VETERAN'S AFFAIRS WELLNESS KIT: DISCUSSIONS WITH FIRE FIGHTERS

by

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Abstract

The purpose of this research was to answer the question "What support do firefighters and their partners feel they need for the prevention and treatment of fire rescue occupational stress"? Phase One of the research was a reflexive auto-ethnography of the researcher during presentation of a workshop based on the Veteran Affair's Wellness Kit to the local fire rescue members. Phase Two consisted of personal interviews of the fire rescue members and their partners. The workshop format was positively accepted, and well attended. Interviews revealed findings with positives from the job, issues with safety, stress, technology usage, and training. Training in several areas was suggested for improvement as well as the continuing discussion of behavioural health. A broad holistic view of stress that institutes overall cultural and organizational changes to support stress prevention is recommended. Firefighters and their partners believed the level of support within the fire department sufficient for the prevention and treatment of occupational stress. The literature and the researcher's own experience suggest their recognition of occupational stress is insufficient and discussions with firefighters and their partners regarding behavioural health needs to continue.

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My husband and family are recognized as well for their patience and their longsuffering.

Veteran's Affairs Wellness Kit: Discussions with Fire Fighters

The purpose of this research was to address the question "What support do firefighters and their partners feel they need for the prevention and treatment of fire rescue occupational stress"? The present project was also intended to address a gap in the literature regarding qualitative research of behavioural health with fire service members and families.

This paper provides an appraisal of the available literature regarding factors of occupational stress for firefighters. A growing body of research has demonstrated an increased awareness of the physical and psychological side effects of the firefighter profession. Several major disasters including "9/11" (September 11, 2001) assisted in the interest in the profession of firefighters as a group. These professionals consistently endure high-stress situations and thus, the question about whether stress affects performance is critical to the safety of both themselves and the public (Regehr, Leblanc, Jelley, & Barath, 2008). Traumatic, non-traumatic, and organizational stresses compound to place emergency responders at high risk for emotional consequences (Cowman, Ferrari, & Liao-Troth, 2004; Reynolds & Wagner, 2007).

Health promotion theory proposes to assist people to maximize their health potential through various routes; while educational interventions are favoured they are not always the most effective or appropriate means of maximizing health potential. Researchers have linked a high level of social support with healthier living (Brannon & Feist, 2007). Health promotion and social support topics will be discussed further in this paper. In addition to these topics, stress theory is presented, and its relevance to firefighter health explored.

Utilizing qualitative research methods provides rich dialogue and is dependent on the researcher's critical lens. This lens will be described in regards to the researcher's background and experiences.

Literature Review

A review of the available literature was completed using several indexes and databases (CINHAL, MEDLINE, PsychINFO, PUBMed). The literature reviewed ranged from the very expansive knowledge base of stress and coping to the narrower field of the profession of firefighters. To begin the examination of stress and its components, the development of stress theory will be presented. The review of the research literature will begin with "who are firefighters" and the relevance of the 'firefighter personality", then present the research regarding critical incident stress management and post traumatic stress disorder, followed by the tenets of health promotion research, research of social support, and findings of occupational stress studies.

History of Stress

The study of stress began in the Greek classic era. First Heraclitus then later Hippocrates suggested that the disturbing forces that produced the disharmony of disease derived from natural rather than supernatural sources and that the counterbalancing or adaptive forces were of a natural origin as well (Chrousos & Gold, 1992). In the 1930s, Hans Selye borrowed the term "stress" from physics and set it to mean the mutual actions of forces that take place across any section of the body. Selye made it clear that not all states of stress, or threats to homeostasis, were noxious when he coined the terms "eustress" and "distress" (Chrousos & Gold, 1992). Thus, he believed that mild, brief, and controllable states of challenged homeostasis would actually be perceived as pleasant or exciting. It could also be

positive stimuli to emotional and intellectual growth, and development. Selye believed that the more severe, protracted, and uncontrollable situations of psychological and physical distress led to disease (Chrousos & Gold, 1992).

Firefighter Profession

Firefighters are presently part of the early response team that includes ambulance paramedics and police in Canada. Professional or volunteer, they respond to fires of residential and industrial origin, medical emergencies, suicides, car accidents, crimes, bomb threats, and toxic waste spills (Miller, 1995). These workers are at greater risk for stress related issues due to the nature of first responder calls (Fullerton, McCarroll, Ursano, & Wright, 1992) and the roles firefighters play in calls. Members need a high level of occupational skill as well as excellent mental and physical health to withstand the requirements of the occupation (International Association of Fire Fighters, 2000).

Firefighters, historically, responded only to fires and related potential fire accidents. Eventually, it became apparent that firefighter hall placements allowed them to be quick responders in medical emergencies as well, thus providing faster access to pre-hospital care (Suyama, Rittenberg, Patterson & Hostler, 2009). Firefighters eventually became part of a worldwide staged response system along with police and ambulance providers. For example, in a trial in Denmark, the responders successfully resuscitated seven of nine shock-able heart rhythms with an external automatic defibrillator thus facilitating complete recovery (Hoyer & Christensen, 2009). However, although viewed as a positive addition to their skills, one study found firefighters voiced they were not given additional resources to deal with the added stressors of such calls (Smith, Rich, Pastoriza Pinol, Hankin, & McNeil, 2001).

Firefighter Personality

Traditionally, the iconic symbols of a firefighter include embracing danger, acts of heroism, and masculinity (Thurnell-Read & Parker, 2008). Society views firefighters as "tough guys" (Miller, 1995, p. 592), heroes, brave, and selfless (Regehr, Dimitropoulos, Bright, George, & Henderson, 2005). Gist and Woodall (1995) describe the fire service as an insular group, both socially and occupationally. Mitchell (1986) portrays firefighters as obsessive individuals who desire to complete a perfect job but who tend to be intolerant of shortcomings and slow to forgive incompetence in others. Furthermore, Mitchell and Bray (1990) use the concept of *rescue personality* to describe characteristics of emergency service workers: inner-directed, action orientated, easily bored, obsessed with high standards, traditional, and socially conservative. Wagner, Martin, and McFee (2010) suggested that the *rescue personality* concept was not supported in their research with career firefighters; however, firefighters self-reported significantly more extraversion than did similar comparison participants. Firefighter personality characteristics have also been compared to police officers' characteristics resulting in demonstrated slight differences (Salters-Pedneault, Ruef, & Orr, 2010). Police scored higher than firefighters for gregariousness, dutifulness, and deliberation. As well, firefighters did not differ systematically from the general population, although firefighter recruits did endorse greater excitement seeking (Salters-Pedneault et al., 2010).

Guidotti (1995) suggests that rescue workers, including firefighters, resemble an average part of the public who struggle with healthy lifestyle behaviours. They, however, have personality traits such as quick decision making, jumping into action, and questioning everything. According to Mitchell, these workers also like control and making the decisions

(Mitchell, 1986). Some authors suggest that these characteristics may make for an effective firefighter, but a poor partner (Kirschman 1997; McEvoy, 2002). Regardless of personality style, these specialized workers provide an important social service, and increased support to sustain health status in this population is warranted (Murphy, Bond, Beaton, Murphy, & Johnson, 2002).

Key Concepts

Crisis and critical incident, posttraumatic stress as well as occupational stress are key concepts and are defined in the following paragraphs.

A crisis can be described as a "period of psychological disequilibrium, experienced as a result of a hazardous event or situation that constitutes a significant problem that cannot be remedied by using familiar coping strategies" (Roberts, 2000, p. 7). During a crisis, psychological homeostasis has been disrupted, the coping mechanisms have failed to re-establish homeostasis and the distress has yielded some evidence of functional impairment (Everly, 1999). This disruption can be triggered by a critical incident.

A critical incident is described as the stimulus that sets the stage for the crisis response (Everly, 1999). A traumatic accident or suicide scene, knowing the victims personally, injury or death of children and colleagues can all cause psychological disequilibrium in a rescue worker (Brough, 2005). The response to each situation is specific to the individual and Wagner et al. (2009) expected that this response would be reflected in possible interruptions to world assumptions or world view. However, despite expectations, these researchers found no differences in world assumptions of firefighters in comparison to a community sample. This finding suggests that reactions to stress may differ for secondary versus primary

exposure to trauma, as in the case of much traumatic exposure experienced by first responders.

Job or occupational stress can be identified as harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker (National Institute for Occupational Safety and Health, 1999). Firefighters and medical personnel are faced with constant challenges, including lack of resources, difficult personalities to deal with, and public perceptions. Murphy and team (2002) identified the need for a management process intended to help manage these factors. The social implications of continued investigations of individual and organizational behaviors involving firefighters and similar workers have significance for both health promotion and stress management preventive interventions (Murphy et al., 2002). Sources of job stress, such as personal safety and maintaining needed skills, are central to firefighters. These concerns need to continue to be addressed by management (Murphy et al., 2002). Firefighters are an integral part of our society and, as such, these workers deserve support in diminishing the negative effects of their occupation. The debate amongst researchers regarding the optimal method to accomplish that management process will now be presented.

Critical Incident Stress Management

Four major foundational influences are credited for current crisis intervention methods: military experiences, police psychology, emergency medical systems, and disaster response teams (Mitchell, 1988). Mitchell, an early leader in this research, had a background in firefighting and paramedic service and thus personal insight into the issues (Everly, 1999). His model, the critical incident stress model (CISM), is arguably the most well known model

of crisis intervention. There have been three major development periods for CISM, development from 1974 to 1983, evaluation of the process until 1988 and lastly, refinement of the management components (Everly, 1999; Everly & Mitchell, 2000; Mitchell, 1988).

Designed as a form of psychological first aid, critical incident stress management (CISM) is an integrated, comprehensive, multi-component crisis intervention system with seven core components. Everly (1999) includes stress management education, stress resistance, and crisis mitigation training for both individuals and organizations in pre-crisis preparation. Disaster or large-scale incident training with school and community support programs including group informational briefings and town meetings is also included. Next, Everly (1999) uses defusing; a three phase, structured small group discussion provided within hours of a crisis for purposes of assessment, triaging, and acute symptom mitigation. Critical incident stress debriefing (CISD), also a seven phase structured group discussion, is normally provided 1-14 days post crisis and designed to mitigate acute symptoms, assess for follow up, and if possible, provide a sense of post-crisis psychological closure. Following this debriefing, one on one crisis intervention or support throughout the full range of interventions begins. Typically, this consists of 1-3 contacts with an individual who is in crisis. Family crisis intervention and organizational consultation is also included with follow-up and referral mechanisms (Everly, 1999).

The entire CISM method has become subject to issues of validity and study replication, resulting in controversy in the literature regarding its use. The beginning periods of CISM involved much use of the debriefing in an open group experience with trained, unrelated mediators. Despite CISD being only one component of the CISM process, as the method popularity spread, the debriefing aspect took on a much larger portion of the attention

to CISM. CISD refers to only one aspect of the overall group crisis intervention; however, the technique blossomed in isolation of the overall model due to its simplicity and brevity (Everly & Mitchell, 2000).

Examples of CISM case articles from the 1990s rely on the Impact of Events Scale (IES) (Horowitz, Wilner, & Alvarez, 1979) to identify outcomes of a critical incident. Observations reflected the value of shared experience with another member of the same service rather than a trained mediator; the participants felt less insular and not alone (Robinson & Mitchell, 1993). Respondents in one study were asked about duties during a civil disobedience crisis in the city. All had some form of CISD in group form (N=42). The CISD group had lower stress scores than the non CISD group (N= 23). However, there was mention of other possible interactions potentially indicating a design flaw in isolation of the variables (Wee, Mills, & Koehler, 1999). Clifford (1999) utilized a full CISM team consisting of 25 peer support members trained in crisis intervention (4 day training), two chaplains, a full time program coordinator and a psychologist clinical director. The team met quarterly and served approximately 6000 members. The team's case involved a landslide in a ski resort that wiped out two ski lodges with an unknown number of people missing and injured. The results of this study included the recommendation to incorporate all of the CISM components to ensure adequate support for follow-up (Clifford, 1999). In contrast, another case looked at rescue workers (mostly men) and nurses (all women) after the sinking of a large car ferry using the Impact of Event Scale and two other measurement scales. Rescue workers had CISD intervention while the nurses did not. The results were mixed and noted that debriefing is research resistant because of its heated emotional environment, as well as debriefing is not the 'end all' of post disaster intervention (Nurmi, 1999).

In a similar disaster case study, two catastrophic avalanches impacted small villages, requiring rescue workers to find the survivors as well as the victims, with the last taking an agonizing 18 hours to find a toddler's remains (Aoalsteinsson,1999). Rescuers were offered debriefing only if they encountered deceased victims. The author found the organizers needed more stringent guidelines for evaluating who may need debriefing, not just those recovering bodies. The concept of peer support also became very relevant as participants shared memories between themselves and neglected to follow CISM protocols (Aoalsteinsson, 1999).

Further research examination began to reveal a divergence of opinions. The most vocal seems to be Gist and Woodall (1995). They describe Mitchell as having a very opportune concept and building it into a rather remarkable, lucrative empire. The concept of veteran to rookie chats had long been a part of fire service tradition and firefighters always depended on comrades and officers. Doing this systematically with protocol seems inherently sensible. Despite its cognitively appealing nature, Gist and Woodall (1995) provided the following conclusions regarding CISM. First, no reliable empirical evidence indicating a preventative effect was found and no greater result than traditional venues of discussion and social support. Second, there was no systematic data that suggests superiority of the "Mitchell model" and additionally, paradoxical negative effects found in other literature. Lastly, the more rigorous the study and the more objective its measurements, the more likely it is a neutral to negative assessment was found in comparison (Gist & Woodall, 1995).

The problem of its demonstrated value is compounded in practice where the profitable enterprise of debriefing has become dominated by a subculture of secondary providers whose understanding of these highly complex issues is often limited to proprietory workshops run by

Mitchell and others rather than peer-reviewed venues (Gist & Devilly, 2002). This in turn has entrenched self-identified debriefers within organizations who strive to help but are hampered by the tools they have been licensed to use. Immediate debriefing has shown contradictory outcomes but structured interventions may provide improved models of care where the nature and level of intervention is tailored to the needs, context, and course of individual resoution (Gist & Devilly, 2002).

The CISM process continues to evolve out of public experiences and further research. A predominately group style intervention progressed to a fundamentally individual manifestation, as demonstrated in the literature. Recent work focuses on recognizing the impact of stress from a variety of sources and approaches stress prevention in a multi-staged and comprehensive manner. Primary stage interventions, with holistic views of stress are needed to support stress prevention. More globally, cultural and organizational changes are also essential in stress prevention (Reynolds & Wagner, 2007). Jeannette and Scoboria (2008) published a study regarding firefighter preferences in post incident intervention that found preferences varied by the severity of the scenario. Some preference for informal discussion in situations of competent performance was noted while one-to-one debriefing was preferred in moderate impacting event situations. In terms of intervention, they concluded, "one size does not fit all" (Jeannette & Scoboria, 2008 pg. 323). Results also include severity-associated measures with increased interest for formal intervention and one-to-one counselling preferred over CISD for events of low to moderate severity. Both individual counselling and CISD were equally preferred at higher severity incidents; however, of the greatest severity and impact was the self-appraised discrepancy of optimal job performance. Individual counselling and reflection on the sequence of events was useful. Support was seen as desirable and of

significant importance was a strong, informal institutional culture in dealing with everyday challenges (Jeanette & Scoboria, 2008).

Although certain aspects of CISM, such as debriefing, have been favourably reviewed by participants, there is only but little direct support for the efficacy of the approach in the literature. A variety of debriefing strategies continue to enjoy widespread support despite the lack of evidence (Boudreaux & McCabe, 2000). Indeed, CISD has not been empirically demonstrated to decrease symptoms of PTSD and/or other trauma related symptoms; rather, a detrimental effect has been suggested (van Emmerik, Kamphuis, Huisbosch, & Emmelkamp, 2002).

In the late 1990s, the concept of peer support crisis intervention became a cornerstone of critical incident stress management. Gist and Devilly (2002) have suggested that one intervention alone may not be enough; but instead, all components are needed in a comprehensive crisis intervention program. Defusing and individual counseling may be better embedded into models of stepped care where the nature and level of intervention is tailored to the needs, context, and course of individual resolution (Gist & Devilly, 2002). Through educating participants about acute stress reactions, trauma, and posttraumatic stress reactions, debriefed subjects are presumed to reestablish a sense of control (Nurmi, 1999) such that they feel less insular and less alone (Robinson & Mitchell, 1993). Teaching of coping techniques presumably can help mitigate the crisis response and increase self-efficacy.

Post Traumatic Stress Disorder

PTSD has emerged from a war trauma consequence of 'shellshock', to a predisposition theory in the 1940s, to a much broader general societal application today. In

order to have universal agreement for diagnosis and treatment, the American Psychiatric Association (APA) amassed a diagnostic guide in the 1950s.

The Diagnostic and Statistical Manual of Mental Disorders, (DSM-IV-TR) 4th edition-text revision is the guide (DSM-IV-TR, APA, 2000). It details the criterion for diagnosis, treatment, and application of diagnostic codes for psychiatric disorders. The first edition in the late 1950s has been revised several times based on ongoing research (APA, 2011). A revision of the current diagnostic criteria is underway with a new DSM-V expected to be published in May 2013 (APA, 2011). PTSD is one area of the guide under revision as researchers, clinicians and the public have increased knowledge of the disorder.

As with CISM, one of the major influences for the foundation of PTSD is military experiences. The PTSD concept is common public knowledge; PTSD has become a pop culture diagnosis (Jones et al., 2003). Movie portrayals about the Vietnam War, such as *Apocalypse Now*, *The Deer Hunter,* and *Born on the Fourth of July* all feature Vietnam veterans who end up having to deal with the issues that come with PTSD. These films have been well received by audiences; as a culture, humans are very interested in how other people deal with traumatic events in their lives. However 'mainstream' a concept presently is in society (Jones et al., 2003), war trauma awareness has ancient roots.

Historically, the horrors of war have always permeated society. From his historian's perspective, Shephard began reviewing documents of doctors and practitioners examining issues of 'shell-shock' and the traumas of war since World War I. Attention then was focused on the individual soldier and then examined the theory of predisposition to suggest why certain soldiers were ill equipped to cope with war (Shephard, 2004). Post British *Blitzkrieg* era practitioners realized the public was also affected by 'shell shock'. The debate regarding

predisposition continued until forward thinking British military staff began screening of recruits in 1941. The screening tests produced the concept of a neurotic personality and the concept that personality was the basis for stress. Stress caused the failure to adapt to army life instead of a mental illness (Shephard, 2004). It was successfully argued by leading practitioners that you could pre-screen for neurotic traits and thus prevent a breakdown of a soldier. As World War II proceeded, American doctors were attempting to reduce the large numbers of men who were screened as neurotic and thus not eligible for battle. By 1951, the argument had come full circle by suggesting a mildly neurotic soldier may be able to cope better than an ordinary person (Shephard, 2004). As research continued, results were generalized into getting the veterans working and growing a family as the means to assist the veterans' reentry to society broadly without explaining the social or cultural aspects with the economic prosperity of the time (Shephard, 2004). The APA began compiling the DSM at this time, as well, the medical community's introduction of psychoactive drugs for treatment of mental illness. These drugs had an astonishing effect and diminished mental hospital stays dramatically (APA, 2011). Then, the Vietnam conflict began and entirely new issues arose.

The Vietnam conflict brought in a demand for soldiers that exceeded the ability to recruit men via current screening processes. Thus, entrance standards were lowered significantly (Shephard, 2004). The concept that soldiers had brought severe distress on themselves by their upbringing was pervasive in the armed forces administration. Psychologist A.S. Blank (1985) wrote decisively that the acute stress reaction has influence from many factors and he found no pre-service predictors of post war stress related symptoms, thus opposing the theory of predisposition (Blank, 1985). Breslau and Davis

(1987) supported the view that the magnitude of the stressor was not a determining factor, but rather emphasized the relevance of the vulnerability factor for stress-induced syndromes.

Psychologists in the aftermath of the Vietnam War were redefining the idea of predisposition by intertwining it with the nature/nurture argument. The posttraumatic stress disorder phrase was created and warranted inclusion in the diagnostic manual in 1980 (Shephard, 2004). Incorporation of Hans Selye's stress adaptation model began. The DSM-III edition specified that the traumatic event was of a nature that would cause "significant symptoms of distress in almost anyone" (as cited by Breslau and Kessler, 2001 p. 699). The DSM-IIIR introduced an additional feature—namely, that the event was "outside the range of usual human experience." (as cited by Breslau and Kessler, 2001 p. 699). The standard for determining whether an event "qualified" was the clinician's judgment of the stress that an "average" person would experience under similar circumstances. Views varied on the boundaries qualifying or non-qualifying stressors. Some viewed any stressor as qualifying if it resulted in the typical PTSD syndrome; however, DSM-III and DSM-IIIR defined the stressor objectively, without reference to the victim's emotional response (Breslau & Kessler, 2001).

The Impact of Events Scale (IES) (Horowitz et al., 1979) became one of the reliance measures assessing the level of discomfort experienced by a participant. Earlier versions were based on the DSM III definitions. The wider goal of this research was to refine an instrument accurately measuring the impact of stress of events and thus assist in the true diagnosis of PTSD (Breslau & Kessler, 2001). The IES-R was subsequently developed by Weiss and Marmar to parallel the DSM-IV criteria for PTSD (Weiss & Marmar, 1997).

A lack of reference to emotional response began a new argument surrounding PTSD. The DSM-IV definition of the PTSD stressor is a clear departure from previous versions.

PTSD was later edited in the DSM- IV into two parts—the first part, A1, states the range of qualifying stressors; the second part, A2, requires that the "person's response involved intense fear, helplessness, or horror (APA, 2011)". Epidemiologic surveys used the examples in the DSM to form lists of qualifying traumatic events; a clinical judgment about the stress-inducing potential of a particular traumatic event for the average person has not been a methodologically feasible standard. This two-part definition de-emphasizes the objective nature of the trauma and relies instead on the principle that people perceive and respond differently to outwardly similar events. The shift from the objective nature of the stressor to the subjective experience of the victim is evident not only in the added subjective component (A2), but also in the objective component (A1), where there is no longer a focus on the stressor as an experience that "would be markedly distressing to almost anyone," but instead on the victim, who must have "experienced," "witnessed," or "been confronted by" (O'Brian, 1998). There is no empirical evidence on the net effect of the broader range of stressors in A1, coupled with the added requirement of the subjective response in A2, on the prevalence of exposure to stressors, as defined by the two-part criterion A and the probability of PTSD given exposure (Breslau & Kessler, 2001).

According to APA's Diagnostic and Statistical Manual of Mental Disorders, 4th edition-text revision (DSM-IV-TR, APA, 2000), there are six core criteria for a PTSD diagnosis, labeled A–F:

> **"A. The person has been exposed to a traumatic event in which both of the following were present:**
> 1. the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others.
> 2. the person's response involved intense fear, helplessness, or horror.
> **B. The traumatic event is persistently re-experienced in one (or more) of the following ways:**

1. recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions recurrent distressing dreams of the event
2.acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated)
3. intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event
4. physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:

1.efforts to avoid thoughts, feelings, or conversations associated with the trauma
2. efforts to avoid activities, places, or people that arouse recollections of the trauma
3.inability to recall an important aspect of the trauma
4.markedly diminished interest or participation in significant activities
5.feeling of detachment or estrangement from others
6.restricted range of affect (e.g., unable to have loving feelings)
7.sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

1.difficulty falling or staying asleep
2.irritability or outbursts of anger
3.difficulty concentrating
4.hypervigilance
5.exaggerated startle response

E. Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month.

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning."

