isolated areas. Work organization at nursing stations to reduce noise.	
Exposure to poor indoor air quality that may induce stress.	Proper ventilation system design. Ventilation system maintenance activities. Isolation/segregation of work processes that may create contaminants.	Contractor requirements to reduce air contamination. Selection of low-pollutant cleaning chemicals. Cleaning schedules. Infection prevention and control standards. Rules regarding the use of personal appliances that may impact HVAC operations. Procedures to report and investigate indoor air quality complaints. Worker involvement in indoor air quality investigation. Communication to enable frank and timely discussion of IAQ issues and what is being done to resolve them.	

Appendix 1

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Appendix 1 – References used in preparing this document

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Appendix 2

Glossary of Terms

Appendix 2 – Glossary of Terms

Abuse: Maltreatment resulting in emotional, mental, or physical injury to its victim.

Aging worker: There is no exact, commonly recognized age at which someone is considered an older worker. Some studies have focused on people older than 55, while other studies examined those 45 years or older.

Bullying: Bullying is usually seen as acts or verbal comments that could 'mentally' hurt or isolate a person in the workplace. Sometimes, bullying can involve negative physical contact as well. Bullying usually involves repeated incidents or a pattern of behaviour that is intended to intimidate, offend, degrade or humiliate a particular person or group of people. It has also been described as the assertion of power through aggression.

Caregiver Strain: Changes in the caregivers' day-to-day lives which can be attributed to the responsibility to provide care for the dependent.

Circadian Rhythms: Physical, mental and behavioural changes that follow a roughly 24-hour cycle, responding primarily to light and darkness in an organism's environment.

Compassion fatigue: The set of symptoms experienced by caregivers who become so overwhelmed by the exposure to the feelings and experiences of their clients that they themselves experience feelings of fear, pain, and suffering including intrusive thoughts, nightmares, loss of energy, and hypervigilance.

Critical Incident Stress (CIS): Stress associated with any sudden unexpected event that has an emotional impact sufficient to overwhelm the usual effective coping skills of an individual or a group and that causes significant psychological distress in usually healthy persons.

Debriefing: A critical incident stress debriefing (CISD) is an important part of the process that usually takes place within 24-48 hours of the incident and includes all those who were involved in the incident. The purpose of the CISD is to have those involved meet with peer counsellors and mental health professionals to discuss the incident and begin to work through their reactions.

Defusing: A defusing session is a short (30–45 minute), non-judgemental session where one or more workers affected by the incident meets with a trained leader (called a defuser). Defusings should be held within 6 to 8 hours of the event.

Depression: There are different kinds of depressive mood disorders, including bipolar disorder (manic-depressive illness), post-partum depression and psychosis, but clinical depression, or "unipolar disorder" is the most common depressive disorder. Mood disorders are very real illnesses that can have serious and sometimes fatal results. They affect the entire body and not just the mind. Their physical symptoms can range from fatigue to stomach complaints or muscle and joint pain.

Eustress: Stress that is deemed healthful or giving one the feeling of fulfillment.

Fatigue: Fatigue is the state of feeling very tired, weary or sleepy resulting from insufficient sleep, prolonged mental or physical work, or extended periods of stress or anxiety. Boring or repetitive tasks can intensify feelings of fatigue. Fatigue can be described as either acute or chronic.

Indoor Air Quality: The quality of indoor air that includes various physical parameters such as humidity, airflow, temperature, and the presence of contaminants that may impact the inhabitants of the facility.

Microsleep: Microsleeps are brief, unintended episodes of loss of attention associated with events such as blank stare, head snapping, and prolonged eye closure which may occur when a person is fatigued but trying to stay awake to perform a monotonous task like driving a car or watching a computer screen.

Nuisance Noise: Noise at levels between 40 and 80 db that may be a nuisance, depending on their nature and the conditions under which they occur. These noises are annoying because they may startle and distract, and interfere with understanding speech or with rest and sleep.