(APA, 2002 p. 25)

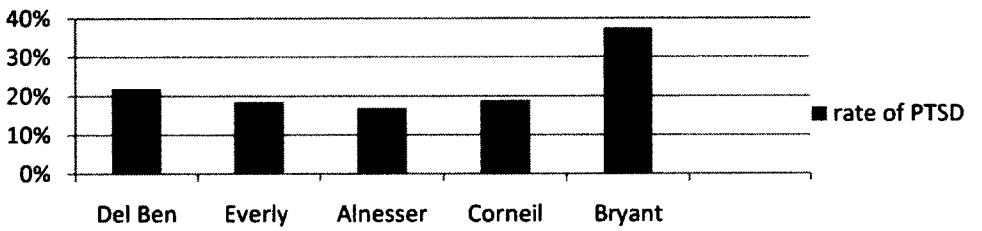
An advocate of change for the DSM-V, McNally (2009) suggests sweeping changes for the criterion for PTSD to restore the scientific credibility of traumatic stress studies. He served as an advisor to the APA committee for PTSD. McNally states the requirement of physical presence at the scene of a trauma for Criterion A1 is critical. According to McNally, anyone suffering from PTSD symptoms from an indirect source should be given an anxiety disorder diagnosis or a new code for non-pathological reactions to a stressor (McNally, 2009). He also suggests elimination of A2 criterion all together as it confuses the response with the

stimulus. As well, he recommends the elimination of the symptom of inability to recall in criterion 3 as it fails to distinguish between encoding failure and retrieval failure (i.e., amnesia), and hence should be eliminated as ambiguous (McNally, 2009). Alternately, work by Kubany, Ralston and Hill (2010) with military personnel and their families suggests that the criteria for the PTSD criterion A2 may be too broad and should include all three; intense fear, helplessness, and horror. Data from a large national US survey found PTSD symptoms overlay with anxiety and mood disorders and raise concerns over the PTSD diagnosis construct validity (Elhai, Grubaugh, Kashdan, & Frueh, 2008). One critic asserts that narrowing the diagnosis of PTSD from a pop culture term to a research based, scientific one should be a goal of the revision process (McNally, 2009). The official diagnostic criteria for the DSM-V will be revealed when it is published in May 2013 (APA, 2010). Researchers and clinicians will be waiting for the crucial criteria and to ascertain if scientific credibility of traumatic stress studies was restored, as McNally (2009) suggested.

prevalence of ptsd in firefighters. Reviewing the rate of prevalence through the research body of knowledge reveals a serious mental health problem of epidemic proportions. Urban, professional firefighters in North America are at approximately twice the risk rate of developing traumatic stress symptoms (PTSS) as compared to the general population (Corneil, Beaton, Murphy, Johnson, & Pike 1999; Wagner et al., 2010). Corneil et al. used the Impact of Event Scale (IES) measures of work strain, sources of occupational stress, and work environmental scale. They also included social support measures. Findings included being married and being a junior firefighter (with little planning responsibilities) as protective factors in the U.S. sample but not in the Canadian sample. Canadian firefighters with more than 15 years service had notable increased risk for PTSS. Higher levels of family and at-

work social support were associated with lower odds ratio for PTSS, while a higher reported level of work strain significantly elevated odds ratio of PTSS. A 1990 sample indicated prevelance rates were 15-18 times the rate of the general population, similar to wounded Vietnam vets. Del Ben, Scotti, Chen, and Fortson (2006) used similar scales and the posttraumatic stress disorder checklist (civilian) version for symptom measures in their ascertainment of prevalence numbers. They compared their results with IES score >greater than 19 in four other studies:

Figure 1 Comparison of rates of PTSD of firefighters in five studies



NOTE: (Del Ben, Scotti, Chen, & Fortson, 2006, p. 44)

Wagner, McFee, and Martin (2009) found that all mental health symptoms for which firefighters scored higher than the comparison sample appeared to be reflective of at least one PTSD criterion (e.g., hostility, interpersonal sensitivity, intrusive thoughts). Chamberlain and Green (2010) report that older firefighters had more psychological distress but not higher levels of post traumatic stress symptoms. They attribute this to cumulative exposure and events outside work contributing to distress in firefighters (Chamberlain & Green, 2010). This becomes a powerful impetus for the development of behavioural health promotion strategies for the member and their families.

Dean, Gow, and Shakespeare-Finch (2003) examined groups within the firefighting population by surveying career firefighters and volunteer firefighters using the Impact of

Events Scale-Revised. This scale parallels the PTSD criteria in the DSM-IV but does not include an evaluation of Criterion A. Findings showed career firefighters had significantly more symptoms but had also attended more events that could be deemed traumatic. The length of time firefighters worked affected the reported symptoms of distress.

secondary traumatization. Whereas PTSD refers to the impact on primary victims of trauma, vicarious traumatization refers to the impact on secondary victims of trauma (Vrklevski & Franklin, 2008). This concept is attributed to McCann and Pearlman (1990) and describes the changes that occur in trauma workers because of working with trauma survivors. Vicarious trauma involves changes in the core aspects of the self (Pearlman & Saakvitne, 1995). These changes include disruptions in both self and professional identity, worldview, spirituality, abilities, and cognitive beliefs particularly in the areas of safety, trust, esteem, intimacy, and control (Saakvitne & Pearlman, 1996, Wagner, Mcfee, & Martin, 2009).

In addition to rescue workers, researchers aimed to ascertain the severity of post-traumatic stress on secondary victims with the association of patient stress and personality variables. Chung, Easthope, Farmer, Werrett and Chung (2003) surveyed people who had experienced exposure to a train crash. Two trains collided literally in the backyards of the residents, with one engine stopping two centimeters from one house wall and tanker cars strewn around. One fatality and the twenty-two injured were the result of the accident, and all injured victims were from the train crew. The neighbourhood residents were thus defined as secondary victims (n=66). A comparison group (n=90) from the general public in another city not exposed to the train disaster was used.

Results were determined by comparison of the Impact of Event Scale, General Health Scale, Eyesnek Personality Scale and personal interviews. These well established tools have

demonstrated validity (Chung et al., 2003). The results confirmed the first hypothesis in that just over half of the community residents experienced a high IES symptom level. A further 20% reported a medium IES symptom level. The second hypothesis, that post-traumatic stress would be associated with personality variables, was also demonstrated in that intrusive thoughts, avoidance behaviour and general health were predicted by neuroticism. The authors admit they were not able to ascertain whether these residents had been neurotic before the train crash or were made neurotic by the disaster. Chung et al. (2003) also found that traumatic impact affected the entire hamlet's residents to a similar degree, whether they lived close to the crash or not. These authors postulated that this breath or impact might have been due to the closeness of the community. Residents experiencing post-traumatic effects could experience long-term effects even though they were secondary victims. As well, residents with a neurotic personality tended to be more likely to report a traumatic impact of the disaster and have general health problems (Chung et al., 2003).

Firefighter families may be impacted vicariously by the emotional trauma of a disaster. For example, during the World Trade Centre 9/11 disaster, family members experienced fear for their loved ones, survivor's guilt and feelings of abandonment during the long rescue efforts (Menendez, Molloy, & Corrigan Magaldi, 2006). Indirect exposure to powerful factors such as hearing about the horrors of 9/11 or a tragic fire may lead to the development of vicarious traumatization and the progression into posttraumatic stress syndrome in families or partners (Chung, et al., 2003; Zimering, Gulliver, Knight, Munroe, & Keane, 2006).

Zimering et al. looked at the rate of PTSD in relief workers from 9/11 from direct exposure and indirect exposure through survivor narratives. Indirect traumatic exposure was

defined as knowledge of an event through a first person account of actual or threatened death or serious injury (irrespective of the relationship to the survivor) (Zimering et al., 2006). Their findings suggest that indirect exposure may be a potent factor leading to the development of PTSD in some people. The findings were also noteworthy because they found PTSD from indirect exposure to trauma in individuals whose occupations involve high-risk duties and who display resilience in the face of such exposure (Zimering et al., 2006). They also suggest more research is needed regarding PTSD symptoms that manifest following indirect exposure to trauma and the characteristics of individuals who do not develop PTSD symptoms after indirect exposure (Zimering, et al., 2006).

Similar Research

In reviewing the few available studies similar to the present proposal studies, the PHLAME (Promoting Healthy Lifestyles: Alternate Models' Effects) (Elliot, Goldberg, Keuhl, Moe, Breger, & Pickering, 2007) firefighter study was presented as a large, prospective trial among 599 firefighters. The PHLAME study was very comprehensive in the definition of health and included many variables. Researchers assessed and compared a team approach and individual coaching to promote healthy lifestyles using social learning theory (Elliot et al., 2007).

In the team approach, firefighters' personal characteristics, knowledge, behaviors, attitudes, and other potentially influential factors were assessed using a questionnaire containing established tools. Items were answered using an anchored 7-point Likert-type agreement scale. Related individual questions were grouped to assess proposed constructs, with internal consistency determined using Cronbach alpha. Dietary habits were indexed using standardized assessment instruments for daily servings of fruits and vegetables, as well

as behaviors related to eating a higher-fat diet. The final instrument contained 116 items and could be completed in approximately 45 minutes. The scope of the team-based curriculum general topics included a personal review, records and chart assessment, an endurance strength and flexibility test, questions about physical activity, attitudes to energy and exercise, and a work out plan. Also, they analyzed a 24 hour diet record, discussed serving sizes, energy make up of foods and assessed knowledge and attitudes towards food (Elliot et al., 2007).

PHLAME's second intervention targeted the individual, using a more traditional client and provider format. Firefighters met individually with a specially trained health counsellor for a sequence of 4 sessions, each lasting up to 60 minutes (Elliot et al., 2004). Follow up sessions were a negotiated series of additional phone or in-person contacts. The counselor assessed the firefighter's progress toward each lifestyle goal and used motivational interviewing skills to apply appropriate actions. This communication strategy emphasized individual choice and responsibility, with the counselor maintaining a supportive and affirming role.

PHLAME found both methods promoted healthy behaviour; however, the scripted team curriculum was slightly more successful, and may have enlisted additional positive influences not found within individual methods (Elliot et al., 2007). More importantly, it showed that team centered models can provide a cost effective method to altering behaviour (Moe et al., 2002). PHLAME was focused on physical health while other research has focused on mental health of firefighters.

To determine the satisfaction and effectiveness of a critical incident-debriefing program, a 26-question survey was developed by selected peer and mental health members of

the CISM Team for the Los Angeles Company Fire Department (LACoFD). This survey was distributed in September 1996 to 3000 members (Hokanson & Wirth, 2000). At that point, the LACoFD also provided a few debriefings that were open and voluntary to personnel. Less than three people attended any of these voluntary debriefings. Based on previous usage and the fact that most firefighters often state that they do not think they need help after a critical incident, asking the firefighter whether he or she would attend voluntarily does not seem warranted (Hokanson & Wirth, 2000). The results showed individuals reported a significant difference in the speed of symptom reduction for incidents that were debriefed versus incidents that were not (Hokanson & Wirth, 2000). The majority of individuals would recommend the debriefing process to others regardless of whether they personally found the process helpful or not. The researchers' recommendation to the LACoFD was to keep the debriefing process mandatory. In light of the term mandatory being somewhat controversial, it was recommended to change this term to "*automatic*" with five potential traumatic events triggering a debriefing (Hokanson & Wirth, 2000, pg. 255). These included major disasters, multiple casualty incidents, line-of-duty death or suicide of a department member, death of a child (resulting from violence, neglect, or any other condition which may have a lasting effect on personnel), and any incident or situation that the incident commander felt may require CISM team intervention (Hokanson & Wirth, 2000).

Hokanson and Wirth (2000) rationalized that the fire service has many procedures that are designed to protect the physical health of the personnel and are automatic (e.g. putting air bottles on during structure fires, wearing safety protection gear, etc.). These are not questioned by firefighters. Therefore, concern for their emotional and psychological health

should also be automatic. It should not be left up to each individual firefighter to determine whether or not he or she needs to attend a debriefing. (Hokanson & Wirth, 2000).

Regehr, Hill, and Glancy (2000) explored the influence of individual factors and social support on traumatic reactions in firefighters exposed to tragic events in the line of duty. A total of 164 Australian firefighters completed questionnaires targeting locus of control, self-efficacy, patterns of interpersonal relating, social support, and level of emotional distress. They summarized their findings to say that firefighters with feelings of insecurity, lack of personal control, and alienation were more likely to have higher levels of depression and present with stress symptoms (Regehr, Hill, & Glancy 2000). This study partially prompted the research question of this thesis work.

Smith et al. (2001) reviewed the implementation of the first responder role to a group of firefighters by using focus groups and questionnaires with 144 firefighters. This was the initiation of a medical first-responder role to professional firefighters in Australia. The focus groups revealed the first-responder role was felt to be a valuable addition to the firefighter skills set and a good use of resources. An area for which respondents felt deficient was a mechanism for reducing stress associated with the first responder role. Only 34% felt comfortable to use the critical incident stress support service (Smith et al., 2001, pg 37). Another area of concern was the communication strategies utilized by the Fire Brigade. One recommendation from the authors included the acknowledgement that a change in job description requires the organization to ensure the level of support is enhanced so the change results in a minimal amount of personal stress for the individual (Smith et al., 2001).

Other researchers used a qualitative technique to examine the effects of emergency service work on partners of firefighters. The semi-structured interview format ensured

standardization in the broad areas explored, but also allowed interviewers to pursue unexpected and unique avenues that were important to the fourteen participants (Regehr, Dimitropoulos, Bright, George, & Henderson, 2005). Findings showed participants were supportive and proud of their partner's work; they nevertheless encountered several challenges. Specific areas of challenge were (a) effects of shift work on family life, (b) transfer of firefighters' reactions to dangerous and traumatic events to family, and (c) social atmosphere associated with the fire service (Regehr et al., 2005). This study partially prompted the inclusion of the partner as the main embodiment of social support for the research question of this project.

Occupational Stress

Occupational stressors for firefighters are multifaceted and will be explored in terms of physical factors, organizational stress and social support.

physical factors. From a review of American Worker's Compensation data, several factors coalesce into potential areas of impairment for physical health for firefighters. Profession-specific injuries are distinctive with firefighters. Burns, heat illness, and cardiovascular illnesses were among the top reported injuries for the 87 000 firefighters injured while working (Suyama, Rittenberg, Patterson & Hostler, 2009). Cardiac health, musculoskeletal injuries, and shift work effects are also challenges in the health of firefighters.

The risk of myocardial infarction during physical exertion such as firefighting is increased for men older than 45years and those who have a family history of cardiovascular disease, hypertension, or diabetes (Aisbett, Phillips, Sargeant, Gilbert, & Nichols, 2007). One American study has shown the risk of cardiac arrest for the firefighter was approximately 10

to 100 times higher during fire suppression than the risk from nonemergency duties; fire suppression accounts for 1-5% of the firefighter's professional time (Kale, Soteriades, Costas, & David, 2007a, p. 1208). Factors to explain this phenomenon include the heat stress of protective clothing, carbon monoxide exposure and most importantly, the cardiac health status of the firefighter (Kale, Soteriades, & Christiani, 2007b). Green and Crouse (1991) noted that over half of the occupational deaths for firefighters were caused by myocardial infarctions brought on by the exertion of fire fighting tasks. This statistic suggests that cardiovascular disease reduction education would specifically benefit fire personnel.

Kellawan, Stuart-Hill, and Petersen (2009) indicate that workers may be more susceptible to heat-related fatigue, illness or injury with ingestion of significant amounts of caffeine. This study reported that firefighters used up about 10 per cent more air from their tanks when they were on caffeine versus the placebo. That translates to losing almost five minutes in a 30-minute period. In a burning building, that amount of time is critical (Times Colonist (Victoria), 2008). These findings are relevant to firefighting where workers are encapsulated in gear during exposure to heavy physical work and/or environmental heat (Kellawan, Stuart-Hill, & Petersen, 2009).

Maintenance of a healthy body weight was found to be significant challenge for firefighters. One study showed for every one-unit increase in body mass index (BMI), there was an associated 5% increased risk of job disability for firefighters (Soteriades, Hauser, Kawachi, Christiani, & Kales, 2008). The intermittent nature of their performance of duty allows firefighters ample time to interact socially, snack too much and be physically inactive (Soteriades et al., 2008).

Firefighting is a physically demanding occupation. Kaleta and her colleagues (2006) found that workers with a higher physical workload often had a decrease in leisure time physical activity (Kaleta, Makowiec-Dabrowska, Dziankowska-Zaborszczk, & Jegier, 2006). Conversely, workers with lower physical workplace demands had adequate leisure time activity and benefited with stronger self-perception and coping skills (Kaleta et al., 2006). Firefighters in one study were found to have relatively low rates of musculoskeletal injury (MSI), possibly due to their physical fitness (Kim, Hayden, & Mior, 2004). Older workers who may experience fatigue faster during night shifts are at higher risk for decreased personal fitness and MSI (Sluiter & Frings-Dresden, 2007).

In 1998, Lautner, a fire chief with US National Fire Academy evaluated the available literature regarding standards for physical fitness and found them lacking. Some of his major recommendations included having an ongoing, testable, fitness program for all firefighters. Having an expert in fitness employed to establish the training of in-house fitness coordinators to give technical support will greatly improve the success of a fitness program (Lautner, 1998). The provision of exercise equipment available for on-duty use is based on the assumption that beneficial health practices are widespread among firefighters, when in fact they are not (Murphy et al., 2002).

Dembe (2009) found work schedules involving shifts greater than twelve hours or weeks greater that sixty hours can adversely affect the health and wellbeing of workers. Shift work including rotating shifts, night shifts, and evening shifts has been shown to potentially endanger workers' health by disrupting circadian rhythms and sleep patterns. This disruption results in stress, fatigue, altered immune and endocrine functions, as well as increased risk for hypertension and cardiovascular disease (Dembe, 2009). People working evening and night

shifts are more likely to report alcohol and tobacco use, feelings of isolation, depression (Scott & LaDou, 1990), sleep disturbances (Lusa et al., 2002), and family problems (Gillespie Roth & Moore, 2009). Proper diet and exercise become a challenge as lack of hunger and tiredness from night shifts come into play (Akerstedt, Ingre, Broman, & Kecklund, 2008; Persson & Martensson, 2006; Takeyama et al., 2005). These issues are all apparent in firefighters.

Table 1 A Partial Listing of Outcomes Associated in the Literature with Sleep Deprivation or Sleep Disorders

Physiological	*Psychological*
Delayed reflexes or reaction time (leading to car wrecks, work accidents)	Academic performance
	ADHD
Reduced vision	Learning/memory deficits
Menopause	Depression/anxiety
Micro sleep	Panic disorders
Decreased cortisol	Impaired judgment
Cardiovascular disease	Risk-taking
Changes in immune functioning	Suicide

Gaultney and Collins-McNeil, 2009 p. 135

Research has also shown shift work can have a substantial effect on workers' moods, behaviour, and social relationships (Lusa, Hakkanen, Luukkonen, & Viikari-Juntura, 2002; Scott, 2000). Some regularly discussed topics among firefighters are the shift lengths and scheduling. A large number of North American fire departments use the 24-hour shift. There is a lack of studies to validate this type of rotation for firefighters. The rare studies that are available look at medical residents or medical transport teams who work in much different conditions. A prospective study of air medic transport teams found the 24-hour shift did not

result in a cognitive decline as is often associated with 12-hour shifts (Manacci, Rogers, Martin, Kovach, Mancuso, &Fallon, 1999). Another study reviewed sleep debt and found that 24 hour workers had a lower sleep debt than 12-hour workers (Frakes, & Kelly, 2005). Outside employment or moonlighting had a great impact for both types of shifts in that reporting for duty within 8 hours of leaving outside employment is more common for 12-hour night shift workers than for 24 hour shift workers (Frakes, & Kelly, 2005). Mock, Wrenn, Wright, Eustis, and Slovis (1999) found no difference in the anxiety levels between a 12-hour a 24 hour emergency medical worker. Jurriaan, Mol, Visser, and Frings-Dresen's study (2004) found the physical demand required for calls for Dutch firefighters was sufficiently recovered during the 24-hour shift.

firefighter organization. The role of firefighters entails a commitment to doing a job, fighting fires, and taking care of communities. Firefighters identified themselves as committed to their job, a job they viewed as honorable and valuable to the community (Lee & Olshfski, 2002). Firefighters are mature adults who are used to learning within a collaborative, instructional communication model (Cragan, 2008). This model follows a learn-by-doing philosophy. Furthermore, firefighter professional culture centers on teamwork and group problem-solving (Cragan, 2008).

The fire service in general is structured as a quasi-military organization (Hokanson & Wirth, 2000; Kaprow, 1991). The paramilitary organizational structure of firefighters gives insight to the profession. Firefighters follow a rigid tree-like communication hierarchy. At the upper levels of the tree, the officers issue orders (Camp, Hudson, Keldorph, Lewis, & Mynatt, 2000). At the bottom of this tree lies the company, teams of individuals who actually engage in the rescue work (Camp et al., 2000). Many of the common terms in the fire service, such as

Captain and Lieutenants were taken directly from the military (Lepore, 2012). Words like code, honour, commitment, and integrity are as important to the fire service as they are to the military. Promotion through the ranks is based on seniority (Lepore, 2012)

Fire service personnel tend to build specific identities based on a range of values and qualities. The importance of the physical nature of their job is central but there is also a significant emphasis placed upon technical proficiency (knowledge of and familiarity with of a range of specialist equipment) and the production of emotional control and restraint (Thurnell-Read & Parker, 2008). Firefighter culture may have affected how participants respond to research queries, an event may be understood as evidence of weakness and this may influence degree of disclosure (Dean et al., 2003).

Overall, the stigma of psychological and emotional issues in critical occupations such as the fire department is not well understood (Robinson Kitt, 2009). Paton (1996) surmises one reason for a lack of recognition and acknowledgment of the existence and seriousness of mental health problems in these occupations relates to personal and professional characteristics. These characteristics result in denial among staff of problems that are psychological or emotional in nature (Paton, 1996). Trauma can generate contagion effects and this effect can extend the circle of impact into the family and surrounding community (Paton, 1996). Recognition, preparation, and treatment for those affected will help alleviate this hidden problem in critical occupations and ensure that, in the course of extending professional assistance to others, the members of these professions do not suffer unnecessarily (Paton, 1996). However, mistrust may exist between the administration and those who are in the firehouses (Monnier, Cameron, Hobfoll, & Gribble, 2000; Murphy, Beaton, Cain, & Pike, 1994); therefore, solutions need to come from the members.

In a related issue, researchers confirmed a link between the intensity of involvement in critical incidents and drinking to cope. They investigated the moderating role of unit-level performance resources on the relationship between workplace critical incidents and problematic drinking to cope. Additionally, a unit member's psychological responses to critical incident involvement may depend on the adequacy of unit-level resources. It may be that more adequate unit-level resources provide an enhanced sense of self-efficacy and mastery (Bacharach, Bamberger, & Doveh, 2008; Regehr, 2009).

social support. Support is desirable and of significant importance to a strong, informal institutional culture in dealing with everyday challenges (Jeanette & Scoboria, 2008). Social support has long been implicated as a strong determinant for effective coping. Social support refers to a variety of material and emotional supports a person receives from others and it can be measured in terms of the structure or function of the relationships. There are two main components of social support for firefighters, home and workplace.

In times of stress, firefighters may draw upon other support resources besides those available at work to help counteract the negative effects of stress (Cowman, Ferrari, Lioa-Troth, 2004). Emotional, physical, and psychological consequences can affect stress levels in the social and home support system (Regehr, 2005) and these supports are vital in the maintenance of normality for stressful public service occupations (Brough, 2005; Cowman et al., 2004). A study from the United Kingdom suggests that high level of social support may play a role in prevention of PTSD (Haslam & Mallon, 2003).

Interestingly, Regehr, Hill, Knott, and Sault (2003) also reported that level of social support and length of time on the job were the most important factors in predicating mental unwellness. Shift work life of firefighters may undermine strong social supports outside of the

workplace, thus leaving them to rely on family and colleagues with similar schedules (Regehr et al. 2003). In fact, experienced firefighters demonstrated notably lower overall social support and report lower levels of perceived support from family and employer (Regehr et al., 2000). American firefighters have one of the highest divorce rates when compared to other occupations (Rawles, 2003).

In looking at families of firefighters, Menendez, Molloy, and Magaldi (2006) used semi-structured focus groups. They found two reoccurring themes: wives of firefighters used patterns of connectedness to other firefighter partners to cope and they felt a constant need to be vigilant in helping their families cope. Regeher, Dimitropoulos, Bright, George, and Henderson (2005) attemped to clarify where areas of stress exsisted in fire fighter families. They found specific areas of challenge were the effects of shift work on family life, the transfer of firefighters' reactions to dangerous and traumatic events to the family, and the social atmosphere associated with the fire service (Regehr et al., 2005). Roth and Moore (2009) also found that shift work impacts numerous aspects of family life, including marital and parental roles, leisure and social opportunities, and home schedules and rhythms. Furthermore, families coped with challenges associated with their loved one's emergency work through negotiating role responsibilities, developing their own interests, giving their family member "space," providing support by listening, and helping the emergency worker process his or her reactions to difficult work (Roth & Moore, 2009). Monnier, Cameron, Hobfoll, and Gribble (2000) examined pro and anti social coping between the firefighter and partner. Their findings suggest use of pro-social coping, instead of antisocial coping, may be most beneficial to those under high stress conditions because of the benefits of gaining and keeping social support when extreme events occur (Monnier et al., 2000).

The occupational environment is another basic component of social support (Brannon & Feist, 2007; Noonan & Wagner, 2010). Relationships between leaders and coworkers as well as relationships intra-workers help each other to attribute meaning to the work environment. Leader-coworker relationships are distinct but related factors that contribute to important organizational outcomes such as overall job satisfaction (James & James, 1989). Interpersonal qualities such as respect, trust, and loyalty are essential components of high quality relationships at all organizational levels, whether among leaders and followers, or among coworkers in groups or work teams (Uhl-Bien, Graen, & Scandura, 2000). Organizational leaders have the capacity to mitigate the impact of specific organizational structures and processes on employee work behaviour and attitudes. Thomas and Lankau (2009) examined burnout by investigating the effects of different types of workplace emotional exhaustion including leader-member exchange relationships, supervisory and non-supervisory mentoring. These relationships affect burnout through the impact of organizational socialization and role stress. They found high quality relationships with immediate supervisors appear to reduce role stress directly and indirectly. Non supervisory mentoring appears to be a conduit for work related social support, by developing environments that make social support readily available to workers (Thomas & Lankau, 2009). Varvel et al. (2007) examined social support and stress in firefighters with five types of perceived support from two sources - peers and supervisors. Findings included that reassurance of worth and social integration from supervisors had the strongest negative association with stress. As well, they found individuals who had low levels of outside support had increased supervisor and peer support, but if the individual already had higher levels of outside support, the effect was not significant (Varvel et al., 2007). Noonan and Wagner

(2010) reported enhancing social support networks within the workplace by building conflict resolution skills, teambuilding, and using the mentoring system were beneficial as a secondary prevention strategy.

Firefighters are afforded the unique opportunity to develop strong relational bonds with coworkers due to the fact that they stay with the same group of three to five members engaging in not only work related tasks but also everyday living activities (e.g., cooking, eating and sleeping) for extended periods of time (Robinson Kitt, 2009). These relationships are often strengthened by the inter-reliance required to effectively respond to emergencies. Due to the unique working relationships and emotional connections among firefighters, higher degrees of work cohesion have been found to be significantly associated with decreased anxiety during emergencies, successful decision making, greater effectiveness in responding to emergencies and coping with post-emergency experiences, and increased psychological well-being (Beaton, Murphy, Pike, & Corneil, 1997; Fullerton, McCarroll, Ursano, & Wright, 1992). Results from Landen and Wang (2010) suggest that only attachment avoidance had a significant negative association with coping. It is possible that firefighters, regardless of attachment anxiety levels, may all have to find ways to efficiently cope with their stress (Landen & Wang, 2010). Work cohesion did not mediate the relationships between attachment and psychological well-being but did mediate the relation of work cohesion and psychological well-being (Landen & Wang, 2010).

Of notable significance is grief leadership, an example set by supervisor or commanding officer that appropriate expression of feelings will be supported (Miller, 1995). The leaders of today need to 'learn to unlearn' outdated assumptions and attitudes and experiment with new frames of reference for seeing and understanding people and

organizations (Sarros, Tanewski, Winter, Santora, & Densten, 2002). It is primarily through the construction of physical, technical, and emotional competence that self-worth is asserted (Thurnell-Read & Parker, 2008).

Health Promotion Research

A small investment of money in screening, treatment, and education of psychological issues can bring substantial productivity gains (Elliot et al., 2004). It is most useful when self-health assessment includes both physical and mental health (Kaleta et al., 2006). By investing in behavioral health training, self-identification of issues and treatment seeking could be enacted by workers through existing employee assistance programs before further deterioration occurs. Reduction of the stigma of mental health issues is top priority to ensure adequate self-reflection and treatment-seeking behaviour (Corrigan, 2004). Mental illness education is also beneficial in the personal practice of firefighters who see the worst sufferers in emergencies (Read, Haslam, Sayce, & Davies, 2006).

A strength-based perspective to crisis response lends hope, encourages capability to manage reactions, and works with existing social supports. It allows the individual to rise to the challenge, utilize skills, and work within support systems in the process of recovery (Slawinski, 2006). Firefighters are used to learning within a collaborative, instructional communication model. Some prefer that their wellness not be subjected to the same approach. Firefighters vary in their discipline to their physical health (diet, exercise, substance abuse, etc.) and they vary in their self-assessment regarding the need for stress debriefing (Hokanson & Wirth, 2000).

Since assessing, evaluating, and then tailoring personal crisis support training for each individual firefighter would be exorbitant, the current researcher chose a strength-based

approach to crisis response and a social support system approach that may minimize harm generated by artificial intervention techniques (Slawinski, 2006). A process of crisis support that is reflective of a person's expressed needs, not created on false needs (Slawinski, 2006), and using a broad holistic view of stress that institutes cultural and organizational changes to support stress prevention (Reynolds & Wagner, 2007) would be most suitable for firefighters. Thus, the background to the research for this particular group of firefighters will be discussed in the following section.

Project Background

In light of the possible benefits of behavioural health education, the City of Prince George Fire Department, located in British Columbia, Canada proactively requested development of in-service workshops for its members. Training in behavioural health provided by the employer highlights the importance of these issues to the organization and follows union guidelines for the members. The International Association of Fire fighters (IAFF; the union representing the firefighters of North America) has increased research into behavioural health for their members since 9/11 and current IAFF guidelines state the memberships' goals are to:

> "Develop a holistic wellness approach that includes:
> - fitness
> - medical
> - rehabilitation
> - behavioral health
> - and will be a long term program that could be made available to retirees" (Health Safety and Medicine, 2009).

Giving recognition for the importance of fire fighter care, the current research introduced a behavioural health program to Prince George Fire Rescue (PGFR) with a focus on increased capacity for maintenance of mental and physical wellness. Health related

constructs delivered via this research included health related self-efficacy, motivation, knowledge, attitudes, and social support. Despite its obvious important contribution to health, physical health was not to be a focus of the research project, but was evaluated independently by the PGFR physician. Alternately, the contribution of this project focused on firefighter behavioural health and consequently, mental health status of the fire service members was included as an important aspect.

The purpose of this research project was to answer the question "What do firefighters and partners feel they need for support for prevention and treatment of fire rescue work related stress"? In order to find answers to this question, a two-phase approach utilizing qualitative methods was taken.

Methods

Philosophical Position

Ethnography is an umbrella concept that forms a self-narrative within a social context (Hammersly & Atkinson, 2007). Reflexive ethnography is a related sub-concept used to analyze how researchers are situated in relation to the people, and the fields of power that constitute the relationships. It is a way to describe the 'situatedness' and partiality of the academic knowledge that results (Butz & Besio, 2009). It seeks to make visible the beliefs and values that the researcher uses, sometimes consciously, that shape interpretations of data. In an interactive context, participants become narrators who improvise stories in response to the questions; it may promote dialogue rather than interrogation. For the dialogue to continue, researchers are required to listen empathically, identify with participants, and show respect for participants' emotionality (Foster, McAllister & O'Brien, 2006; Meekums, 2008).

Autoethnography is a qualitative research method that connects the researcher's personal self to the broader cultural context. Researcher subjectivity is a legitimate lens for examination of social and cultural phenomena, rather than a voice to be exorcised (Butz & Besio, 2009). *Personal experience narrative* is a term coined by Norman Denzin (1989) to describe the sort of representational practice where 'social scientists take on the dual identities of academic and personal selves to tell autobiographical stories about some aspect of their experience in daily life' (Ellis& Bochner 2000, p.740). Autoethnographers are scholars who focus intensely on their own life circumstances as a way to understand larger social or cultural phenomena, and who often use personal narrative writing as a strategy that incorporates affect and emotion into their analyses. In the style of autoethnography, authors scrutinize, publicize, and reflexively rework their own self-understandings as a way to shape understandings of and in the wider world (Butz & Besio, 2009).

A fundamental component of ethnography is field notes (Wolfinger, 2002). It is the researcher's responsibility to catch the interplay of what was said, as well as what was implied and not said (Corbin & Strauss, 1990). Field note taking after each workshop formed the basis of the reflexive ethnography (Butz & Besio, 2009). Observations of members' reactions, body language, reception of information, type of questions asked, and a general self-evaluation of the workshop will be summarized in themes and patterns. A narrative account describing the important themes and social events that define the culture observed was developed in the results section (Collingridge & Ganett, 2008; Denezin & Lincoln, 2008).

Phenomenology as a qualitative means seeks to understand phenomena from the perspective of those who experience it. The interpretive approach is used to examine the contextual features of experiences that may have a direct relevance to practice (Lopez &

Willis, 2004). The phenomenological approach supports a pragmatic knowledge claim arising out of actions and situations as a solution to problems (Creswell, 2003). It is an acceptable starting point to improve health as it seeks to uncover the experiential foundations of human phenomena and enhances the ability to effect positive change (Collingridge & Ganett, 2008).

Interviews are the key mode of data collection in phenomenology. Discussion remains among academics regarding the three interview verses the long, single interview process (McCracken, 1988; Seidman, 1991). Data capturing during the qualitative interview is literally an "inter-view", an interchange of views between two persons conversing about a topic of mutual interest (Kvale & Brinkman, 2009, p. 162) with the purpose of the researcher attempting to understand the subjects' point of view.

Collingridge and Ganett (2008) describe validity as having three subcategories, construct validity, content validity, and criterion validity for qualitative research. Construct validity ascertains that the true underlying idea of well being is measured. Content validity ensures the measurement methods are adequately capturing the construct of interest. Criterion validity looks at the strength of relationship between our measurement tools and other measures of the similar phenomenon. Each of the major techniques used has different ways of accomplishing this. Ethnographers must be sure that observing people and events in settings reflects the environment observed. Phenomenological research must ensure facilitation of free flowing and intensive discussions in order to obtain construct and content validity.

Researchers can enhance validity by triangulating various approaches to form a complete picture or expose multiple dimensions of the issue. Triangulation is also described as convergent validity (Farmer, Robinson, Elliot, & Eyles, 2006). The primary purposes of triangulation are to explore convergence, complementarity, and dissonance (Farmer et al.,

2006). Each of these, in turn, contributes to the overall goal of triangulation, that is, to enhance the validity of the research by increasing the likelihood that the findings and interpretations will be found credible and dependable (Lincoln & Guba, 1985). Using more than one method of data collection from within the same research tradition (within-method triangulation) is an accepted and effective technique (Begley, 1996). For the purpose of this research, multiple dimensions of the issue were explored via the literature review, the interview with the firefighter member and his partner as well as the researcher's reflexive ethnography during the work setting.

Begley (1996) also suggests that using triangulation of communication skills may improve the validity of data obtained and, if clearly documented, increase the credibility of the findings. In particular, when conducting qualitative interviews, the expert use of these skills will enhance the quality and quantity of data gathered. Emphasis will be placed on the observation and use of non-verbal skills in qualitative interviews, which would appear to be where this type of triangulation has most value, by using a research diary to record these impressions (Begley, 1996).

Hargie (2011) defines interpersonal communications as a learned skill, in which the verbal and non verbal are part of the transactional process. Nursing training includes the practice and mastering of these skills; the being aware of and responding to others (Hargie 2011). The researcher's experience guided the interpretation of the non verbal communications of this research.

Phenomenological research must ensure facilitation of free flowing and intensive discussions in order to obtain construct and content validity (Kvale & Brinkman, 2009).

Ethnographers must be sure that observing people and events in settings reflects the environment observed.

locating the researcher. The researcher's own experience can become part of the research process in qualitative methodology. This critical lens shapes the approach, response to the subjects and results that evolve from conversations (Creswell, 2003). Principally, interpretative phenomenologists believe it is impossible to rid the mind of preconceptions and approach something in a completely blank or neutral way. They believe instead that researchers use our own experiences to interpret those of others (Balls, 2009).

This researcher's curiosity regarding work stress and family support arises from personal experience. My career spans ten years working in a midsized regional hospital as a Registered Nurse in various departments, the longest being in emergency in the late 1980s to 1998. Often, my team had cases that were very hard on our coping skills, especially involving children. Two instances however summarize the motivation for this research.

A pre-meditated shooting had taken place in the city. The gunman entered his previous workplace, threatened employees, and eventually shot his ex-supervisor. Since this situation was foreign for our southwestern Ontario city, we listened to reports of disbelief from the scene by the emergency workers while providing care for the victim. A full debriefing team of psychologists, employee health personnel, and physicians arrived later to work with us after the patient was stabilized and moved to Intensive Care. The problem with this debriefing was that none of the nurses felt traumatized by this event. We felt the people at the scene needed this type of intervention instead of us; we were well and untouched by the violence of a single gunshot wound. Management had made this decision for the team without consulting us.

Six months later, the entire emergency department staff assisted in the lengthy but unsuccessful resuscitation of three drowned preschoolers. Because most of the staff had children, some of similar age, and the deaths affected us all greatly. No offer of debriefing or counselling was made. As staff turned to their own support systems for coping assistance, some did not cope well and blamed themselves for not trying harder or working faster in providing medical assistance. It appeared management was uninformed or naïve when critical incident intervention was needed. I do not believe my experience was unique and firefighters must have examples of their own. Thus, I felt it prudent to ask the firefighters and partners what they felt they needed in terms of support for prevention and treatment of fire rescue occupational stress.

The experience of working with the public has shared features across professions. Similar experiences with people sharing the magnitude of suffering they have witnessed allows for mutual understanding (Absolon & Willett, 2005). Having a connection with the subject group allows for easier transition from observer to participant through this research process (Absolon & Willett, 2005) and better understanding of the underlying issues.

Participants

The participants for the research were recruited from Prince George Fire Rescue (PGFR). The fire department union and management requested UNBC involvement and consequently, given the large degree of labour/management support for the project, a substantial majority of the department participated. The participant fire department has approximately 130 members with an estimated 115 on active duty. The participation was limited to active duty members and was voluntary. The workshop pre-empted regularly scheduled training according to the research schedule.

Procedure

Permission for this study was obtained from the Research Ethics Board of the University of Northern British Columbia. In addition, permission was obtained from the Veteran's Affairs Department of the Government of Canada for use of resources/website and from the Mood Disorders Organization for inclusion of its website.

phase one. The intervention workshops were conducted by the graduate student researcher at the respective fire halls, during normal PGFR training schedule blocks. The intervention workshops were based on the Veteran's Affairs (VA) Wellness Kit. Information from the Wellness Kit was presented in a dynamic workshop format utilizing interactive educational techniques such as goal setting, writing, role-playing and power point slides (see Appendix D). The Wellness Kit has 12 modules; four modules presented per hour to a total of three hours of intervention per shift. It was the intention of the researcher to present the workshop in 1.5-hour blocks with a break; however, the presentation of the material had to be fluid according to the needs to the department (e.g., vacation scheduling; emergency calls etc.). The Deputy Chief indicated his desire to facilitate this research by having another station cover calls while the workshop was executed. PGFR has four shifts (A; B; C; D) with each shift divided amongst four halls. A total of 16 workshops were presented over the month of May 2010 on, generally, the first day shift of the four shift rotation.

The Veteran's Affairs Ministry deals with Canada's armed forces as well the Royal Canadian Mounted Police. These professionals and the fire service share many attributes. The Wellness Kit provided professionally produced, researched and free information upon which to base the workshops. Permission was obtained to use the Wellness Kit in this research.

The Wellness Kit modules contain additional resources at the completion of each module. This information from Health Canada was evaluated for fit and if appropriate, included in the presentation of the workshop.

A laptop computer with projector was utilized to display the PowerPoint slides and each member received a take home toolbox binder that included:

- Power Point slide handouts
- Information sheets from Government of Canada health websites
- List of available counselors and clergy in Prince George
- List of websites of interest, such as "Check Up from the Neck up" from the Mood Disorder Association
- Screening tools copies for home use
- Evaluation of the Workshop

Phase One was a reflexive ethnography of the experiences of presenting a workshop based on the Wellness Kit to the local fire rescue members. In treating each workshop as a small group or case study method, the researcher can efficiently create a body of information that is rich in detail, effectual in answering the research question and has some capacity to generalize to the greater public (Yin, 1999). Four types of field notes were made following the suggestion by Groenwald (2004):

> Observational notes (ON) — 'what happened notes' deemed important enough to for the researcher to make.
>
> Theoretical notes (TN) — 'attempts to derive meaning' as the researcher thinks or reflects on experiences.

> Methodological notes (MN) — 'reminders, instructions or critique' to oneself on the process.
>
> Analytical memos (AM) — end-of-a-field-day summary or progress reviews. (Groenewald, 2004, pg. 15)

phase two: personal interviews. During the workshop, a call for volunteers for the personal interview second phase, was introduced. The fire rescue members and their partners were asked to participate separately. An honourarium of $50 was given to each participant. Interviews were recorded, transcribed, and checked for accuracy. Coding and organization of the interview themes was assisted by the NVivo software program.

In all, the researcher conducted 10 family personal interviews out of 22 volunteer families. All firefighters were male and all partners were female. No dispatchers volunteered for this phase. Three families were eliminated due to researcher pre-knowledge of the family. Participants were randomly selected and telephoned until 10 family appointments had been arranged. Of the ten families, one partner declined to participate. The interviews occurred over the winter of 2010 and spring of 2011.

For the purpose of this project, one single interview was used per participant. Interview questions were open ended and flexible to follow narratives as they emerged. In the initial stage, open coding allowed for the development of broad categories, after which selective coding allowed the researcher to develop themes (Regehr, 2005a).

The total number of interviews was determined by the saturation point of the themes emerging. Similar research indicated eight interviews reached the saturation point (Regehr, 2005b) and thus, this research anticipated the need for ten families, or twenty interviews in total. At six families, the saturation point seemed to be approached. Themes were falling into

similar, general areas with little variation. Comments were reflecting the literature review themes as well. However, interviews were completed to the number in the proposal for this project as the literature suggested.

In this research, the partner was the main embodiment of social support. Their views were obtained with interview questions following a semi-structured interview guide that included questions about family situation, the effects of shift work, the firefighter role, specific traumatic events on the family, social supports and social challenges the family encountered, holistic health, and current self-reported mental and physical health status.

data collection technique. In order to collect the data, a one-hour interview with each participant was scheduled. Usually, the couple was home together and was interviewed separately in their home. The researcher was welcomed into the home and together with the participants, decided where to conduct the interview and who should go first. At the commencement of each interview, the researcher began the conversation with an explanation of my role, the primary researcher, to design the study, collect and analyze the data as a partial fulfillment of a Master's of Science degree from the University of Northern British Columbia. Confidentiality considerations were presented to the participant with the reassurance that the Fire Service Management would not be informed of who had participated and would only receive aggregated results. An explanation was then provided for the necessity to audio record the interview and the exact course of action with the data afterwards. The affirmation that the participant could withdraw their consent and participation at any time was reinforced. The participant was presented with the information sheet about the study, local support services information, and the informed consent to be signed. After ascertaining if the participant had any questions, the consent was signed by

both the participant and researcher (See Appendix B for the complete outline of the interview protocol). A dairy was kept post interviews with the researcher's impressions about non verbal cues that occurred during the interviews.

male interview. Discussion followed with an elaboration of the overall research project and the reaffirmation of the researcher's credentials and the IAFF mandate. The official interview started with the two voice recorders being turned on and the informal request to tell more about yourself, where you grew up, and how you met your partner. Men were asked how they got into this field and what qualifications they had when they applied. The participant was then asked to state how long he had been a firefighter and his current position or role at the department. From that point, the discussion of the stress factors faced by firefighters and their personal response to those stressors was followed. The interview culminated in the request for feedback of any issues, concerns or comments that management should know and the researcher could pass on. The researcher did a brief summary of the subjects discussed. The participant then signed the receipt line on the consent form to receive the fifty-dollar honourarium. Interviews lasted approximately one hour.

partner interview. Generally, the interview was private and confidential from the male partner. The partner would move to a different part of the house. A more in-depth researcher introduction was provided to the partner, as, in comparison to the firefighters, they had not previously met the researcher. Upon obtaining signed, informed consent, wives were asked how long the family had been together and when in her relationship her spouse became a firefighter. Questions then ranged into the effect of shifts on home life, the level of support from the firefighter group/city and other partners, as well as any changes noted by the wife about her partner. Again, the interview culminated in the request for feedback of any issues,

concerns or comments that management should know and the researcher could pass on. The researcher did a brief summary of the subjects discussed. The participant then signed the receipt line on the consent form to receive the fifty-dollar honourarium. The interview lasted approximately forty-five minutes.

transcription and data storage. Following the completion of each family's interviews, the digital recording was uploaded to a secure UNBC computer, assigned a participant numbers, and saved in a password format. A numerical identifier was allotted to each family and the letter a or b for the role to establish and maintain anonymity of the participants. The anonymous digital file was then hand delivered to the professional transcriptionist on a memory stick. Once transcription was complete, the file was saved on the same memory stick and handed back to the researcher. No copy remained with the transcriptionist. The data was then backed up onto a UNBC secure computer and the digital copy stored in a locked filing cabinet at UNBC.

analysis of the data. After an interview was transcribed, it was extensively reviewed for accuracy by reading, annotating, and correcting vague areas encountered by the transcriptionist. Once the transcript had been independently read, it was read while concurrently listening to the audio recording to remedy any additional errors. Field notes completed after each family visit with impressions of the family, house, and relationships noted, were also reviewed as the transcript was reviewed. While being faithful to the interview and including all content, even if ungrammatical, expressions indicating participants' thoughtfulness or hesitation were not included (Balls, 2009).

Once all the transcripts had been verified, NVivo 8 was introduced to assist in maintaining organization during the data analysis period. The software was beneficial in

keeping interviews, codes, and themes organized and easily accessible. All of the transcripts were uploaded into the program on a secure UNBC computer and content coding began. Data driven coding was utilized since this study was exploratory in nature and focused on the responses of these participants (Kvale & Brinkman, 2009). No concept codes were created pre-coding in order to allow themes to emerge from the data collected. Therefore, an ample amount of time was spent reading, reviewing, and re-listening to interviews. It was important that the researcher gained an understanding of the essence of each participant's perceptions (Kvale & Brinkman, 2009).

To begin the development of coding, each of the interviews was read again. As identifiable topics came up, they were given a general code. All the men's interviews were coded then the wives interviews were completed. Each interview had the potential to generate a new code and several codes became dichotomous. As the set of interviews was coded, a review of the overall codes was conducted to ascertain if further breakdown of the code was necessary.

To satisfy the rigor of the coding scheme, two coded interviews (one male and one partner), definitions of the codes, and a draft version of the overall emerging themes were provided to two members of the supervisory committee. These researchers independently reviewed the coding and themes. Dr. Harder has an extensive background in qualitative methods while Dr. Wagner researches in this study population. Their feedback provided support for the coding process and further refinement of general codes.