Presenteeism: A productivity and performance related issue that occurs when employees are on the job but, because of illness or other non-health-related issues, are not very productive.

Role Overload: Having too much to do in the amount of time available.

Shift Work: Working outside regular daytime hours (Monday-Friday 7AM to 6PM). Shift work may include rotating shifts, overtime, extended work shifts, night and evening work, part-time work, weekend work, compressed work week, varying work hours, split shifts, seasonal work and on-call work.

Stress: Any change that we have to adapt to.

Stressors: Events or conditions that may cause stress.

Technostress: Personal stress generated by reliance on technological devices, a panicky feeling when they fail, and a state of near-constant stimulation or being constantly 'plugged in'.

Violence and Abuse: Violence and abuse include behaviours such as:

- Physical assault or aggression.
- Unsolicited and unwelcome conduct, comment, gesture or contact, which causes offense or humiliation.
- Physical harm to any individual which creates fear or mistrust, or which compromises and devalues the individual.

Violence and abuse can come from anyone in the workplace and be directed at anyone. It can be subtle or overt.

Work-Life Conflict: Work-life conflict is defined as a form of inter-role conflict in which work and family demands are mutually incompatible so that meeting demands in one domain makes it difficult to meet demands in the other.

Appendix 3

Workplace Violence Prevention Program Checklists

Appendix 3 – Workplace Violence Prevention Program Checklists

Workplace Violence Prevention Program Checklists[107]

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Checklist 1: *Organizational Assessment Questions Regarding Management Commitment and Employee Involvement*

- □ Is there demonstrated organizational concern for employee emotional and physical safety and health as well as that of the patients?
- □ Is there a written workplace violence prevention program in your facility?
- □ Did front-line workers as well as management participate in developing [a Workplace Violence Prevention Program]?
- □ Is there someone clearly responsible for the violence prevention program to ensure that all managers, supervisors, and employees understand their obligations?
- □ Do those responsible have sufficient authority and resources to take all action necessary to ensure worker safety?
- □ Does the violence prevention program address the kinds of violent incidents that are occurring in your facility?
- □ Does the program provide for post-assault medical treatment and psychological counselling for health-care workers who experience or witness assaults or violence incidents?
- □ Is there a system to notify employees promptly about specific workplace security hazards or threats that are made? Are employees aware of this system?
- □ Is there a system for employees to inform management about workplace security hazards or threats without fear of reprisal? Are employees aware of this system?
- □ Is there a system for employees to promptly report violent incidents, "near misses," threats, and verbal assaults without fear of reprisal?
- □ Is there tracking, trending, and regular reporting on violent incidents through the safety committee?
- □ Are front-line workers included as regular members and participants in the safety committee as well as violence tracking activities?

107 Occupational Safety at Health Administration. (2004). Guidelines for Preventing Workplace Violence for Health Care & Social Service Workers; OSHA 3148-01R 2004 **www.osha.gov/Publications/OSHA3148/osha3148.html.**

- □ Does the tracking and reporting capture all types of violence — fatalities, physical assaults, harassment, aggressive behaviour, threats, verbal abuse, and sexual assaults?
- □ Does the tracking and reporting system use the latest categories of violence so data can be compared?
- □ Have the high-risk locations or jobs with the greatest risk of violence as well as the processes and procedures that put employees at risk been identified?
- □ Is there a root-cause analysis of the risk factors associated with individual violent incidents so that current response systems can be addressed and hazards can be eliminated and corrected?
- □ Are employees consulted about what corrective actions need to be taken for single incidents or surveyed about violence concerns in general?
- □ Is there follow-up of employees involved in or witnessing violent incidents to assure [sic] that appropriate medical treatment and counselling have been provided?
- □ Has a process for reporting violent incidents within the facility to the police or requesting police assistance been established?

Identifying Risks for Violence by Unit/Work Area

Perform a step-by-step review of each work area to identify specific places and times that violent incidents are occurring and the risk factors that are present. To ensure multiple perspectives, it is best for a team to perform this work site analysis. Key members of the analysis team should be front-line HCWs, including nurses from each specialty unit, as well as the facility's safety and security professionals.