Ethical Considerations

Ethical considerations for this project were few. Confidentiality of participants was ensured via the use of participant numbers and secure data storage. Informed consent sheets

with participants' names were stored separately from interview transcripts. All informed consent sheets and data is kept in locked cabinets and is linkable only through the use of participant number. This information was only to be linked if there is serious and immediate concern for a particular member (as defined by the BC Code of Psychologist and determined by the researcher's supervisor, a registered psychologist). If a member was deemed to be of immediate and serious concern, the researcher's supervisor was to be notified and the supervisor would link the data to the member's contact information. No data collected during this study was ever to be shared with any union member or management of the PGFR, excepting the individual that has completed the interview. While maintaining confidentiality, the researcher supervisor would contact the distressed member directly to discuss the data. In addition, each participant received, as part of their workshop materials or consent, a listing of available mental health resources within the Prince George region. All data is kept in a locked filing cabinet that is stored in a locked lab office at the University of Northern British Columbia; the data will be held for five years and then will be shredded such that only a soft copy of the data will remain. All feedback will be provided in aggregate form and the summary data will be presented, as requested, to the PGFR union executives, members and management.

Results

Reflexive Ethnography of Phase One

The initial phase of the project consisted of the presentation of the behavioral health workshop to the participants. Sixteen workshops were delivered over the course of one month while the members were on duty in their respective fire hall. Management and dispatch assisted the delivery of the workshops by ensuring emergency calls of less than a major fire

were handled by another hall. In total, 65 firefighters, six dispatchers and one administrator received the training. Vacation, sick leave and shift swapping accounted for the slightly decreased number of participants as compared to that predicted. Crews consisted of general members and the shift captain.

locations. The choice to utilize the familiar surroundings of the fire hall while members were on duty was partially organizational as well as practical. The members were expected to be more relaxed in their own environment. However, the main fire hall (Hall One) is attached to the administrative centre, thus the available boardroom was used. The Hall One staff were housed on the second floor, over the truck bay. The boardroom was accessible via a door into the administration hallway and offices. The parking lot for all staff adjoined the local arena in the downtown core of the city. Seven of the workshops were held here as management realized the space restrictions for Hall Two and brought the crews into Hall One.

Fire Halls Three and Four were of a newer construction and design. They contain a large common room, with the provided exercise equipment and free weights, u-shaped kitchen area with table and chairs for 6, lockers, computer with a desk and a small TV. Sleep rooms, the main TV room and the Captain's office, as well as the truck bay entrance ran off this main room. Vertical blinds were employed to regulate light entry. Hall Three is located on a hill, on a semi-private road on the western border of the city. The views from the windows overlook a large subdivision, into the river valley as well as their parking lot. Hall Three seemed to keep the blinds open and the room very bright. Hall Four is built on a busy four-way stop crossroad in a subdivision of the north end of the city. The fact that the passing traffic could see into Hall Four caused the members to draw the blinds more often and made a

darker work area. Both stations had a basketball hoop in the parking lot area. Four workshops were completed at each of these halls.

Hall Two is a uniquely designed, older building located more centrally, on a corner of two arterial roads of the city. A training tower of four stories is available behind the building. The central meeting area/kitchen is very small with a table, chairs, and a small window to the road. Other rooms were off the main corridor as you enter. Only one workshop was conducted here and members drove to Hall One in the fire truck. Hall Two was usually the backup call station while workshops took place in other halls.

Members told me that Halls One and Two were the busiest in the city with Halls Three and Four much more quiet. Members of Halls One and Two informed the researcher they were happy to have the workshops and have another team cover their calls.

presentations. Reviewing my notes after the first three workshops I noted that I was very concerned and nervous. What could an old nurse like me teach these men? Would they just nod and ignore what I said, or could they actually glean something from it? From past experience my presentation speed generally increases when I am nervous. These men know each other very well, and I am unfamiliar with them, their ranks, and general workings of the fire hall.

As the location of the first seven workshops was the headquarters' boardroom, I felt secure in that I was not walking into 'hostile' territory in the fire halls. I tried to ensure three things at the beginning of each workshop:

1. I attempted to establish a relaxed atmosphere. I encouraged them from the doorway to grab a coffee or water and come into the room. I had set up in the room a take home tool box book, additional papers for the

workshop, pens, and the projector for the presentation was on and ready.

2. In order to legitimize the workshop, I stated this was in response to the IAFF's Health and Wellness Initiative and the behavioral health component, paid for by the City of Prince George Fire Management. I also read a quote from a wellness DVD each member had previously received from the IAFF outlining the importance of behavioral health to the profession of firefighters.
3. Lastly, my credentials, experience as an Emergency Room nurse, and master's student and that the research part of the workshop was explained. I dressed conservatively professional and had a name tag from the front desk identifying permission to be there.

Members were occasionally hesitant on approaching the boardroom. Some of the hesitation stemmed from a new workplace policy stating that on-duty members were not to enter the administration side of the building unless they had business there. This unpopular policy seemed to stem from complaints from administration staff about missing personal belongings. As well, the walls in that area were of a portable construction nature and not sound proof. Members made comments when entering the room that they had better "watch what they say" and "not too much fun boys" as the chief and deputy chief's offices were very close by. Some commented they did not care if they were overheard. The receptionist did comment that we seemed to have fun in the workshop and I often inquired about the noise level being appropriate.

general presentation reactions. Most of the seven board room presentations began with members sitting back in their chairs, arms crossed, in chairs farthest away from the front. A few would flip through the pile of material in front of them. Some would comment to the others about the contents of the room or memories about fires the pictures depicted. After my introduction and research explanation, there would generally be a couple of questions voiced. The most common one was "what about calls"? I would remind them that another hall would be covering. The other more seldom question was "if this is voluntary, do I have to stay?" aimed to the Captain. The captain would shrug and I would answer if they wished to stay for the workshop but not be included in my research write up, that they had the option. No one ever left and all but two participants signed the consent form. I would make note of these in my field notes post workshop.

It was interesting to note that in most cases the Captain or acting Captain (AC) set the tone for their crew for the workshop. Their reactions can be grouped into three dispositions, resistant to the training, encouraging about the material, or just indifference. The few resistant captains would be very formal, almost hostile and a "let's get this over with as quick as possible" attitude and the men would remain quiet and leave quickly. One handed back his tool kit book and stated he did not need all of this. The encouraging captains would say something about the importance of this topic, joke with the crew, engage and answer questions. The men would visibly relax and laugh too. The indifferent captains were harder to read by body language, less inclined to write in the book or to engage in conversation. The men of these crews would generally initially look to the captain before answering my questions.

Roughly half way through the workshop, most men would answer my questions directly and not defer to the Captain. I took that as a positive sign that I had established a personal communication link with the members. At the end of the workshop, most times it was the captain who would thank me for coming. Sometimes, it was just a mass rush to get back upstairs, or to lunch. Often the members would chat for a moment or ask me other questions for a few minutes.

In Hall Three and Four, the presentations were quite different. The hall I arrived at was not always aware of my coming. I could usually find the schedule I had provided to the management on the bulletin board at the hall, however, the training details had been missed or not passed on from the night shift crew. I would remind the Captain that another hall was to cover while I was there. While the Captain was ensuring coverage with dispatch, I would begin by setting up the computer. I had to ask one firefighter to retrieve an extension cord from a truck in order to plug in my laptop each time. I chose to use the smaller 'kitchen' table instead of the longer conference table, as generally the conference table was covered in maps and equipment. I did not use the projector as the computer screen was large enough to interact with at the small table. As the men would start to gather around the table, they were encouraged to bring water, coffee or the breakfast they were making, with them. I was offered coffee most times.

The workshops at Hall One would have dispatchers, fire prevention officers or management join in. At Hall Three, we would wait for the occasional dispatcher to drive up and join us. Due to the nature of staffing the halls, in three instances a flex firefighter who had completed the workshop previously was at the outlying halls. They were excused and generally answered the phone or completed tasks in the truck bay. In one instance, a truck and

crew was sent to backup Hall 2 then joined in the workshop. One participant stated he was glad to join in the workshop as he had heard it was interesting information.

I would begin by reviewing the overall presentation topics, the schedule and what was in the Tool kit book for them to take home. I explained the 'keeper' page and how they should write any thoughts or things they learned on that page. The modules for the first half of the workshop tended to be the more theoretical (ex. "what is stress?", "how does it affect the body?", "define wellness"). In an attempt to personalize and engage the members, I asked each one to write a definition of health in the workbook.

analytical memos resulting in alterations in programming. The use of my own post notes and the members' evaluations assisted me in augmenting the workshop for maximum impact. In the introduction, I mentioned the Wellness Kit was designed for police and veterans. After two workshops, evaluations were asking for more specifics to firefighter information. I then included research findings from my literature review specifically to firefighters, such as the report that caffeine usage greatly increased the oxygen consumption from the air tanks while at a fire (Kellawan, Stuart-Hill, & Petersen, 2009; Times Colonist (Victoria), 2008). This sort of specific information became well received.

In one section of the workshop, I planned to complete a role-playing demonstration. The scenario needed partners to discuss a large, luxury purchase and how to finance it. During the first 3 workshops, it was evidently clear that the technique not working. The men seemed to have difficulty taking on the spousal role in the role-play. Instead, I asked them "how do these discussions go at your house"? Members shared the negotiation of the purchase of their truck, boat or all-terrain vehicle with much humour.

At several of the breaks or end chats, members mentioned that use of alcohol could be a significant issue for their members, albeit a difficult topic to engage members to speak about freely. I made sure during my sessions to introduce the self-screening tool about potential alcohol abuse that was provided in the Tool Kit.

Many members seemed to be computer savvy, so I also extended the addictions section to include online addictions in pornography and gambling. I included a personal story of a friend's marriage ruined by on-line porn addiction and that topic brought about many good discussions.

After the first two workshops, it became clear there were no smokers among the firefighters. Dispatch admitted to a few smokers, but they were all trying to quit. Interestingly, after the fourth workshop, one health and safely team member told me about the increase in chewing tobacco in the department. I then included information about the risks of chewing tobacco and spit management. I left smoking cessation in and touched on it quickly with a caveat that recognizing how and where to look for assistance could be used as valuable information for family and the public, if not for the firefighters.

The formality of the workshops was of interest. During the first two workshops I stood for the entire presentation. I felt that this became an issue, as the participants would chat among themselves and not necessarily to me. I began standing for the introduction, signing the consent forms and then joining at the table. Members seemed slightly surprised when I sat down with them. I could encourage more eye contact and a more informal format that would foster a discussion. I would then introduce myself fully, including my background in emergency services and shift work. That flow worked to establish the atmosphere I desired.

One suggestion for stress management in the Wellness Kit was to exercise. I had noticed basketball nets in the parking lots and suggested the members use them for stress management. It readily became clear that it was a public relations difficulty for the firefighters. It was reported that the city had received complaints about members washing personal cars, gardening, completing lawn care or playing basketball while on duty. Some members felt these actions were necessary, especially as a way to relief stress after a 'bad' call. Some felt they had to provide the 'working image' the public wanted and would exercise only indoors. Three captains chatted about the long past practice of playing badminton, ping-pong or Frisbee in the truck bay. Members tended to be very competitive, and occasionally there were injures. It was reported that WorkSafe BC did not want to cover these types of on-the-job injuries, so these activities had to stop. I then began suggesting the use of the provided exercise equipment in the halls as an outlet for stress.

One lasting impression I had occurred when the men began talking about retirement or their retirement "number"; the years served and their age. This would come up very regularly while in the workshop and very vague comments about what they hoped to do after firefighting. Although not applicable for current mental health, I wondered if any retirement planning counselling existed for these men to transition them to retirement life. Most are fairly young, late 50s, to begin retirement.

theoretic notes. The depth and breadth of knowledge from these professionals was remarkable. Several knew the detailed physiological results of stress and how it affects the body. Some understood sleep/melatonin cycle and other sleep remedies I had not touched on. Many had successfully invested in the stock market or real estate. The men were usually

approachable, teachable, and willing to share their own knowledge. They were able to find some item of interest in what I said; they did not profess to be experts in all fields.

Signs of member hyper-vigilance, part of the PTSD diagnostic criteria, were present at the workshops. The appearance of cars in the roadway of Hall Three was a distraction and example of group hyper-vigilance. Several men would watch from the window when cars were approaching the hall. The captain explained why during the interruption. He told me visitors are always met and greeted. Usually, people were lost and asking for directions. A month previous, however, a mother stopped for help with her badly choking toddler. The firefighters were able to assist the child and have him transported to hospital. This made the on-duty officers more vigilant concerning approaching vehicles, to the point of all of them standing and two walking out to the visiting cars. The two members interacted with the people while the others watched from the window. When no apparent emergency presented itself the members inside sat back down and awaited the outside members to return.

Direction seekers did not inconvenience Hall Four. Visitors to the hall were not visible from the main room windows like Hall Three as the parking lot was located behind the hall. However, car accidents at the sloping four-way stop in front of the hall occurred frequently, mostly in the winter. I witnessed members subconsciously listen to the traffic sounds in the background noise while in the workshop. They commented that when they heard a tire squeal, they waited to hear 'a crunch'; this was considered another example of hyper-vigilance. Similarly, in my own experience, nurses in critical care areas listen subconsciously for the heart monitor sounds as they move around the area.

methodological notes. Notes to self were recorded after each workshop. The first week, the notes included reminders to slow my speech down and allow more time before offering an

answer to a question. The reminder of formality of dress and to wear the city name tag was included. Any note about the presentation information was added to the notes section of the respective power point slide. These reminders allowed me to deliver the same material consistently to all the workshops. The time elapsed was noted and compared to other sessions. Generally, the entire workshop was within 5 minutes of the previous one. The only exception was the small group at Hall Three; they chose to skip the break and go straight through as they had a school class coming later. Junior members at all halls are tasked with the public relations duty of presenting for school visits to the hall.

workshop evaluation summary. The post workshop evaluations were an important feedback tool. From those comments, alterations in programming were successfully made. Comments were made about the general information "good information to fit my everyday life", and "about time we talked about this". Coffee/caffeine intake, sleep, money issues, and anger management were the favourite topics noted. Some comments were made about too much content in a short time or vice versa, a longer session would be useful. Some felt it was good coverage of the material while others wanted more details and firefighter specific topics. For example, chewing tobacco awareness was added after four workshops. Most thought they might refer to the Toolkit handbook at another time. Generally, the workshop information and teaching format was found useful, informative and a good training for the firefighter members.

General Findings from Phase One

Several findings emerged from this process demonstrating the need and acceptance of behavourial health information for firefighters.

1. There is value in this type of educational workshop format for this group. The program evaluation tool demonstrated this through the feedback that was received. All but two members agreed to participate in the research component and all members agreed to participate in workshops.

2. Using workshop materials that have been endorsed by Veterans Affairs, IAFF etc. provided an avenue of validity for the workshops and appeared to increase buy in from members. As well, firefighter specific content was very important and helped to increase buy-in to the information.

2. Strong organizational support is required to have good participation. Members are very concerned about how calls are going to be taken while they are participating. Consequently, management has to be on board in order to manage this response issue. Having the union and CIRT team support was also important.

3. Similarly, captain buy-in to the process was considered essential; captains set the tone for the workshop and ultimately determined its value for the members.

4. Workshop content needed to vary according to the requirements of the specific department. For example, the current hall had no smokers, but chewing tobacco was an issue; so, the workshops were required to be adjusted so that they fit the particular needs of the hall. This flexibility created opportunities for a distinctly personal feel to the information provided.

5. Informality of the workshops seemed to be an important component.

6. Recognition and respect for the members' hypervigilance about response must be provided while completing the workshops. That is, if there is a need for the workshop to be interrupted for the completion of response duties, the workshop facilitator must fully respect and appreciate this need.

7. Having insight into the profession was also considered helpful, as it increased the positive relationship formed in the workshop between facilitator and participant.

Phase Two: Personal Interviews Results

Several overarching themes emerged from the interview coding and are identified in this section by subtitles. Following a brief introduction statement, one or more citations of verbatim quotes from the transcripts will allow the reader to understand the context of the discussion. The themes present the occupational stressors experienced with the firefighter role, the family connection and understanding of coping with those stressors. Beginning with setting notes and demographic information, the themes from the men's interviews are presented followed by the findings from the interviews with respective members' partners.

interview setting notes. The City of Prince George was built at the confluence of two rivers. The settlement format of the area has the older sections of town built in the 'bowl' by the rivers, with subdivisions built on the ridges or plateaus beyond this area. The bowl area is subject to atmospheric inversions, which traps the local mill discharge in the airspace and make the bowl a non-optimal living area for those with respiratory health issues (Ministry of Environment, Prince George Air Improvement Roundtable [PGAIR], 2011). Approximately one-half of the families lived 'in the bowl' while the other half lived outside of 'the bowl'; the farthest was twenty minutes out of town. All families lived in single-family homes, several on acreages. Homes were generally neat and tidy. Occasionally, there were children or babies present. All families had at least one dog, either in the house or out. The interviews took place mainly during a weekday, on the member's day off. Two partners met with me over their lunch breaks. Most of the partners were at home, on maternity leave or between shifts

themselves. The interview site was usually the kitchen-dining room with a few in the living room area. The partner usually disappeared into the other areas of the house.

After several home interviews, a pattern of how much 'pride' firefighters seemed to have in the profession was visible via the amount of firefighter memorabilia displayed. The members had experience ranging from four years to 32 years. When asked about introducing themselves to others, it became evident the members were very aware of firefighter 'hero' perception in the community. In two interviews, comments made about "doing the job just to wear the jacket" were in relation to men who seemed enamored with the 'hero' role, the positive image upheld by the public. The researcher began to notice this relationship in the homes. The men who identified passionately with the role were often wearing IAFF t-shirts or hats when we chatted. Firefighter knick-knacks and framed prints were typically observed. A very large, poster-size print was prominently displayed in one home. Two member's IAFF jackets were clearly visible as well. There was a definite 'a firefighter lives here' presence noted. They also tended to be the younger members, but not all cases. The men that seemed to have less internalizing of the firefighter role had plain clothing, no obvious memorabilia or presence of firefighting items, and had pictures of family or fun vacation photos visible instead. These men tended to be more experienced, but not in all cases. Most parked vehicles viewed had IAFF stickers on them, presumably for hall parking identity.

demographic information. All nineteen participants had completed high school, some in Prince George. Several had completed post-secondary education with one completing a professional master's degree. A few had trade courses from the local college as well. Having trade papers or some post-secondary courses is a requirement of applying to the city fire-rescue service. Other recommendations for hiring include air brakes certification, Level Three

First Aid and a fire-training course 'down south' according to the interviewees. One participant noted "that all this education stuff was not in place when [he] got hired, and it is not a bad thing".

It was interesting to note how many men had side occupations or businesses. The shift schedule leaves four days off between rotations. These side employments varied, from retail, to trades, home businesses and general labour. These extra occupations were justified with statements such as; "I like to keep busy", "I worked hard to get my trade papers. I like to keep them up and so I do a few side jobs to keep my hand in it" and 'the extra money is nice for those winter getaways". One participant when asked responded;

> "well, no... I don't work on the side. We have made that a decision in our lives.... It is not like we need the money, I get paid enough, very well, in fact from the city, and my wife has a good job too. It is like some of the guys get greedy or something, like they can never have enough toys ... nah....instead we are enjoying life".

When asked, the partners had mixed responses to the side occupations. One partner stated;

> "He's a hard worker. He always has side jobs. He's just that kind of a person. He's kind of handy that way, or helping people or something like that".

Another partner shared that for their family, it did not make sense for him to have a second job as "the gain was minimal and the family costs high". In another family, the firefighter's extra job brought in more money than she did so "and I'd go part-time sometimes during the winter season when his second job was busy".

However, there were comments rationalizing the extra time away from the family as "it could be worse".

> "You know, you hear people, you know, husbands going away for work. I couldn't handle that. It would be so hard. Like him being on the road for a week or something, or just the shifts worked that some people do. Like permanent night shifts. And they have to sleep all day. And that's like – Oh that would suck"

On the whole, the firefighter population appears to be educated, well-trained and reasonably comfortable with their lifestyle.

Results for Firefighters

Four major themes emerged from the interviews with the members of the fire department. Occupational stress was the largest theme with eight sub codes. The home stress theme and support theme were aggregated with five codes while self-health had three codes attributed. Each theme's findings will be presented with an overall definition and sub code explanation, followed by the most significant supporting quotes. Beginning with the background information and then self-health themes will give insight to the larger, predominant results of occupational stress. In any longer quote, A refers to the interviewer and B to the participant.

background. The background codes gave insight to the firefighter's earlier life. As discussed, the years of service ranged from 1-30 years, while the ages ranged from 20s to late 50s. Previously discussed, but also part of this theme, is the secondary jobs and skills. Some of the men grew up in Prince George or in the north. Most moved later in teens or adulthood for various reasons and two moved here because of the job.

> "I had worked at a mill for a bit and they had a fire suppression crew as well. Did not like the job, the people, not the actual fire stuff so I came back here. While I was working elsewhere, I heard the city was looking.... So I applied and got on."

The competition for firefighter employment is currently very stringent with numerous tests and prerequisite courses. To be a successful candidate is considered an accomplishment; most feel quite fortunate to have obtained the position. Fire training courses seemed to give the participant a decent understanding of the firefighter role. However, first responder tasks are also a large part of the firefighter role. These prerequisites have evolved over the years

and were commented on by the men. The requirement of a 'first aid ticket' is newer part of the prerequisites. One questioned the need for all the education prerequisites, "we are basically paid from the neck down as a firefighter. You're not really paid to think, right?"

> "I always tell guys when they get in, you might as well stop buying lottery tickets if you buy them because you won your lottery to get in, so you need to be proud of what you do because it's definitely a wanted career."
>
> "I had my First Aid for a long time but really never ever used it. So you kind of come in wide-eyed and the tones would go off and you're thinking, Sheesh!... What's going to happen?"

health and fitness. The answers from questions related to health, and days off captured some of the comments related to the personal health and maintaining fitness codes grouped into this theme. Explanations of the profession specific risks of firefighters were also included. Comments were made about the IAFF initiative for health, both physical and behavior health. As well, suggestions for firefighter management regarding wellbeing were considered here. Some respondents shared about family stress but they also talked about the need to exercise and eat well.

> "But I don't think it's gotten to the point I should quit my job though. Or move on. Either way you look at it, we have – and what you did as a nurse – It's a stressful job, dealing with emotions and people and dealing with the calls or certain aspects of it, right? Let alone just dealing with everyday people we work with."

When asked about time away from the work place, the respondents had various responses. Team sports were the largest contributor to personal health. Many of these teams were within firefighter circles. A few mentioned gym workouts. Several shared the difficulties of physical fitness with other commitments.

> A: "You say you do sports on your days off?"
> B: "Oh yeah. Do the treadmill. Do the bike. Lift weights. Play ball a couple nights a week in summer and play hockey at least a couple nights a week in winter".

> "This time of year, we go skiing, do family stuff. We just started going to the pool, with the baby".

Importantly, discussions ensued regarding the level of adherence to personal protection equipment (PPE) required in the profession. Discussion about wearing the SCOTT-pack and personal maintenance of equipment were common. As well, the evolution of PPE in the profession was mentioned by the more experienced men. Also mentioned were the lingering effect of smoke on their gear and the use of saunas to "sweat out the smell" out of their skin. The skin contamination concern linked into concerns regarding occupational related cancers. Other health prevention items such as universal precautions on medical calls as well as seatbelt use were mentioned.

> "I religiously check that stuff. That's my life, right? Some guys can get by with not even looking at and needing it, knowing where it is and how it works. But I always double, triple check it".

> "You still come home and you smell like smoke for a week. The only way to get rid of it is to keep showering two times a day or go into the sauna at the pool and sweat it out. It's in your pores. And you can wear masks all you want. Your hair smells like smoke. And who knows what else".

> "Like, if I'm doing medicals and stuff like that, usually I'll wash it (uniform) at home. But if it's a fire, I wash it right away at the fire hall. And shower, because you don't want that stuff on your body. That's how you get cancer, so – Absorbs through your, like, cuffs and your headband and stuff like that. I think there's five or six cancers covered under WCB (workers compensation board) for us right now".

> "I don't wear my seatbelt, and a lot of the captains don't because you hop in the truck, doing the computer, talking on the radio, trying to get your SCOTT pack on, telling your guys what you want done. I just don't have time. And I know most of the guys have them on. I'm responsible to make sure the guys do have them on".

Most felt the IAFF initiative was a very positive step, especially for physical health. The yearly physicals were welcomed. The incorporating of gym equipment in each hall and

the support to use this equipment was viewed positively by the younger participants. Older participants had mixed reactions. Behavioral or mental health was not as easily talked about.

> "I think I'm healthy. They've implemented a new program in work. We get checked out by a doctor every year. And they take blood work and do some physical tests. That actually makes you feel really good, knowing where I'm at health-wise. Because I wouldn't do that on my own. I would just sit here and wonder about it all the time. Now that they're enforcing it, that's a great, great thing. I hope that sticks around."

> "And that's the one thing I found out very quickly is you don't ever want to let a weakness out at the fire department because it just gets....
> A: Exploited?
> B: Exploited. That's a better word."

When asked, comments to the management centered on several suggestions including the need for more training, in both firefighting skills as well as advanced debriefing practice. Skills to deal with other family on the scene during crisis training was also mentioned multiple times.

> "We can train until we're blue in the face. There's nothing like it until you're in the real situation. And same thing with fire. Fire is the biggest thing. I mean it's great to practice and talk about what you're going to do and everything but when you're standing in front of a real fire, it's a whole other ball of wax."

> "And there are differences, right. You know, like dealing with the family (in a crisis situation), you know, can be a stressful thing and, you know, it's something that, you know, we don't really get a lot of training on, so it can be uncomfortable for some people, you know, to deal with. And sometimes that's as important as dealing with the patient."

occupational stress. Occupational stress involves the general description of anything that can cause eustress or distress about the job. Sub classified into eight sub codes, this was the largest theme for the men. Ideas and quotes from these areas will support the development of the overall occupational stress theme. First, a selection of quotes for general stress of firefighters demonstrating insight into their profession. Development of each sub code, supported with a selection of quotes will follow.

> "You know, in the context that a dispatcher – It's like reading a book. The dispatcher, they hear and – hear everything that's going on and they formulate a picture in their mind based on what's going on, but that's as far as it goes. Whereas we go and we – more like a movie – You're actually playing it out and you see and smell and you deal with it. So, there's different stresses that are dealt with..."

> "Going to medical calls and people dying or whatever, it's tough. Or people hurt. It's tough. And, I mean, they're equally as stressful, but it's a different – it's a different entity altogether. And so, yeah, so, I mean, you know, I never hoped to go and do CPR on somebody for sure, but I would much rather go and put a fire out. But I will say that they've changed the way we get called out now and, in my mind, it's made a huge difference on our stress".

old boys club. Indications of the paramilitary, seniority based, organizational framework was found. Decisions are made and handed down through the ranks. There seems to be a shift away from the older, much-regimented order. As well, it seemed the social facet outside the fire hall has lessened. Some men commented on how experience was necessary to be validated as a leader within the department as well as gave confirmation of their role in the department.

> "I like the old way better. I like the guys hanging around together and having some fun together and – We used to put the word out and, you know, we'd get a roof done or a fence built or a septic field done or whatever. You have some beer and some burgers or beer and pizza. You get a big group of guys together and you could bang up, like a fence or a roof in no time flat and you don't see that as much anymore."

> "Definitely my peers below me, without trying to sound not very humble, they look up to me, you know and I look up to every single person ahead of me in seniority. Which is how it works. And that's the beautiful thing in our job with the seniority. It's a paramilitary rank system. For me in my stages, nothing affects me in that way. I know where I'm supposed to be. I know where I'm at. I know that if I'm the junior guy on the truck that day, I'll be doing the worst job. I know if I'm the most senior guy on the truck, I'll probably be watching the junior guy...."

intra-department stressors and job dislike. General statements about disliking factors in their current job fit into the occupational stress theme. A source of stress for the men stemmed from the internal organization of the fire department. The posting rotation through the city fire halls (each hall has its own characteristics and training advantages) was often mentioned.

> "You know, I think probably shorter rotations would be ultimately better. You know, you're working with different guys. The thing that I find is you get isolated. You just see the four shifts of guys at the hall you're at, so you lose track of everybody else. Downtown, you see more people, so – And there's more guys, so you're almost more in tune to what's going on. When you're at the outlying halls, I think you get isolated and – So, yeah. I think that's one detriment, for sure."
>
> "But the quietness of the halls, I think, is an issue. Somebody working at the Austin Road hall on a long stretch is pretty tough. Especially with our medical requirements now. For EMR, we're required to have a certain number of patient contacts and a certain number of educational training and it may be a struggle for some people at the outlying halls to get those calls."

Medical calls were commonly disliked for various reasons. The men are frustrated with "nonsense calls; people calling 9-1-1 for attention or whatever."

> "A lot of medical calls. A lot of street people calls. A lot of cancelled calls. Like, you get there and they don't need you. A lot of drug overdoses, domestic violence, stabbing. You cover the whole downtown, so you get a lot of crappy calls."

The most common concern was the various personality interactions of the men. Working together so closely often causes friction. Irritating personalities were described as non-productive or "bad attitude" workers that respondents felt that pulled down the whole group. The hall becomes like a second home.

> "Like, it really bothers me that the guys don't respect or appreciate the fact that they're getting paid to be there and they've got a job to do. So maybe they won't take care of the Hall and, you know, treat the place like their home. And they live there a quarter of the year, right? They won't do their own dishes, for example. Or, you know, clean up after themselves or whatever".
>
> "Yeah. But, no, as far as I know, I think it's a healthy environment that way, but others, you know, may not see it that way, depending on how they view things. I mean, you know, there are people that get higher into that job and it's a challenge for them and, you know, I think some people go into it more for the jacket and the shirt to wear outside of the department than the actual job itself."

Participants had concerns about staff management from the head office. The Captains report to the Chief and deputy Chiefs and pass on the work evaluations. Some were concerned that the management did not understand the job the members do. One respondent called them

"pushy" with the decision making. Several mentioned they felt management was quick to discipline and slow to praise.

> "Especially the thing with the head-hunting. It seems to have gotten a little better. They've literally head-hunted a few guys right out of the hall and they were at retirement age. It's not like anybody has ever gotten fired. I'm not asking for anymore 'Atta boy's' or nothing like that. I'm not asking for them to be giving me a pat on the ass every time something good happens, but I think they should be a lot more tolerant to mistakes. That would be probably the biggest thing I'd like to say."

outside of the department relations. Some of the main frustrations of the men were the working relations with the ambulance organization, "the political push and pull between us and the ambulancers". Cancelled calls or late involvement of the fire department in calls was often cited as an irritation. Some friction between roles and attitudes persist, "We are only 'hemoglobin', only good to carry oxygen for them". The fire department has just invested in upgrading the first aid certification, "We're the first in the province right now to do the EMR. It's a step higher." The men stated how they felt underutilized because the ambulance attendants would "take over." They also felt the situation impacted the image of the firefighter to the public, "We often get sent as an afterthought..... which kinda looks bad if we roll up and the ambulance has already done everything". The men did not mention the RCMP very often as their working relationships seem quite well defined in their respective roles on a call.

> "Most of the time you get there, you get cancelled. So you go through the streets, risking your life, snowy roads, and you get there and they're like, you are cancelled. Or you get cancelled before you get there. So, what can you do? It's your job. You got to do it. Sometimes it's annoying."

> "it was about two hundred medical calls a month to about a hundred fire calls a month. So it's a huge part to our job. But I think it's a benefit because it's got us closer to what they do so we better understand them. I think the only thing I find is that we're still not working as efficiently as we could. They still will come and they get information from us. But then as soon as we give the information, it's almost we turn into bodies just to move – you know, help carry patients and get their stuff. You know, they won't utilize us for the skills that we are capable of doing."

likes about the job. General statements about what they enjoy about the profession were also elicited. The unpredictability of each shift and the camaraderie of the workplace were most often expressed. Others mentioned the helping role and making an impact in the community. Some enjoyed the condensed work week and the time off during the normal work day. A couple mentioned the benefits for the family with shift work.

> "Enjoy the best about my job? Never knowing what's going to happen; what the day's going to evolve into"

> "My favourite thing? One favourite thing would be I guess knowing when we did something that helped somebody else out. You get a lot of calls where you don't make a huge impact, but there's certain calls where you do."

role at department and decision making. When asked, members shared how they saw themselves in their position in the seniority of the fire hall. Many discussed the daily tasks to be accomplished. A few saw themselves in a powerless situation, only following orders, "I'm just still the guy that gets told what to do". Comments were made about a lack of power in decision making and a difference of opinions in role responsibility. Captains seem to have the responsibility of decision making for the team and setting the tone for the shift, "you call the shots." Room for advancement seemed limited with a few opportunities in the 'front office'. Reporting of a call via computer reporting was given to all participants, not just the captain. This gave a sense of involvement in the overall call to each member.

> "Like, I even find now, you know – I mean, I think it was always kind of the joke that you – you were – we were basically paid from the neck down as a firefighter. You're not really paid to think, right? You just go and grunt and work"

> "So if we go to a medical call, we as firefighters have to log what we did at the call. So we log the patient and we log the treatments that we did to the patient. And so it's expected that each call is done after they're done. It used to be when it was hand-written; they've kind of downloaded some of the responsibility on the firefighters to do."

impact of shift work. Impact of shift work was the next largest theme with four sub codes. The theme incorporates the physical and emotional effects of shift work. Comments like "but I miss a lot of things too. I miss a lot of weekends" were common when asked about shift work and social events. Lack of sleep or interrupted sleep was the largest physical concern of the shift work effect. A substantial number of IAFF members use the 24 hour rotation while the PGFR uses the four on four off schedule. This debate was brought up during the interviews.

> "Well, it's – I call it rest because really, that's all it is. You know, I mean, again, I don't – I don't go around blabbing that we get to sleep when we work, but I don't hide the fact that we are given the opportunity to get rest and – And that's what I call it because it's definitely not like a night's sleep at home. That's for sure. We're always sleeping with one eye and one ear open, kind of thing".
>
> "I do notice that it is (night shift) affecting me more now than it did in the past"
>
> "With that shift (24hour), depending on your family life, certain stages would be a lot easier, you know. Right now, I don't think it would work very well for my wife if I was gone for twenty-four hours at a time. Pretty tough, right? But in ten years, it might not be a problem".

call impact. Aiding the public by responding to calls may affect a firefighter. Since the goal of this research was not diagnosing PTSD but to inquire about the amount of support firefighters feel they are receiving, questions regarding favorite, disliked or disturbing calls were used. Most felt a fire was their favourite call as that is what they are trained for. Some firefighters did have unforgettable images, smells or calls that had bothered them at one point. It was apparent that the firefighters own stage of family life also impacted on call impact due to dealing with children on a scene. Other disturbing calls were mentioned and resolution of those calls was discussed.

> "I never have thought about it... I always think of diesel as a work smell.... We use it for the trucks and generators, etc. No, not really, Smoke can smell different, depending on what is burning of course.....Chemical fires are the worst because you do not know what is in there..."

> "yeah, the smelly ones (medical calls with body fluids). Those are the hardest ones to forget, the smell, once you get the smell"

public perception. The firefighters were aware of the public perception of hero role. The local media cover most calls and not always positively. How the men introduce themselves to others was a valuable question. Most would not say without prodding they were a firefighter for various reasons, including being humble, raising expectations and generating complaints about the city and taxes. Yet, as previously mentioned, IAFF clothing, ornaments and art were present in a good many homes.

> "You know, I don't – Like I love my career but I don't flash it around. It depends, I guess, on the situation and the nature. I mean, I'll tell people I'm a firefighter and I certainly like the career and I enjoy it that way, but I don't look at it as a status symbol or anything."

> "You know, there's such a stereotype towards firemen, so – Especially with females."

support. Support for the firefighter comes from different sources. The partner does seem to be the main embodiment of social support while the camaraderie and friendships within the department are very close second. In terms of work stress however, within the department the 'brotherhood' is the main support. Extended family and friends also play a part. Support by firefighter members for the individual family was mentioned several times. They would assist each other in time off with shift swaps and in some cases rotation changes. As well, the captain would allow a truck to visit the nearby hockey rink or soccer field so a dad could watch his child for a bit. One rotation covered multiple shifts for a member when his child was having cancer treatment in another city. One unusual area of support came from iPhone technology and the "Fire Department App".

> "Well, you got to talk about it with your crew; especially if you've got a good crew. And it sounds morbid, but sometimes you even get to the hall and you make jokes about stuff. Not about the call, but things – You try to laugh and unwind a little bit and, if you can find humour in anything, you find it. But you talk about it with the guys quite a bit"

> "iPhone's pretty good. You get applications on it – The fire department app ...application. It's got everything you want to know if you're going to a fire or a hazmat call or medical. Like, at night I'll sometimes, if I'm just sitting there, I'll flip to a quiz, a medical quiz and some of it's too much for my level."

The critical incident team (CIRT) exists with colleagues trained in debriefing techniques. The captains are responsible for his shift and to call in the CIRT.

> "A:So do you debrief for the technique that you use at the fire for example, or just how you're feeling about it? Kind of both?
> B: Kind of both. I haven't had to deal with the critical incident stress debriefing yet, but usually after any call, we, as a group, we debrief. Was that their best route to take, driving to the call? Is there anything we could have done differently? Whenever there's something out of the ordinary. The critical incident stress team is more for very major things, and then the captains. You go to a suicide, the captain will usually ask if we're okay, if we want that team brought in or whatever".

One member gave great insight in the critical incident team mandate, training and shared his feelings on it. He discussed how the team travelled to a workshop and actually met Mitchell. He also mentioned some of stigma and main issues of debriefing in his department.

> "And I think part of the reason we probably don't do as much CIRT as we could be is because I think it naturally happens within the halls. It's just the guys generally tend to talk about it. You know, we try to educate our employees to, you know, to watch who you're working with and see what's happening and, you know, if you see somebody acting or reacting differently than they normally do"

Questions regarding the 'bringing work home' and talking about work at home gave insight into what was discussed. Several said they would discuss a 'bad call' with their partner but in a general way. Some men felt they did not want to burden their wife with call details or that she would not cope with it.

> "And the odd time, like I said, I'll come home and talk to X about stuff, but unless it's something really bothering me, I don't usually bring it home. You kind of go into a numb, like, work mode. And when you're working on – And the only time crappy calls, I mean, is for little kids and stuff, when you're working on little kids; car accidents or if you see somebody hurting".

> "I don't – I mean, I don't find it really affects me much. I'm pretty open with my family. I tell them, you know, what I do at work. But I don't, you know – I don't generally go into details. You know, I'll let them know what's happened and if I've

> had bad calls or whatever. I think it's – I think that's important they understand what's going on".
>
> "You know, it frustrated (the wife), but very rarely I'll talk about work. Because do you really want to know what we did today? Do you really want to know the guy that died? And, which I think if she knew that, it would probably make her, but I think so if she knew all of it, it would make her worry. Maybe it's a way of me trying to protect her. I don't know".

outside the home stress. While partners were considered the main social support, questions were also asked regarding the extended family and friends to estimate the entire social network. Most felt the family was supportive of the shift work by being flexible for special occasions. Several stated they "hung out" both with colleagues and other acquaintances off duty. A few stated they do not socialize with anyone from work due to their family commitments. Instead, they socialize with other families of similar stages or their extended family.

> "Family gatherings is always a pain in the butt when you – Like, you feel like you're missing out. You've got to change your meal – Like, if you're working Christmas night, you need earlier Christmas dinner or if you're working Christmas day, when you get home – My kids are used to it".

A question regarding a major family crisis (cancer, stroke or serious illness of a family member) was asked to gauge the response of the extended family. All men stated they think their family could endure a hardship and a few stated they already had a family crisis pass.

Occupational stress with various components was demonstrably the largest overall theme emerging from the conversations. Shift work impact, followed by public perceptions and support, were themes that developed from the interviews.

Results for the Partners

As mentioned, the interviews for the women were shorter and focused on the partner and family stress. The themes built around varying degrees of concern for the safety of the

firefighter and were general concerned with the mental and physical health of the partner. Stability of the job, financial stability and support from the family also seemed very important to the partners.

The largest theme, of course, was family stress. Eight general codes were grouped together to establish this theme. Family stress was loosely defined as anything that helps in family or causes upheaval, change or worry.

Partners were also asked to share their views of the partners' job stress. Questions regarding the office politics and calls that were discussed at home were asked. Most partners stated they tended to hear the funny things that happened and not much else. Insight into 'bad calls' was elicited from their perspective. Most felt the partner kept it to himself or left it at work. The partners identified the 'brotherhood' as a mainly positive influence in the stress of the partner. Many partners mentioned the level of training and well preparedness as well as the team attitude, with the evident need to trust each other in the line of duty. Some partners were more apt to delve into 'bad calls' with the partner due to their own health care profession experience.

> "We talk about his work, but we don't talk about the calls. So, there's been a couple of times where we've talked about calls, that it's less than five that I can think of, where he's kind of come to me and we've talked about a particular call. And I can only think of once where it was because it bothered him. The other times were more, kind of like, out of interest. Something interesting happened, or bizarre or whatever, but it wasn't because he was disturbed by it, or upset by it or anything like that."

> "He doesn't tell me about a lot of them obviously. Just put it that way. Things that he knows will gross me out. Things like that. And I do appreciate that, but at the same time, like I would say, "Do you guys talk about it?" Because you do hear of, eventually, like you get to retirement and it's built up and eventually it will weigh on your mind and it'll... He always says they debrief and they talk about it."

> "Well, they call it "The Brotherhood", I guess. It's the union thing. They call each other brothers. But yeah, it's like a big – I don't know what it is, but it's nice that he's got some close relationships with the guys that he works with and that's important too,

> when you're on calls and stuff that you can trust each other if you have to. And he's got a different relationship with his guys at work compared to, like, the way I am with my people I work with."

Most partners were trusting of the equipment and level of maintenance for that equipment. Several partners in the health profession wondered about the sufficiency of the universal precautions training for the partner. Most partners stated they would not let the turnout gear come into the house for fear of contamination.

> "Things do happen. At the same time, you know, it can happen anywhere. It's not the only dangerous job out there. You do want them to come home every day. And luckily there is that support... the government, they understand there are certain cancers or whatever, but they are expected to always wear their SCOTT-packs".

> "Yeah, the only time I ever thought about it is he has his actual, like, clothes and he would go back to work and he would go wash it in our washing machine and sometimes you just wonder, like, eeeeewww! Where have you been or what have you doing"?

When asked if the job had actually changed the personality of the partner, most attributed any changes to 'growing up or stage of life'. A couple wondered if there were attributable changes.

> "Yeah. I was with him before he started work. His mom says that she's seen a change. If so, maybe a little."

> "That's the thing. I'm, like, well, ever since we got together – He's always been really responsible and very – just very responsible, is the word. Since I've met him, we've done so much. We've built a house. We got married. We've had kids. And it's like, who knows, you know, if it's just him getting hired by the fire hall causes him to be more stressed out."

Fears for the partner's health and safety while on the job were quite evident.

> "He would talk about guys that maybe weren't competent, but they were the guys out holding the street sign. And that was the reason they would go and grab – do that job. But he never told me of an incident that would make me fearful where he was with somebody that he didn't feel that he could help him out or – X got hurt, not hurt, but burned in a fire last summer. That was probably his first injury.

Partners shared their thoughts on the job stability of the firefighter in the city as a source of good stress. Most felt it was a good, stable position while several shared uncertainly regarding the position of low seniority with the city. Once the partner was off 'flex' time, it appeared to be a more secure position in that they had risen in seniority. Once the family had a permanent work schedule, they could plan life a year in advance as one wife stated "He is just waiting for one more movement of somebody and then he'll get a permanent call station. So he's all over the place".

> "You get used to the fact that they might be here and they might not be there, but at the same time we don't know what's going to happen. So, at least when they're on shift schedule, I can look ahead on the calendar and I can plan things."

Financial stability was often mentioned as a benefit of the partner's position as well.

> "I think there's good and bad things. I don't know where to start but I think generally I'm really happy with the job that he has because it's so financially secure, you know. He's got a paycheck every two weeks and he gets a pension"

Mostly, there was little to no fear for the physical safety of the family in the city. Some reported that the partner was sensitive to the risks and sometimes took excessive precautions. Some partners shared that the partner was fairly diligent in teaching the kids about safety and ensuring safe practices at home.

> "There's always that "Yeah, this could be a fire hazard" or "I don't like the little wooden thing near the gas fireplace."

> "Yeah, you see families out biking and often we both comment about how the kids are wearing helmets and the parents aren't. Making sure our smoke detectors work, and the carbon monoxide thing whatever isn't ...That's a Daddy job."

Child care with shift work was a complicated scheduling issue causing stress. Often, the need for child care becomes intermittent and that can be difficult arrange with licensed day care. It was a surprise to hear how many families thought the shift work was a benefit for the children.

> "That's why I'm not going back full-time. I'm going to have to go back casual, I think, so that I can work on X's days off so that we don't have to do daycare, is the thought."

> "We're looking at, you know, part-time work for me or something like that. And then with his rotating schedule, then, you know, child care is a little bit less. And because we have family in town, then it'll be a little bit easier. And because daycare – You know, daycare's usually a full-time thing. They're not – They're pretty strict on what they take, so it's nice for us that we can have family do care, and then working around his rotating schedules."

> "It actually worked really good, for the kids. For us, not so good, but for the kids, really good."

The level of support felt from both the PGFR and family or friends made a difference for the family, "luckily, it is so friendly that there is a lot of support from the other partners or things like that. It would be tough otherwise."

The question of hall rotations or postings was evidently discussed frequently at home. Many partners commented on the length of time, demands of the halls and personality conflicts.

> "Because not only do they have your typical fires and stuff, but they get all the medicals and the ones that maybe make them kind of jaded toward, you know, the ones that make them wonder if they're helping the right people. It can tire them out.
> A: It gets frustrating when you have those reoccurring types.
> B: We always talk it would be nice to maybe if they had shorter hall postings. And also just because obviously not everyone gets along. You know. You're a small group of people and say you end up with personalities that you don't – You do – You're still friendly with them, but you wouldn't mind spending less time with them. So maybe shorter hall postings, instead of one year, maybe six months. Three months probably isn't long enough because you don't even have that many shifts."

> "He talks most of it off but I think there's definitely times where he does bring it home and he's just, you know, grouchy because, I think, because of the personalities that he works with."

Questions were asked about a hypothetical major family crisis and how the family would cope. Most felt they had a strong support network and could pull together to overcome a situation or illness. The social aspect of being part of the firefighter group was briefly discussed. Most partners were proud of the husband's role in the community. Some had seen

the effect of stating his role as firefighter in the 'godlike' status of the men, but were never worried or threatened by it. The other part of that discussion asked if they felt they had to maintain certain look, or level of fitness in order to 'keep' their partner, which again received negative feedback. With a couple of partners, reasons for a high divorce rate in the firefighter population were speculated.

> "Because we've been married twenty years, I think he's like one of the top ranked for longest marriage, in the fire department, to tell you the truth."

> "I think that they (women in the public), some of them, have that mindset – Like, X has told me before. He's gone to a boot drive in his fire gear and they'll go downtown or whatever and collect money at the pub or whatever and he says he'll have girls, like, dropping, grabbing him and – And he said, I could walk in there two hours later in my street clothes and it won't be the same."

Many discussed how flexible they and the family need to be to accommodate the shift worker and holidays. One extended family had several shift workers and was well aware of the challenges.

Another aspect of the level of stress within the family life was asked in regards to what the family does together as a family or with extended family. Several families had extended family in the area to interact with. Others said the kids sports became their "social time". This allowed insight into the overall family coping. It was also interesting to note that two families had children that wanted to follow in the father's profession.

The theoretical question regarding the implementation of the 24 hour shift brought about a general dislike response by the partners. Several thought the partner being gone for a full 24 hours would be a hardship on the family.