Find Out What's Happening on Paper

The first step in this work site analysis is to obtain and review data that tells the "who, what, when, where and why" about violent incidents. These sources include:

- □ Incident report forms.
- □ Workers' compensation reports of injury.
- □ Security logs.
- □ Reports to police.
- □ Safety committee reports.
- □ Hazard inspection reports.
- □ Staff termination records.
- □ Union complaints.

Using this information, attempt to answer the questions in Checklist 2.

Checklist 2: *Analyze Workplace Violence Records*

- □ How many incidents occurred in the last 2 years?
- □ What kinds of incidents occurred most often (assault, threats, robbery, vandalism, etc.)?
- □ Where did incidents most often occur?
- □ When did incidents most often occur (day of week, shift, time, etc.)?
- □ What job task was usually being performed when an incident occurred?
- □ Which workers were victimized most often (gender, age, job classification, etc.)?
- □ What type of weapon, if any, was used most often?
- □ Are there any similarities among the assailants?
- □ What other incidents, if any, are you aware of that are not included in the records?
- □ Of those incidents you reviewed, which one or two were most serious?

Use the data collected to stimulate the following discussions:

- □ Are there any important patterns or trends among the incidents?
- □ What do you believe were the main factors contributing to violence in your workplace?
- □ What additional corrective measures would you recommend to reduce or eliminate the problems you identified?

Conduct a Walkthrough

It is important to keep in mind that injuries from violence are often not reported. One of the best ways to observe what is really going on is to conduct a workplace walkthrough.

A walkthrough, which is really a workplace inspection, is the first step in identifying violence risk factors and serves several important functions. While on a walkthrough, hazards can be recognized and often corrected before anyone's health and safety is affected.

While inspecting for workplace violence risk factors, review the physical facility and note the presence or absence of security measures. Local police may also be able to conduct a security audit or provide information about experience with crime in the area.

Ask the Workers

A simple survey can provide valuable information often not found in department walkthroughs and injury logs. Some staff may not report violent acts or threatening situations formally but will share the experiences and suggestions anonymously. This can provide information about previously unnoticed deficiencies or failures in work practices or administrative controls. It also can help increase employee awareness about dangerous conditions and encourage them to become involved in prevention activities.

Types of questions that employees should be asked include:

What do they see as risk factors for violence?

- » The most important risk factors in their work areas.
- » Aspects of the physical environment that contribute to violence.
- » Dangerous situations or "near misses" experienced.
- » Assault experiences—past year, entire time at facility.
- » Staffing adequacy.

How are current control measures working?

» Hospital practices for handling conflict among staff and patients.

» Effectiveness of response to violent incidents.

» How safe they feel in the current environment.

What ideas do employees have to protect workers?

» Highest priorities in violence prevention.

» Ideas for improvements and prevention measures.

How satisfied are they in their jobs?

» With managers/fellow workers.

» Adequacy of rewards and praise.

» Impact on health.

Checklist 3: *Identifying Environmental Risk Factors for Violence*

Use the following checklist to assist in your workplace walkthrough.

General questions about approach:

- □ Are safety and security issues specifically considered in the early stages of facility design, construction, and renovation?
- □ Does the current violence prevention program provide a way to select and implement controls based on the specific risks identified in the workplace security analysis? How does this process occur?

Specific questions about the environment:

- □ Do crime patterns in the neighborhood influence safety in the facility?
- □ Do workers feel safe walking to and from the workplace?
- □ Are entrances visible to security personnel and are they well lit and free of hiding places?
- □ Is there adequate security in parking or public transit waiting areas?
- □ Is public access to the building controlled, and is this system effective?
- □ Can exit doors be opened only from the inside to prevent unauthorized entry?