The partners also had some comments they wished to share with the management. Several wished for more training, including more live fire training in order to protect the firefighter further. One was concerned with the health support level during a major fire. She

understood that high temperatures at a fire and turnout suits can dehydrate the firefighter quickly and felt more hydration and nutrition opportunities were needed. A few wished for a communication method to ensure the well-being of their partner while hearing of a major incident on the news (such as the local plywood factory fire that lasted three days). Often the partner is required to work later than his shift and several said they were never informed. The duty captain is supposed to telephone the home number but often does not have time. One family mentioned that to inform the partner, the member would send a quick text while on duty, which was against regulations. He felt it important to maintain the partner's mental wellbeing in this case.

> "I would ask the fire department to get the families more involved. It's not at all a family-oriented kind of work place. You know, there's no – I don't think X has any family-related leave or – You know what I mean? There's no sort of focus on family– But I think a lot of wives don't have any idea of the shit these guys see. So I don't know. Sometimes I just – I think it would be nice if the management engaged the families a bit more. I don't even know how that would happen."

The findings with one family were of great interest. When the wife was interviewed several weeks after her partner, it was discussed how the partner had taken advantage of an opportunity to leave shift work. As well, one evening as they watched television together, she moved to get up and he 'flinched'. He seemed in a state of hyper-arousal and they both realized it. Soon after, they made the decision for him to try the new job and it had been a positive experience.

> "Yeah. There's that. You know, our family life. We actually can go – to plan and go to the lake Friday night versus a few weekends over the summer that you weren't working. It seemed like he was home more when he was on his shift work. But he really is home more now, and we're here too."

> "Oh yeah. He had a terrible sleeping pattern. Terrible. He was a night walker and up probably every night. So he has been telling me that lately, he seems like he's sleeping better. So I think it's good, yeah."

Also of note was the general observation that two partners seemed to have more stress issues than the husbands. The one wife continued to ask questions after the formal interview concluded regarding current stress management techniques and how she could assist her fellow employees. She had not seen the workshop toolkit provided to the firefighters with the self-screening tools but said she would pursue it. The other appeared to be in a life stage crisis and the consent resources were provided to her and her partner with much emphasis on the employee assistance phone number.

The findings for the women added depth to the findings of the men. It was difficult to establish a trusting relationship in such short interview time but the partners were generous with their thoughts. Additionally, there was general agreement between the member and the partner on the status of the family.

General Findings from Phase Two

Four general areas of findings were formed from the interviews. Positives from the job, safety, stress and other PGFR related conclusions are described. Both men and partners findings are combined.

positive aspects. Positive or enjoyable aspects of the job were easily identified.

1. Both members and their partners appeared to value and appreciate the job. Most could not imagine doing any other type of job. A pattern of how much 'pride' the firefighter and

family seemed to have in his profession and how much visible firefighter memorabilia was noticed in the homes.

2. The financial and job stability was reassuring for the family and they could engage in long term planning. It was stated the salary allowed for a comfortable lifestyle.

3. A lack of routine in job tasks have made going to work more interesting for the firefighters as every day can be a different challenge. Most stated they enjoyed going to work.

4. Camaraderie and positive colleague interactions were frequently mentioned and funny stories coming home most often. Many mentioned 'the brotherhood' with how close and unique those relationships became.

5. Most families adapted well to the shift schedule and the time off. Some partners enjoyed their time alone and could pursue their own interests. The child care issue was mentioned in regards to difficulty finding part-time care for the children. Some partners changed their work schedules to complement and offset the shift work. Others felt the schedule was beneficial to the family but hard on the parents.

6. Community perception of the firefighting role was very important to the men and families. They felt they have a professional image to maintain, on shift and off. Most men were reluctant to announce their profession but preferred to be more humble in nature.

7. Community impact was also significant to the men in supporting the local sports teams and organizations. They enjoy giving back to the community they live in with examples

including both in-uniform fundraising (Muscular Dystrophy, Burn Fund) and volunteering their off duty time.

8. The helping role was satisfying to the men in their role as first responders. More training in this regard was requested in order to further assist families and bystanders in crisis.

9. Fire calls were the favoured call. These calls enable them to use the unique training and tools for the public's benefit. Satisfaction was derived from a well fought fire that minimized property damage or prevented injury to someone. Their knowledge and expertise in these calls is non-disputable. They are also proud of their quick response time in the city.

10. The ongoing professional relationship with RCMP was appreciated. There is little overlap of skills and little friction between these professions.

safety. Safety was an important discussion as the acknowledgement of firefighting being a dangerous profession came from both men and partners.

1. Fears of contamination, both for the firefighter through inhaled particles and skin, as well as the residual contamination of the family were common in the interviews. Other concerns were raised regarding universal precautions and pathogen contamination from medical calls. Cleaning of turnout gear, equipment and uniforms as well as the use of saunas to 'sweat out' the odours were discussed.

2. Maintenance and use of personal protective equipment was considered very important, especially by the younger members. Both men and partners had faith in the equipment if used

correctly. They felt they had the tools and support to maintain the equipment to a high standard. Two older men mentioned firefighter specific cancers and it seemed these were not talked about openly at work.

3. The importance of seat belt use was evident after one captain shared how he ensures the team wears seat belts during calls. Alarms are present in the truck to remind the members to wear their seatbelts. Most agreed that safety features and considerations for fire trucks have developed greatly over the years.

4. Exercise and physical health was easily discussed. The men were knowledgeable and generally proactive about physical health. Families often exercise or engage in active play together. The men felt supported by the IAFF initiative and the annual physician visit. The chance to use the exercise equipment and work out together on duty was inconsistent, depending on the captain and the training schedule.

stress. Several issues created stress or lack of support for the men and families.

1. In regards to PTSD, no one admitted to dreaming about or reliving a bad call, however, certain smells would trigger memories. Many interviewees said that they had not thought about the substantial impact of smell until asked during the interview.

2. The social network available outside the department had seemingly decreased with less membership in sports teams or "barn-raising" type activities. Some stated they relax with friends from only outside the department or families in similar stages.

3. Mentoring is important and desired from the younger men within the department. Experiences and live time training are useful; however, the request for mentoring in order to increase the self-confidence of the less experienced was expressed. Mentoring can be overlooked in a paramilitary organization.

4. Long rotations (e.g. one year) can be stressful. Some halls have fewer calls making it detrimental to the recertifying of skills, procedures and specific truck protocols. Loss of familiarity with city streets was often reported as a consequence of long postings.

5. Calls that are cancelled, unnecessary and/or avoidable can cause stress. The tones start the adrenaline flowing and some men have a hard time relaxing again so quickly. They were concerned with public perceptions when they arrive at a call 'late' or unnecessarily because of situations outside of their control.

6. A difficult relationship with the ambulance service was reported to create strain, with members feeling their paramedical skills were underutilized. They have had advanced first aid training and feel the desire to institute protocols as they have been taught. The ambulance workers were reported to often override these procedure initiations mainly due to their experience level of performing the assessments required. Few suggestions for improvement were discussed.

7. Personality conflicts within the department can create stress. Working in close quarters for long shifts can be wearisome. Irritating personalities were described as non-

productive or "bad attitude" workers. Some captains reportedly dealt better with these personalities than others.

8. The paramilitary organizational structure can create a feeling of powerlessness. Many felt they just follow orders from above. The captains have the full responsibility of decision making for the shift. For a new captain, the new responsibility can be a stressful sudden change. Extra qualifications and test scores are not used to promote qualified applicants in the same pool, only seniority. This process increases the length of time till promotion for some members.

9. The shift work schedule means missed family events and other opportunities. Some families are more understanding and flexible than others. This odd work schedule can cause stress for the partner as she sometimes reportedly feeling like a single parent. The firefighters also reported occasionally feeling as if he was "missing out".

10. As the firefighter ages, nightshifts reportedly get harder. As well, job duty complexity increases with seniority and performing increasingly difficult job tasks well when feeling tired can be stressful.

11. Sleep disturbances, even when off shift, were seen as frustrating. It was difficult to 'turn around' quickly, especially for older members. Families had to be supportive of napping the need to rest seemingly affected family daily living, such as small children needing to be quiet.

12. The trauma of child related calls, especially if related to one's own stage of life was a constant stressor. Respondents felt 'lucky' if they had not had to deal with those situations. In a small town scenario like this department, there was always as chance the victim was someone familiar.

13. Negative media coverage stressed the firefighters. From response times, to criticism that they had neglected to prevent property damage in a fire, to the publishing of the overall budget of the city, they were concerned how they were perceived to the public. They felt they had to maintain a professional image while in uniform and in the community.

PGFR related conclusions. PGFR related findings including mental health discussions, newer technology, specific trainings, and the 24-hour shift are issues described here.

1. Members tended to avoid discussion about mental health. This seemed to be a difficult topic for them. The IAFF initiative gave validity for this subject and greater acknowledgement of behavioral health is encouraged.
2. Members expressed concerns about showing any weakness, physical or mental, as weakness would potentially be exploited in the hall. They offered their opinion that their management was too quick with discipline, and too slow with praise.
3. Members felt that stress debriefing happened naturally within the hall and that this natural debriefing helped to explain less use of the formal debriefing team and/or sharing with spouses. Many spouses were content not to know the details of calls.

4. Advances in technology (e.g., iPhone apps, GPS) were seen to be very helpful in improving knowledge and service. The younger men were especially interested in integrating these technologies into their workplace.
5. Little support was evident for movement to a 24-hour shift by either the men or spouses. Most felt it would be too much time away from home at once. Many were concerned with the loss of camaraderie in a 24-hour shift rotation as well as it being detrimental to performing their tasks on such a long shift.
6. The most expressed request to management from both groups was the desire for more live fire training. Each fire call is unique with multiple factors affecting it. They felt extra practice would allow for increased problem solving for unique conditions, potentially saving lives.
7. A formalized system for letting families know the status during a long or dangerous call was anticipated to be a way to alleviate stress for the families. Some members sent quick texts to the partner; however, this was not an approved communication method for this purpose.
8. Captains set the tone for the shift; ongoing training regarding effective leadership may be very helpful for these very important leaders. It may also be beneficial to train captains to recognize behavior that may indicate need for mental health intervention.

Discussion

The research question of "what support do firefighters and their partners feel they need for the prevention and treatment of fire rescue occupational stress?" has been examined. The researcher's own experience became integral to this research process. This critical lens shaped the approach, responses to the subjects and interpretation of results that evolve from conversations (Creswell, 2003). One benefit of the researcher's experience was demonstrated by the perceived ease of conversation with the men in group form as well as individually; this ease of conversation was not evident with the partners as the researcher did not share their backgrounds/experiences. General recommendations will be presented in regards to support recommendations and organizational recommendations.

Support Recommendations

Overall, the men were enjoyable to work with in Phase One. They were on-duty, in uniform and their professionalism was evident. As the literature predicted, the paramilitary organization was witnessed when the captain set the tone for the workshop. Initially, they were reluctant to admit they might need instruction in behavioural health, but eventually most stated they learned something new. Some were very knowledgeable about specific topics. As the workshop become less formal and interactions began, the camaraderie emerged in most groups. They interacted in a very familiar way as evident in teasing and joking.

They considered themselves a unique profession and any mention of another professional group would lose their interest in the current topic. Ensuring material presented contained firefighter specific content and incorporating suggestions from participants into the next workshop assisted to maintain their attention.

The general overview workshop was a good beginning place for the firefighters. It reaffirmed the need to discuss behavioral health. One respondent stated "perhaps it will be acceptable to talk about this stuff more now". It would be prudent to incorporate a mental health checkup with the yearly physical as well. The medical staff could include a few screening tests while testing for physical health. The ease of conversation encountered during the workshop would indicate this group of firefighters can learn in a group environment. However, the PHLAME study showed that, despite value in group interventions, the greatest incorporation of personal health changes occurs on a one-to-one basis (Elliot et al., 2004).

The literature shows firefighters have always depended on comrades, officers, and their families for support as well as training or exposure to all possible factors in an emergency (Hokanson & Wirth, 2000). Ongoing professional training and recertification of skills would be most suitable for firefighters and doing this systematically, with protocol, seems inherently sensible. The prerequisite live fire training courses seemed to give the rookie a basic understanding of the firefighter role. However, the desire for further training in live-fire scenarios with current teammates was an often-heard observation, both in the workshops and in interviews. In addition, increased first responder tasks are now a larger part of the firefighter role. The prerequisite first aid certification before hiring usually involved non-emergency applications, thus placing stress on the rookie until enough 'live' emergency experience is garnered. Most of the nineteen respondents mentioned further training for the firefighters. Increased knowledge regarding universal precautions, antibiotic resistant bacteria "superbugs", interventions for diffusing mental health crises, and skills to deal with distressed families or bystanders were areas identified by the researcher that could be expanded for the department. Smith et al. (2001) highlighted the need for a very active skill maintenance

program with a variety of methods to aim at maintaining both confidence and skills in the first responder role and evidence of this was present in the interviews.

The literature demonstrates creating social support links into the surrounding, larger community may be beneficial to firefighters so they can engage in social interactions with others with similar interests (Noonan & Wagner, 2010). Shift work's social impact was an emerging theme. Connection to the general community can be complicated by shift work as well; experienced firefighters demonstrated notably lower overall social support and report lower levels of perceived support from family and employer (Regehr et al., 2000). This could be caused by the shift work life of firefighters, leaving them to rely on family and colleagues with similar schedules (Regehr et al., 2003). The apparent importance of benevolence in relationship to firefighters' mental health may provide a positive avenue for intervention (Wagner, McFee, & Martin, 2009). Specifically, such interventions might take the form of attending situations that involve philanthropy (e.g., volunteers in children's sports) and the extent to which they are choosing to help one another as well as others outside of the department (Wagner, McFee, & Martin, 2009). Programs rewarding volunteer hours could be added to acknowledge the positive impact of volunteering, encouraging social interaction in the larger community, as well as refinement of personal management skills (Pound & Moore, 2004).

American firefighters have one of the highest divorce rates when compared to other occupations (Rawles, 2003) and the partners of this study were aware of this fact. The partners' findings echo Regehr's work in their themes of concerns for the health and welfare of the partner. Partners in this research commented on the need for more department wide family events that could encourage a family social support system to arise. Some also wished

for a formalized system for letting families know the status during a long or dangerous call if a major catastrophe was occuring. Perhaps technology could be of use to the firefighters to send a quick text to their loved ones, especially if they are going to be late.

There was little sign of vicarious traumatization from the firefighters to the partners. Partners felt they were shielded from the harsh details of the job by the firefighter. Most call debriefing happened at work and little came home. Partners would hear about the humourous interactions or the personality conflicts between team members. However, at the workshops, the dispatchers displayed a higher level of secondary traumatization. The department needs to ensure dispatchers are involved in debriefing, even for their organizational role in calls. A few families felt 'over protected' by their firefighter, a possible reflection of his world assumptions (Wagner, McFee, & Martin, 2009). Most partners felt more training in all aspects of the firefighter role would give support and confidence to the partner to lessen occupational stress. One wife's concerns regarding nutrition and dehydration during long or intense fire calls was very enlightening and should be investigated by the department physican for comment. Regeher, Dimitropoulos, Bright, George, and Henderson (2005) found specific areas of challenge were the effects of shift work on family life, the transfer of firefighters' reactions to dangerous and traumatic events to the family, and the social atmosphere associated with the fire service (Regehr et al., 2005). Roth and Moore's (2009) findings that shift work impacts numerous aspects of family life, including marital and parental roles, leisure and social opportunities, and home schedules and rhythms were certainly echoed in the current interviews.

Current literature shows firefighters as a profession are reluctant to discuss mental illness or behavioral health. Studies have demonstrated firefighters are used to learning within

a collaborative, instructional communication model. Firefighters vary in their self-discipline to maintain their physical health (diet, exercise, substance abuse, etc.) as well as they vary in their self-assessment regarding the need for stress debriefing (Hokanson & Wirth, 2000). Some prefer that their wellness not be subjected to the same approach. Thus, a proposal of rotating two to three mid-level experience members from each shift through the CIRT team training and subsequently serving on the team for one year is a way to "normalize" call impact discussions and maximize training dollars.

One unusual area of support found was iPhone technology and the "Fire Department App". This is interesting as the department appears slow to embrace GPS and other computer technology. Here, junior firefighters are able to access condensed information that the captains had to learn by years of experience and several courses. The use of web search, texting and social media by on-shift workers could become an ethical and privacy issue for the department. Instead of banning it, polices regarding technologies' appropriate usage should be developed and explored to benefit the members and families.

The internal occupational stressors of intense personalites and different skill acquisition per hall warrant the suggestion of shorter hall rotations. In shorter rotation, each member would cycle through the three types of halls (Halls three and four are similar) in one year. This would ensure retention of city street maps, the equipment skills particular to each hall as well as maintaining the call volume for medical skill retention. It would also limit the 'irritation' of working very closely with the same team for an extended time period. Most respondents wished for four to six month long rotations when discussed.

Retirement planning counselling could be provided for senior members to assist in the transition from the intensive social support currently available to the potentially socially isolated retirement lifestyle.

Organization Recommendations

The establishment of a broad, holistic view of stress that encourages cultural and organizational policy changes to support stress prevention is highly encouraged for the PGFR (Reynolds & Wagner, 2007). Continued support for physical health with the medical yearly visit and the routine use of the gym equipment seems to be most readily accepted by the firefighters. Organizational changes such as more open communication with management and increased positive feedback are also recommended. As well, using the firefighters and their experiences to brainstorm solutions for issues of the department, be a think tank, within the department should be considered. In the corporate world, managers use rewards for valuable employee suggestions to improve a process in the organization (Bartol & Srivastava, 2002). This may assist to alleviate the 'powerlessness' felt by the members in the decision making process.

Outside the department relations must be improved as well. Some difficulty arises in that the ambulance is provincially mandated and the fire is city managed. The certifying of the firefighters in emergency responder protocols and skills has threatened the ambulance workers and is creating a perceived 'turf' war. Firefighter training includes doing initial assessments and giving first line medications following their protocols, similarly do the ambulance attendants. There is often unnecessary tension as to who begins the protocols when they arrive at similar times. Several men mentioned speculation about the rationales for the late call or cancelled call phenomenon. One hypothesis for this phenomenon put forward was

that the system dispatchers are in different physical locations. While PGFR dispatch is located in Prince George Hall One, ambulance dispatch is physically located in Kelowna. This causes communication gaps in deploying the crews and in the appropriate tiering of the response to an emergency, as ambulance dispatchers are not familiar with our city. City council, PGFR management, the IAFF, the local ambulance, and provincial ambulance representatives must meet to discuss the best utilization of personnel and skills. Resources are scarce and must be used to the fullest possible advantage for the public.

Hokanson and Wirth (2000) rationalized that the fire service has many automatic procedures that are designed to protect the physical health of the personnel. These are not questioned by firefighters. In light of the term 'mandatory' being somewhat controversial, it is recommended to change this term to *"automatic"* with five potential traumatic events triggering a debriefing (Hokanson & Wirth, 2000, pg. 255). Any incident or situation that the captain feels may require the department CIRT team intervention should be encouraged as well. However, casual veteran-to-rookie chats need to be spontaneous and automatic as well.

The current critical incident response team in PGFR consists of a few volunteers, however, critical incident debriefing training and practice would benefit all members. Also for consideration is the addition of two or three dispatchers to the team. They also have call impact and need to debrief. Additional training in awareness of burnout/non-functioning personal coping for the CIRT team or captains is also warrented due to the recent job description change with the increased level of first responder protocols (Smith et al., 2001). The rationale for those members to be CIRT trained primarily is they may benefit personally from the training and the experience of leading debriefings. That experience could carry into the expanded captain's role as well and institute the automatic, spontaneous chats desired.

Further Research and Limitations

Corollary questions for further research emerged in this study. Further assessment of these firefighters using detailed interviews and prospective, longitudinal methods may provide insight into the coping behaviors essential for the firefighters to function following a traumatic situation. This would provide knowledge that would benefit both firefighters and other populations (Del Ben, Scotti, Chen, & Fortson, 2006). Regehr, Hill, Knott, and Sault (2003) reported that level of social support and length of time on the job, were the most important factors in predicating mental unwellness. However, Wagner, McFee, and Martin (2010) found no links were evident between years of service and posttraumatic/mental health symptoms. Chamberlain and Green (2010) report that older firefighters had more psychological distress but not higher levels of posttraumatic stress symptoms. These authors attribute this to cumulative exposure and events outside work contributing to distress in firefighters (Chamberlain & Green, 2010). In this research, an indistinct pattern of the length of service time and possible suggestion of empathy burnout conditions existed, similar to the researcher's experience in nursing. Speculation of family commitments and stage of life as causal factors or the occupational burnout spilling into the family life are two hypotheses. Alternately, what role does the slow evolvement of responsibilities in the role of the firefighter play in 'burnout'? Another potential area for research involves examining the use of self-efficacy verses the collective efficacy of the team for health promotion based on the level of social support found within the department.

This research is unique in the current literature. Not only were the firefighters engaged in a group as well as individually, but also the partner's views were used to triangulate

findings. Other studies worked with the partners and families only. Few studies looked at firefighters on-duty, and also, individually off-duty.

The present study had several limitations. First, the sample was collected from participants working and living in a small city in Northern Canada and, therefore, may not be reflective of those working and living in other situations. However, it is suggested that the present results may not be limited by the sample in that the traumatic exposure of members in large urban centers is often intensified, likely magnifying any differences (Wagner, McFee, & Martin, 2009). Secondly, the present study includes a convenience nature sample, a sample that was not directly matched for age, socioeconomic status, etc. but rather, was drawn from volunteers. Furthermore, it is possible that the firefighter sample used in this study is not representative of other firefighters with respect to traumatic exposures and/or other variables. For example, the participant fire department did not have any female service members; therefore, cannot be considered reflective of the current fire service as a whole (Wagner, Martin, & McFee, 2009). Finally, the present findings provide a look at firefighters' opinions and, consequently, cannot be used to determine causal connections.

Conclusions

Occupational stressors facing firefighters have been described and subsequent suggestion of possible assistive strategies presented. Qualitative research methods provided a rich dialogue with participants. The researcher's background and experiences provided a unique lens to view the themes that emerged from the dialogue with firefighters and partners. The utilization of more than one method of data collection from within the same research tradition (within-method triangulation) provided validity to the findings.

Health promotion theory was used to assist people to maximize their health potential through various routes; while educational interventions such as the workshops presented are favoured, they are not always the most effective or appropriate means of maximizing health potential. Researchers have also linked a high level of social support with healthier living (Brannon & Feist, 2007). The comaraderie found among the PGFR and their families supported this finding.

The present project provided integration regarding qualitative research of behavioural health with fire service members and their families. It is important that, if the wife is the main body of social support as suggested here, that her assessment is also obtained. Creation of family social interactions was also desired to improve and maintain the wide social net of the department.

Themes evolved in defining and framing occupational stress for this group of firefighters. Intra and inter-departmental interactions formed the largest area of stress for the men. The shift work, occupational hazards and call impact effects are partially mitigated by the social networking that exists. Typically, the firefighters and their partners believed the current level of support within the fire department was sufficient for the prevention and treatment of occupational stress. However, they did have suggestions for potential improvements, such as increased training in several areas to augment the existing training, safety, and confidence of the men. The literature and the researcher's own experience suggest their recognition of occupational stress is insufficient and discussions with firefighters and their partners regarding behavioural health needs to continue.

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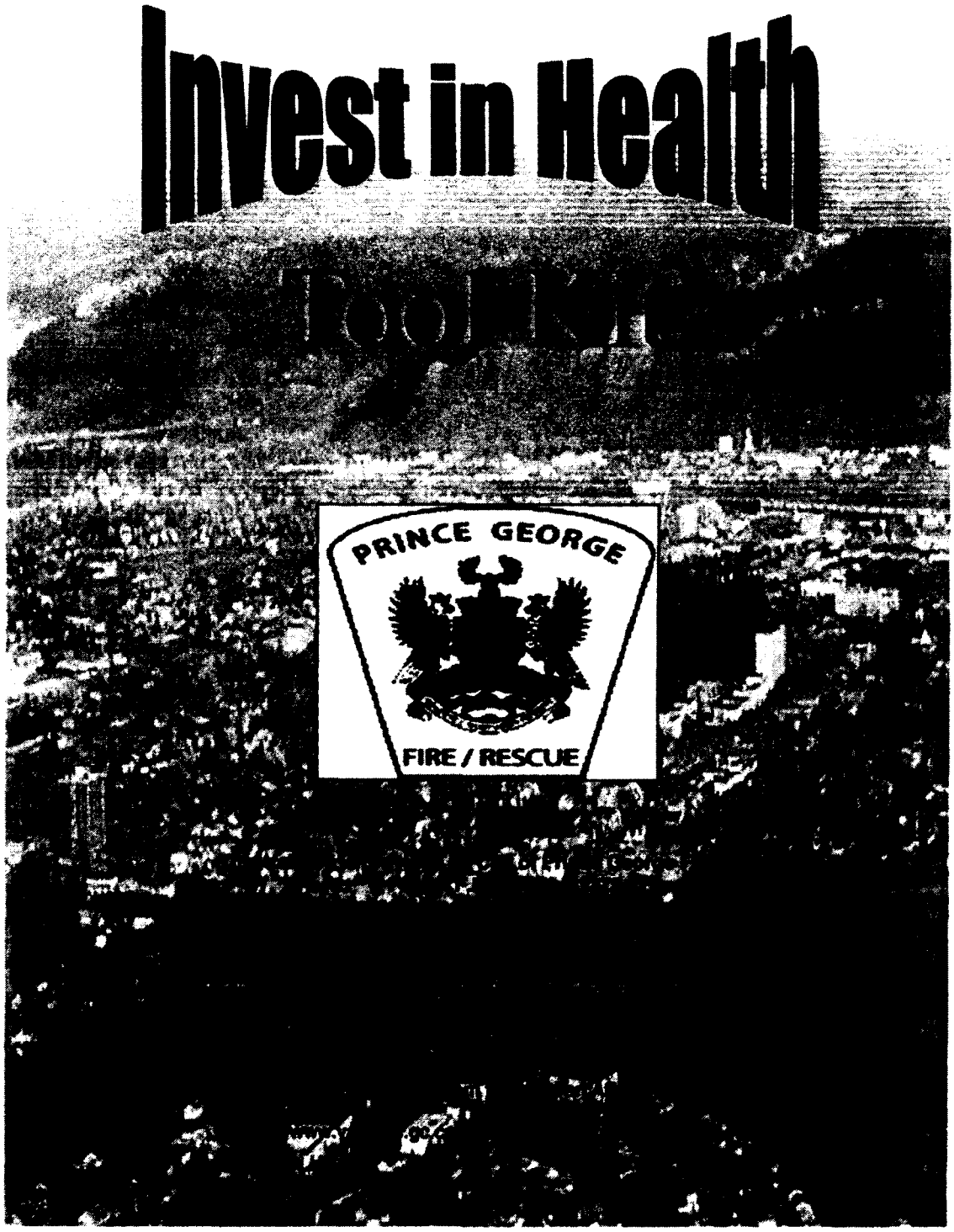
Appendix A

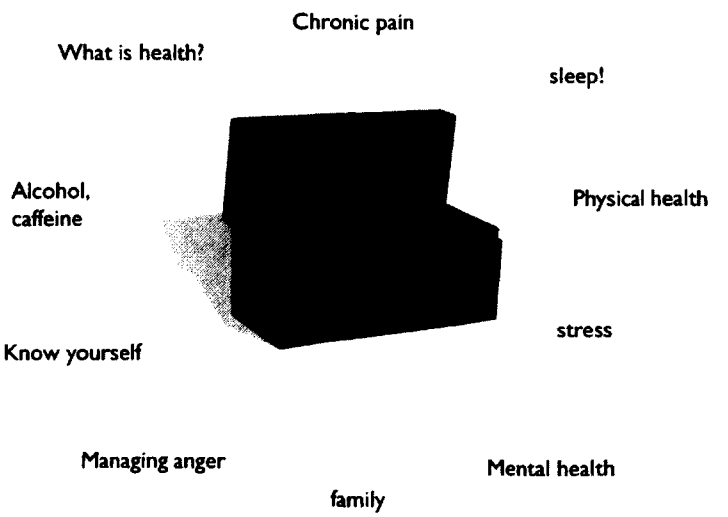


Invest in Health

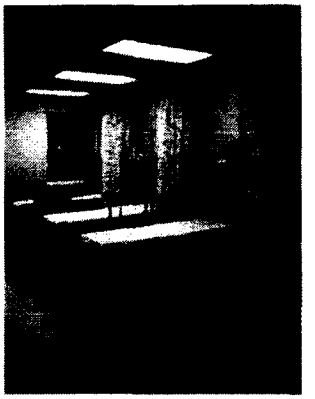
This training is provided by City of Prince George Fire/Rescue

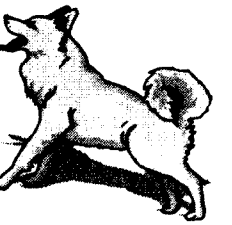
I.A.F.F., LOCAL #1372

Based on materials from The Wellness Kit provided by the Government of Canada from the Veteran Affair's website- http://www.vac-acc.gc.ca/clients/sub.cfm?source=health



Introduction





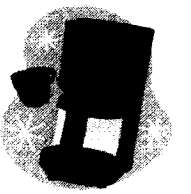
Plan:

First hour:

- intro
- 1. Being Active
- 2. Healthy Eating
- 3. Nurturing Mental Health

Second hour:

- 4. Creating a Family Budget
- 5. Managing Stress
- **Coffee break**
- 6. Coping with Pain
- 7. Managing Angry Feelings



Last hour:

- 8. Resolving Family Conflict
- 9. Taking Action on Addiction
- 10. Not Smoking
- 11. Getting a Good Night's Sleep
- 12. Evaluation

Let's define....

What is health?

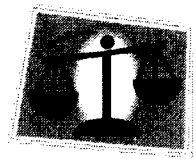
Your answer_____

What is stress?

Your answer: _____

Health is:

More than just the absence of disease



a balanced life through the combined use of our physical, mental, spiritual, social and material resources

Stress is:

a specific response by the body to a stimulus, as fear or pain, that disturbs or interferes with the normal physiological equilibrium of an organism- Webster's Dictionary

Physiology students know it as:

The **hypothalamic-pituitary-adrenal axis** (**HPA or HTPA axis**), also known as the limbic-hypothalamic-pituitary-adrenal axis (LHPA axis), is a complex set of direct influences and feedback interactions among the hypothalamus (a hollow, funnel-shaped part of the brain), the pituitary gland (a pea-shaped structure located below the hypothalamus), and the adrenal (or suprarenal) glands (small, conical organs on top of the kidneys). The interactions among these organs constitute the **HPA axis**, a major part of the neuroendocrine system that controls reactions to stress and regulates many body processes, including digestion, the immune system, mood and emotions, sexuality, and energy storage and expenditure. A wide variety of species, from the most ancient organisms to humans, share components of the HPA axis. It is the common mechanism for interactions among glands, hormones, and parts of the midbrain that mediate the general adaptation syndrome (GAS).

Psychology students know it as:

Dr.Hans Selye, who coined the term "the non-specific response of the body to any demand for change".

How to achieve the balance:

Lets begin...

1. Being Active
2. Healthy Eating
3. Nurturing Mental Health
4. Creating a Family Budget
5. Managing Stress
6. Coping with Pain
7. Managing Angry Feelings
8. Resolving Family Conflict
9. Taking Action on Addiction
10. Not Smoking
11. Getting a Good Night's Sleep

Being Active

Building physical activity into our daily routine is an important part of maintaining and improving our physical and mental health. *Canada's Physical Activity Guide*, recommends that we:

-choose a variety of activities from each of the **Endurance, Flexibility and Strength** activity groups

-start with 30 minutes of Light effort every day. You can do this all at once or in three 10 minute sessions. As you progress to Moderate effort activities, your time can be reduced to 30 minutes, four times a week.

-being active should be part of your daily routine no matter how old you are, where you live or what your current lifestyle is.



Strength

2 – 4 days a week

Activities against resistance to strengthen muscles , bones and improve posture

Such as: weight lifting, hiking, sit ups/chin ups resistance bands



Endurance

Aim for 4-7 days a week

Continuous activities for your heart, lungs and circulatory system

Take the dog for a short walk three times a week and gradually increase to five times a week. If you don't have a dog, walk anyway!

Think of an activity you would like to do for the first time - and try it!

Take the stairs instead of the elevator. If there are too many stairs, walk up one flight and take the elevator the rest of the way. Gradually increase your stair climbing.

Use the hiking trails and bike paths available in your community.

Play active games with your kids like soccer or hide-and-seek.

Take a walk, play basketball, catch a baseball instead of drinking coffee on your next break.

Flexibility

4-7 days a week,

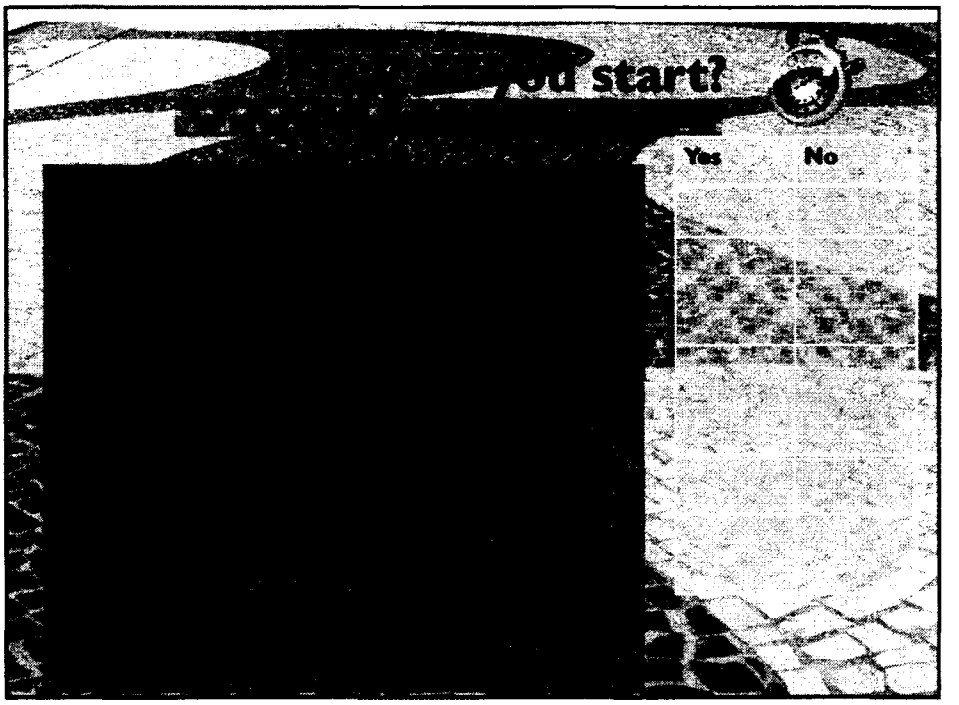
combine with endurance pre and post...

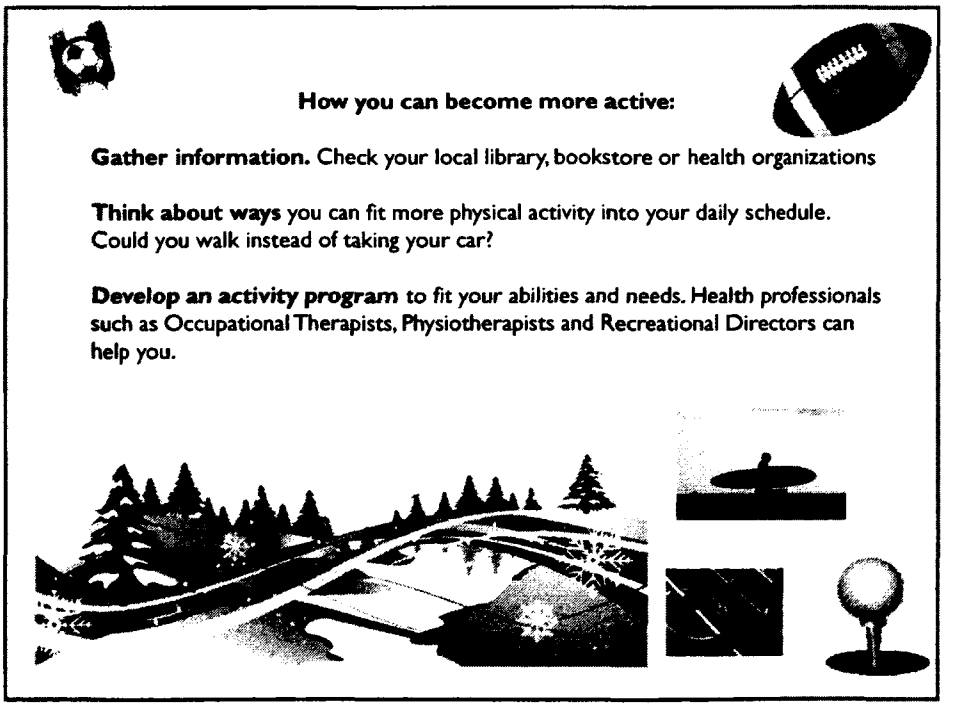
gentle reaching, bending and stretching

try an activity like: Tai Chi or Yoga, Martial arts like judo or karate, swimming, water polo

All have stretching, flexibility, combine low-impact, fluid movements and are great ways to relieve stress.

Try some light gardening, raking, or house cleaning like vacuuming
And check off the TO DO list...✔


start?
Yes
No


How you can become more active:
Gather information. Check your local library, bookstore or health organizations
Think about ways you can fit more physical activity into your daily schedule. Could you walk instead of taking your car?
Develop an activity program to fit your abilities and needs. Health professionals such as Occupational Therapists, Physiotherapists and Recreational Directors can help you.

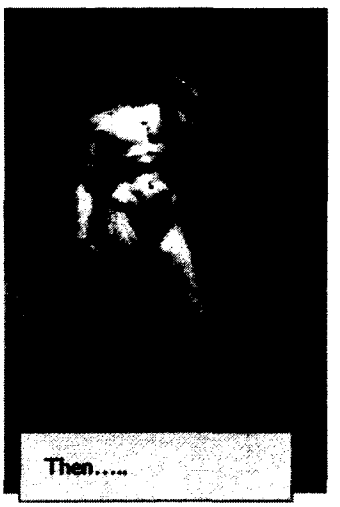
Goal writing

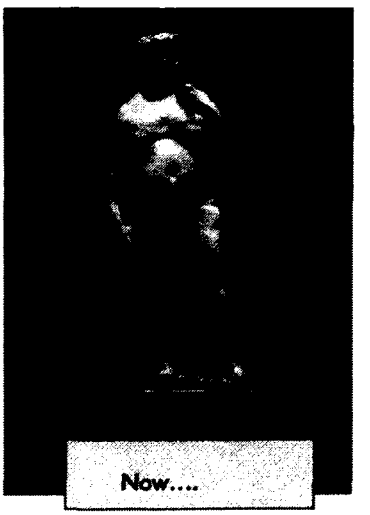
Set goals for yourself, such as a date when you'll progress to the next level of effort. Adjust your goals if you need to and reward yourself when you reach them

SMART way to set goals:

Specific **M**easurable **A**chievable **R**elevant **Ti**me Limited

Healthy Eating





Wellness is ... healthy eating

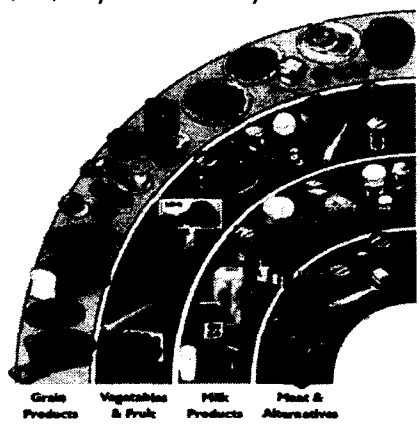
Good eating habits are important to help us feel our best. *Canada's Food Guide*, recommends that we:

- ❑eat a variety of foods from the four food groups every day (Grain Products, Vegetables and Fruit, Milk Products and Meat and Alternatives)
- ❑eat an amount of food to suit our age, sex, body size and activity level.

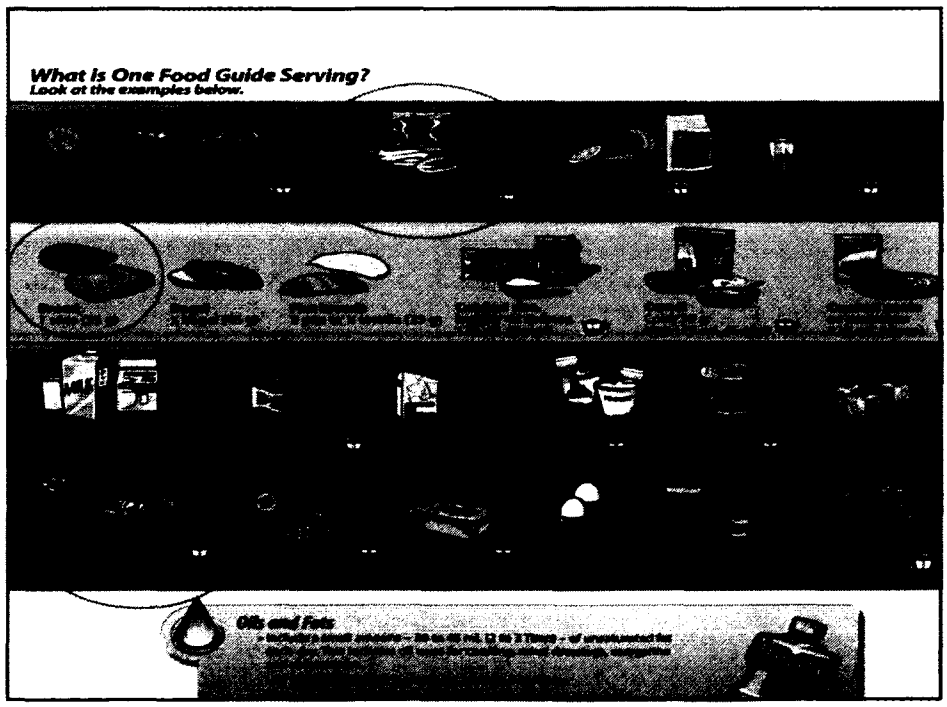
WHY??

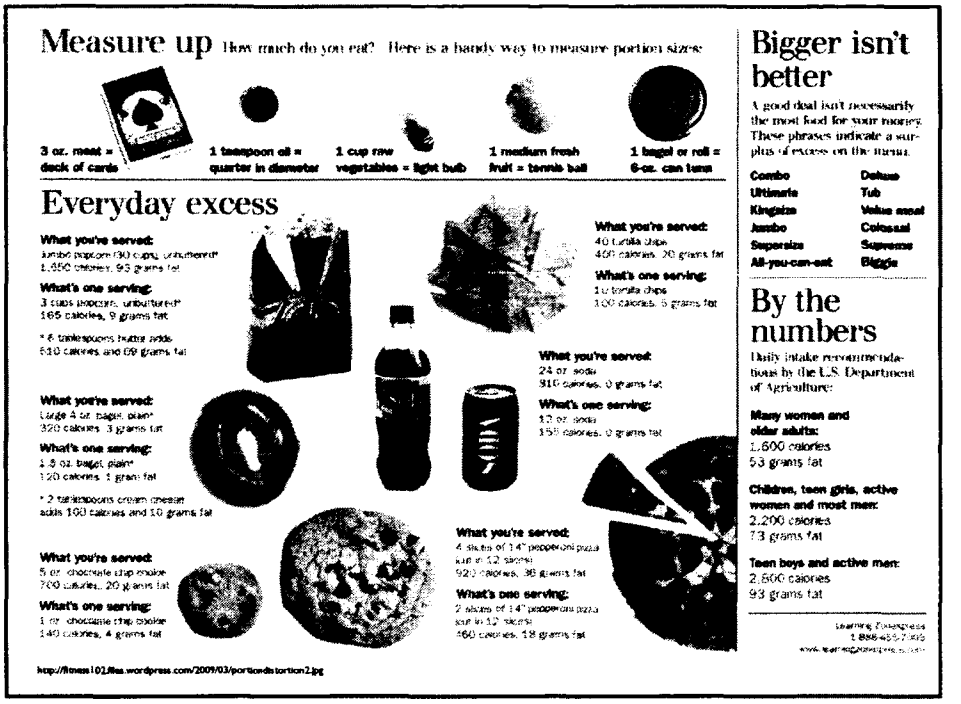
Healthy eating can:

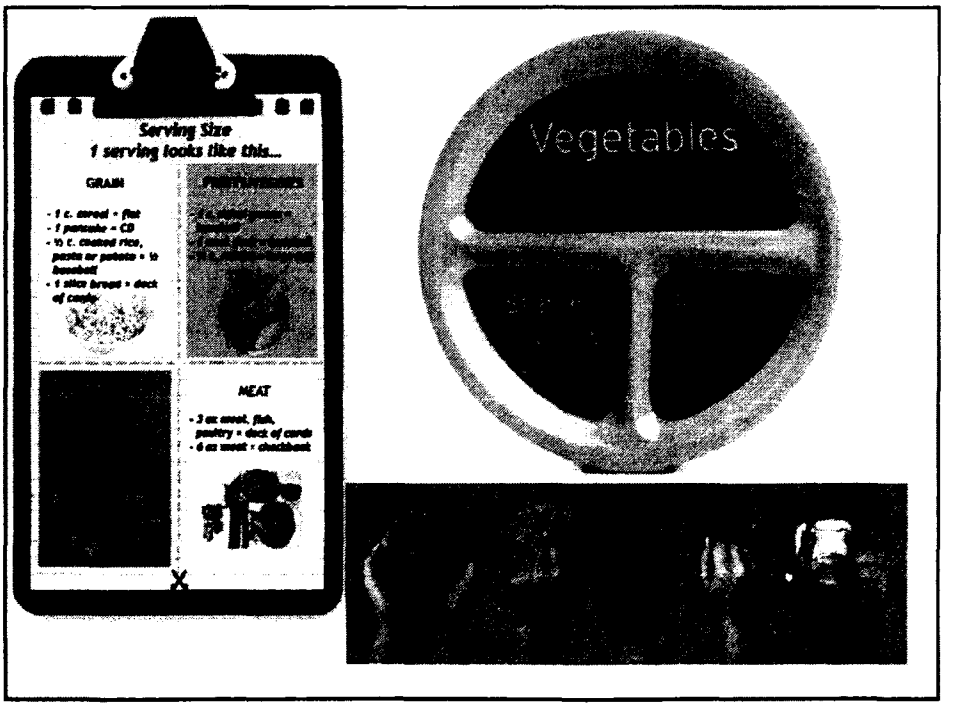
- •help boost our energy
- •help us control our weight
- •help us cope with stress
- •help our bodies fight disease
- •help us feel good about ourselves



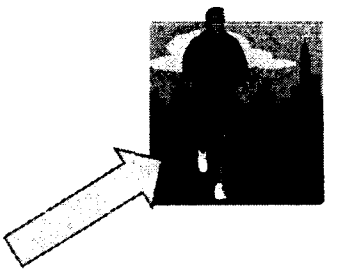
http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/basics-base/index-eng.php