- □ Is there an internal phone system to activate emergency assistance?
- □ Have alarm systems or panic buttons been installed in high-risk areas?
- □ Given the history of violence at the facility, is a metal detector appropriate in some entry areas? Closed-circuit TV in high-risk areas?
- □ Is there good lighting?
- □ Are fire exits and escape routes clearly marked?
- □ Are reception and work areas designed to prevent unauthorized entry? Do they provide staff good visibility of patients and visitors? If not, are there other provisions such as security cameras or mirrors?
- □ Are patient or client areas designed to minimize stress, including minimizing noise?
- □ Are drugs, equipment, and supplies adequately secured?
- □ Is there a secure place for employees to store their belongings?
- □ Are "safe rooms" available for staff use during emergencies?
- □ Are door locks in patient rooms appropriate? Can they be opened during an emergency?
- □ Do counselling or patient care rooms have two exits, and is furniture arranged to prevent employees from becoming trapped?
- □ Are lockable and secure bathrooms that are separate from patient-client and visitor facilities available for staff members?

Checklist 4: *Assessing the Influence of Day-to-Day Work Practices on Occurrences of Violence*

- □ Are identification tags required for both employees and visitors to the building?
- □ Is there a way to identify patients with a history of violence? Are contingency plans put in place for these patients—such as restricting visitors and supervising their movement through the facility?
- □ Are emergency phone numbers and procedures posted or readily available?
- □ Are there trained security personnel accessible to workers in a timely manner?
- □ Are waiting times for patients kept as short as possible to avoid frustration?
- □ Is there adequate and qualified staffing at all times, particularly during patient transfers, emergency responses, mealtimes, and at night?

- □ Are employees prohibited from entering seclusion rooms alone or working alone in emergency areas of walk-in clinics, particularly at night or when assistance is unavailable?
- □ Are broken windows, doors, locks, and lights replaced promptly?
- □ Are security alarms and devices tested regularly?

Checklist 5: *Post-Incident Response*

- □ Is comprehensive treatment provided to victimized employees as well as those who may be traumatized by witnessing a workplace violence incident? Required services may include trauma-crisis counselling, critical incident stress debriefing, psychological counselling services, peer counselling, and support groups.

Checklist 6: *Assessing Employee and Supervisor Training*

- □ Does the violence prevention program require training for all employees and supervisors when they are hired and when job responsibilities change?
- □ Do agency workers or contract physicians and house staff receive the same training that permanent staff receives?
- □ Are workers trained in how to handle difficult clients or patients?
- □ Does the security staff receive specialized training for the health-care environment?
- □ Is the training tailored to specific units, patient populations, and job tasks, including any tasks done in the field?
- □ Do employees learn progressive behaviour control methods and safe methods to apply restraints?
- □ Do workers believe that the training is effective in handling escalating violence or violent incidents?
- □ Are drills conducted to test the response of health-care facility personnel?
- □ Are workers trained in how to report violent incidents, threats, or abuse and obtain medical care, counselling, workers' compensation, or legal assistance after a violent episode or injury?
- □ Are employees and supervisors trained to behave compassionately toward coworkers when an incident occurs?
- □ Does the training include instruction about the location and operation of safety devices such as alarm systems, along with the required maintenance schedules and procedures?

Checklist 7: *Recordkeeping and Evaluation*

Does the violence prevention program provide for:

- □ Records of all incidents involving assault, harassment, aggressive behaviour, abuse, and verbal attack with attention to maintaining appropriate confidentiality of the records?
- □ Training records?
- □ Workplace walkthrough and security inspection records?
- □ Keeping records of control measures instituted in response to inspections, complaints, or violent incidents?
- □ A system for regular evaluation of engineering, administrative, and work practice controls to see if they are working well?
- □ A system for regular review of individual reports and trending and analysis of all incidents?
- □ Employee surveys regarding the effectiveness of control measures instituted?
- □ Discussions with employees who are involved in hostile situations to ask about the quality of post-incident treatment they received?
- □ A provision for an outside audit or [review] of the violence program for recommendations on improving safety?

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