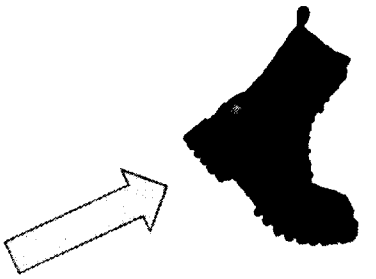


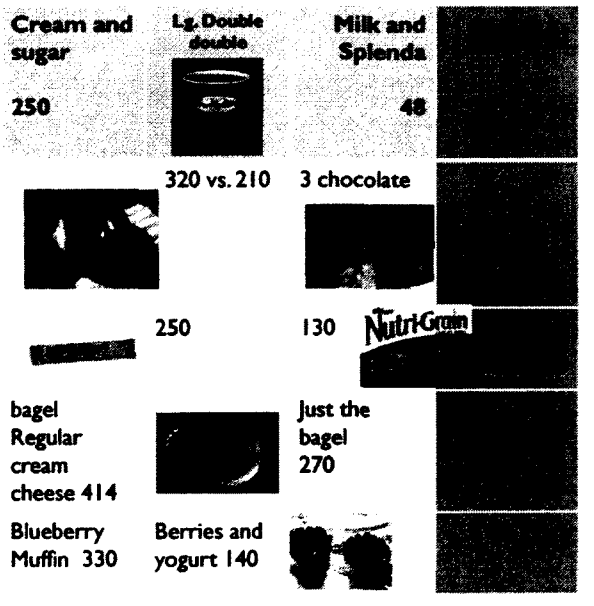

Measure up How much do you eat? Here is a handy way to measure portion sizes:
3 oz. roast = deck of cards
1 teaspoon oil = quarter in diameter
1 cup raw vegetables = light bulb
1 medium fresh fruit = tennis ball
1 bagel or roll = 6-oz. can tuna
Everyday excess
What you're served:
What's one serving:
What you're served:
What's one serving:
What you're served:
What's one serving:
What you're served:
What's one serving:
What you're served:
What's one serving:
Bigger isn't better
A good deal isn't necessarily the most food for your money. These phrases indicate a surplus of excess on the menu.
Combo
Ultimate
Kingsize
Jumbo
Supersize
All-you-can-eat
Deluxe
Tub
Value meal
Colossal
Supreme
Biggie
By the numbers
Daily intake recommendations by the U.S. Department of Agriculture:
Many women and older adults:
1,600 calories
53 grams fat
Children, teen girls, active women and most men:
2,200 calories
73 grams fat
Teen boys and active men:
2,800 calories
93 grams fat
http://fitness101.files.wordpress.com/2009/03/portiondistortion2.jpg


Serving Size
1 serving looks like this...
GRAIN
MEAT
Vegetables

Type of exercise	Calories burned *per hour*
Bicycling	300-1,300
Casual cross-country skiing	400-600
Climbing stairs	350-800
Downhill skiing	300-700
Golf	200-300
Ice or roller skating (noncompetitive)	450-600
Running (12-minute mile)	450-700
Running (5-minute mile)	1,100-1,700
Scrubbing the floor by hand	300-500
Shoveling snow by hand	350-550
Sleeping	60-75
Softball/baseball	300-400
Swimming laps	400-900
Tennis	350-700
Volleyball	175-700
Walking slowly	150-225
Walking briskly	250-350
Writing about exercise	90-110







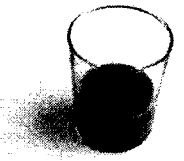
What 200 hundred calories looks like

http://www.wisegeek.com/what-does-200-calories-look-like.htm

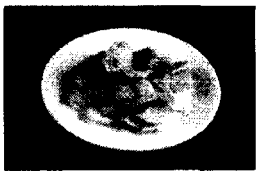
Hot Dogs
66 grams = 200 Calories

Glazed Doughnut
52 grams = 200 Calories

Jelly Belly Jelly Beans
54 grams = 200 Calories



Bailey's Irish Cream
60 ml = 200 Calories



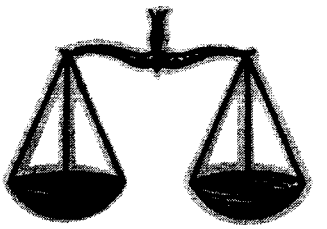
Potato Chips
37 grams = 200 Calories

Gummy Bears
51 grams = 200 Calories

Ideas for healthy eating:

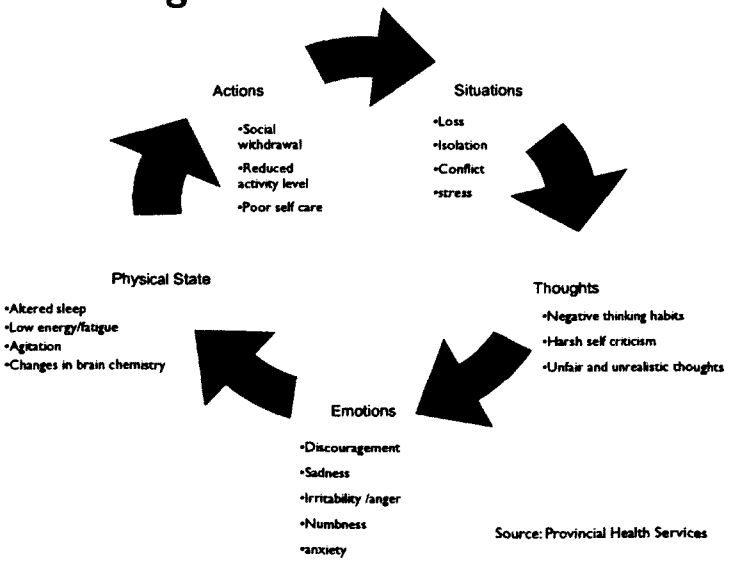
- Drink plenty of water - especially in warm weather or when you are active.
- Cut down on sugar, salt, alcohol and caffeine. (Caffeine is found in coffee, tea, colas and foods containing cocoa.)
- Learn to read food labels to check the sugar, salt and fat content of food.
- Keep nutritious food at the front of the refrigerator so you can reach for it easily.
- Keep cut up fruit and vegetables on hand for snacks.
- Be physically active. Walking or other physical activity will help you manage your weight and stay healthy.
- If you are trying to lose weight, write down what and when you eat. It'll help you see where to make changes.
- Avoid eating when you are feeling stressed. Find other ways to deal with stress.
- Enjoy meals in the company of family and friends on a regular basis.

Nurturing Mental Health



social, physical, spiritual, economic and mental

Nurturing Mental Health



Source: Provincial Health Services

Do you have a healthy balance in your life?

- ❑ Do you take care of your body and mind by healthy eating, being active and getting a good night's sleep?
- ❑ Do you regularly take time to relax and enjoy the company of family and friends?
- ❑ Do you spend time with at least one friend whom you trust and can talk to?
- ❑ Do you find time to be alone to think about yourself and your life?
- ❑ Are you achieving financial balance in your spending between real needs and wants?
- ❑ Do you keep mentally alert, learning new skills or information?

Take charge of your own mental well-being

- Build your self-esteem
- Take care of your physical health. Eat well, keep fit and rest to reduce stress and enjoy life.
- Create positive parenting and family relationships. Don't take your family for granted. Work on building good family relationships.
- Give and receive kindness and compliments.
- Find ways to cope with changes that affect you
- Find positive ways to express strong emotions like anger, sadness and fear.

- Make friends who will share the good and bad times, the joys and sorrows, with you.
- Think about your priorities. There are so many choices in today's world. What are the things that matter most to you?
- Get involved in your community.
- Get to know yourself. As you get to know and accept yourself, you will find self-confidence
- Have fun. Laughter and humour can boost your mental health or sense of well-being

Screening Tools

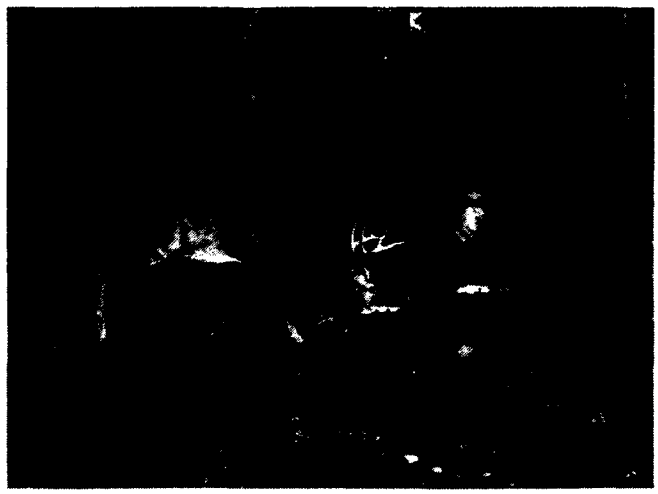
In the back of the tool kit, there are several self screening tools.

Websites:

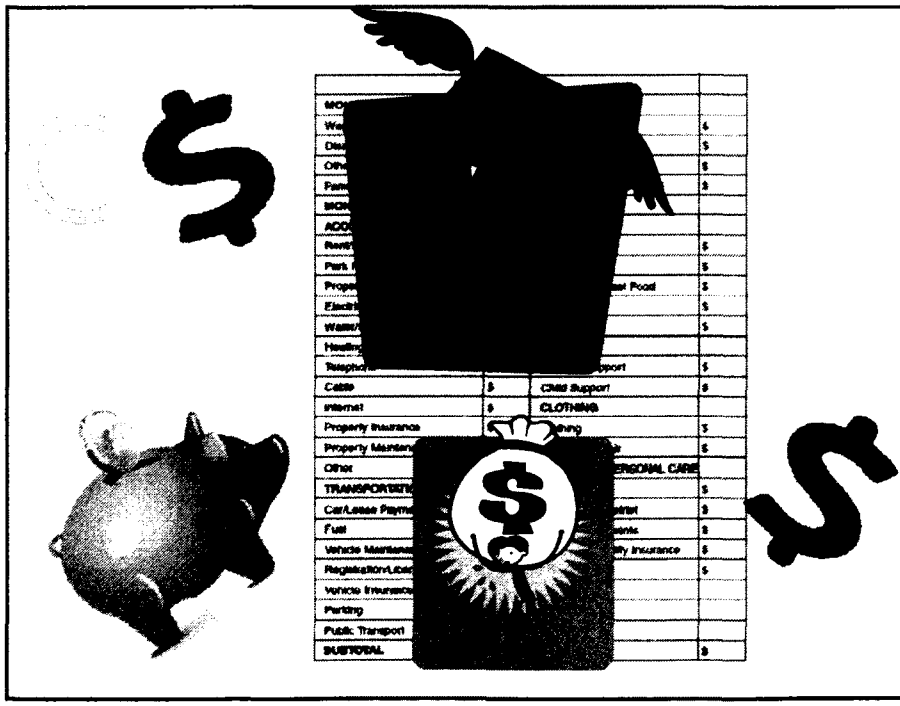
Check out

www.Checkupfromtheneckup.com quick and easy screening tool for several types of disorders…

How many times have you laughed today? _____



Creating a Family Budget



Five Money Issues Couples Must Never Fight Over by A. B. Jacobs

http://www.exploringwomanhood.com/homelife/familyfinances/money-issues.htm

1. If I should die before I wake
2. The minimum payment is a road to disaster
3. All hail the horseless carriage
4. Education doesn't make you smart- merely educated
5. It's never too soon to plan for the future

A family budget can:

- make the best use of money
- save money
- reduce stress
- maintain family harmony
- make you feel good about yourself

Where do you start?

Ask yourself - what are your family's spending habits?

- ❑ Do you have a budget or spending plan?
- ❑ Are you able to save some money each month?
- ❑ Do you feel frustrated and tense when you think about your household expenses?
- ❑ Does your money run out before the month ends?
- ❑ Do you talk to your partner about money issues?

How do you get better control of your finances:

- ❑ Get organized.
- ❑ Design a family budget.
- ❑ Write down everything for a week or month and analyze where it went
- ❑ Think about your family's lifestyle and spending habits
- ❑ Estimate your family's income and expenses for the next year. What about holidays, Christmas, birthdays, anniversaries....

Ways to save money

- Pay yourself first- the 10% rule
- Pay down on your debt and reduce or avoid interest charges- put the cards away for one month!
- **Pay cash**, not debit, not credit, **cold hard cash**
- Learn to repair things in your home or trade skills with a neighbour

Get a travel mug and brew your own!

- change your own oil
- scale back your cell phone or cable plan
- sell something- what "toy" or large item do you not really use anymore... have a garage sale, donate to the Salvation Army

Resist impulse buying - think about buying the item for a couple of days

According to Statistics Canada,

households spend an average of about $7,000 on food, including eating out in restaurants.

If 30% of food expenses were spent in restaurants, it works out to $40 per week, which would suggest eating out at an average of once a week. Of course, the average experience doesn't mean that frequent eating out isn't a problem for some families.
http://www.canadiancapitalist.com/the-high-cost-of-eating-out/

- **Cut down on eating out. Prepare special meals at home, have friends in instead of going out**
- **Make a food shopping list and stick to it when you go to the store, Costco**

Managing Stress

Review:

What is stress?

What is your stress number?

See Holmes and Raye Scale

Definition

a specific response by the body to a stimulus, as fear or pain, that disturbs or interferes with the normal physiological equilibrium of an organism- Webster's Dictionary

physiology students know it as:

The **hypothalamic-pituitary-adrenal axis (HPA or HTPA axis)**, also known as the limbic-hypothalamic-pituitary-adrenal axis (LHPA axis), is a complex set of direct influences and feedback interactions among the hypothalamus (a hollow, funnel-shaped part of the brain), the pituitary gland (a pea-shaped structure located below the hypothalamus), and the adrenal (or suprarenal) glands (small, conical organs on top of the kidneys). The interactions among these organs constitute the **HPA axis**, a major part of the neuroendocrine system that controls reactions to stress and regulates many body processes, including digestion, the immune system, mood and emotions, sexuality, and energy storage and expenditure. A wide variety of species, from the most ancient organisms to humans, share components of the HPA axis. It is the common mechanism for interactions among glands, hormones, and parts of the midbrain that mediate the general adaptation syndrome (GAS).

Psychology students know it as:

Hans Selye, who coined the term "the non-specific response of the body to any demand for change".

Four kinds of stress:

Eustress

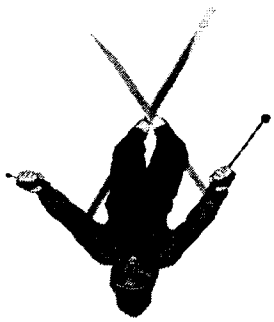
Hyperstress

Hypostress

Distress

Good stress?

Eustress is a positive stress that arises when motivation and inspiration are needed


Hyperstress:

occurs when an individual is pushed <u>beyond</u> what he or she can handle. Hyperstress results from being overloaded or overworked. When someone is hyperstressed, even little things can trigger a strong emotional response.

A dispatcher or air traffic controller is likely to experience hyperstress.

Bad stress?

too much stress for too long wears down our physical and emotional health. When our stress level starts to get out of hand, our bodies undergo a series of changes known as the *stress response.*

Common signs include:

- muscle tension
- mood swings and changes in memory or concentration
- tiredness and changes in sleep patterns.

No stress?

Hypostress occurs when an individual is bored or unchallenged. People who experience hypostress are often restless and uninspired. A factory worker who performs repetitive tasks might experience hypostress.

Distress

is a negative stress brought about by constant readjustments or alterations in a routine. Distress creates feelings of discomfort and unfamiliarity. There are two types of distress:

Acute stress is an intense stress that arrives and disappears quickly.

Chronic stress is a prolonged stress that exists for weeks, months, or even years.

Change is often a major source of stress

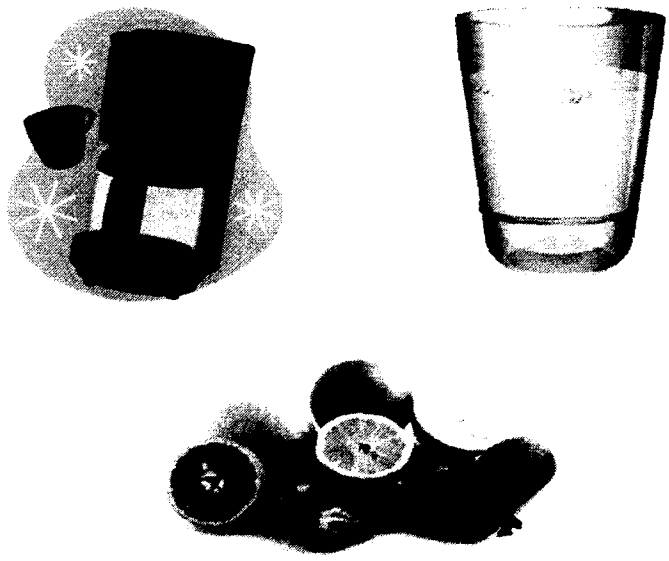
These breathing and muscle relaxation exercises:

- Pull your shoulders up to your ears, hold for few seconds and then release with a sigh.
- Sit down and take a deep breath. Flop over like a rag doll and let all your tension go.
- Close your eyes and picture a pleasant scene or memory.

Tips to help you manage your stress:

- Regular exercise is a great way of relieving stress.
- Eating a well-balanced diet will help you feel your best
- Get a good sleep so you feel rested and ready for the day ahead.
- Cut back on the amount of caffeine you drink in teas, coffees, colas, or chocolate
- Take time for quiet activities that bring you pleasure like reading, listening to music, or painting.
- Learn to manage your family's finances. Financial worries can be very stressful.
- Reduce what you expect of yourself and others.

Relax



Coping with Pain

Ask yourself - do you suffer with chronic pain?

- ❑ Does pain affect your daily tasks?
- ❑ Does pain affect your sleep at night?
- ❑ Does pain make you feel irritable or depressed?
- ❑ Does pain affect how you get along with others?

Learn to manage your pain:

- ❑ **Attitude** plays a major role in how you feel and respond to pain
- ❑ **Learn** about pain and its causes
- ❑ Learn how to **describe your pain.**
  - the location of your pain
  - the type of pain (for example: throbbing, sharp, achy)
  - the intensity of your pain (try using a scale of 1-5 with 5 being the worst)
  - the duration or length of time you feel pain.

- ❑ It is healthy for you to **talk about what and how you are feeling** rather than keeping your feelings inside.

❑ **Find out what is causing your pain.**

Surround yourself with supportive

Help yourself cope with pain:

- eat a healthy diet
- get enough exercise and sleep
- manage stress and think positively
- monitor your pain symptoms
- look for things to laugh about every day

❑ **Surround yourself with supportive professionals, family and friends.**

❑ **Develop a pain management plan,**

❑ **ideas to help you cope with your pain:**

- Practice relaxation, meditation or visualization techniques to distract you from your pain and the stress it creates.
- Learn how to lift objects safely and how to avoid falls.
- Try to think positively and, as much as possible, try not to focus on your pain.
- Maintain a healthy weight to reduce stress on your joints and muscles.

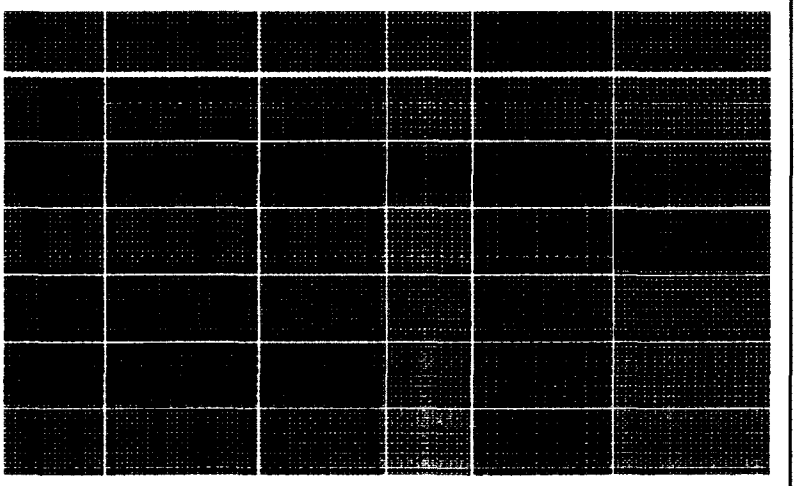
❑ **Pain Management Plan**

Your Pain Management Plan should be a record of:

- **Medications**
- **Physical Activity**
- **Rest**
- **Heat, cold, massage treatments**
- **Relaxation technique**

What else have you tried?

Pain Management Plan



Cope with your pain

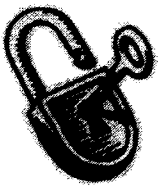
Prevent:

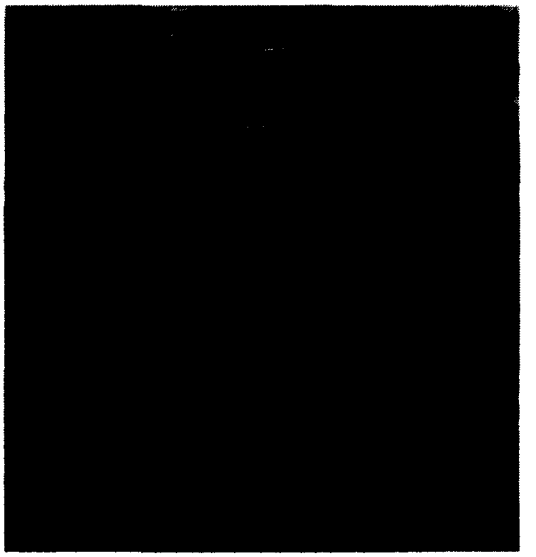
- Learn how to lift objects safely and how to avoid falls, weekend warrior things
- Maintain a healthy weight to reduce strain on the joints

Practice: relaxation, meditation or visualization for distraction before you have pain!

Ask for help when you need it

Knowledge is the key to managing pain





Managing Angry Feelings

Is anger creating a problem in your life?

- ❑ Do you often feel angry?
- ❑ Does feeling angry interfere with your enjoyment of life?
- ❑ Is anger making you act aggressively or violently towards yourself or others?
- ❑ Is anger hurting your relationships with family, friends and co-workers?
- ❑ Do you know what is causing your anger? Could it be from a traumatic event in your past?

Manage angry feelings

Try these and practice them so they become automatic in stressful situations:

- Breathe deeply in and out while slowly counting from one to four.
- Walk away from the situation until you feel calmer.
- Take a few minutes and concentrate on thinking about a pleasant image or memory.
- Tell the other person you are angry. Do this in a respectful way.
- Praise yourself when you have remained calm during a stressful situation.

Short-term solutions

Admit that you are angry. If you bottle up your angry feelings, they will not go away, and they will keep coming out over and over again, painfully.

Try not to over-react. Step back from the situation that is making you angry and ask yourself, "What would I think of someone else if I saw him/her getting angry in this situation?" or "Is this situation really as bad as I am making it out to be?"

Try to make yourself think about something else. Turn your attention to some pleasant memory rather than the line-up, traffic jam or whatever is irritating you.

Identify the source of your anger. If the actions or words of another person are hurting you, try to you deal with him/her directly in a peaceful and productive way.

Listen carefully to what others are saying to you, and let them finish without interruption. *Very often, you will not understand the real message if you "jump in" after a few words.* Give people a chance to explain themselves.

What 's your type?

Long-term solutions

Avoid blaming yourself, even if you are angry because of misfortune caused by your own mistake. It is best to try to learn from your experiences and avoid making the same mistakes again.

Reduce tension by finding time for some physical activity. Go for a brisk walk, play a hard game of tennis with a friend, work in the garden, or clean the house.

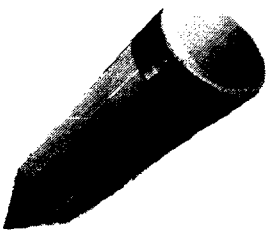
Reduce your stress level. Learn some stress management methods, such as relaxation and deep-breathing exercises. Try to find ways of doing more of the things you enjoy.

Learn to meditate. When you are alone, practice withdrawing your thoughts from your day-to-day concerns. This may make you more able to do the same when you find yourself getting angry.

Learn to laugh at yourself. If you can learn to see the silly side of things, you can laugh instead of lashing out.
Learn to trust the abilities of others. Some of your anger may be coming from a lack of faith in the capabilities of other people.

Look for professional help. If your problems are serious, you may need the help of a mental health professional, such as a psychiatrist, psychologist or social worker. Your family doctor can help you find these professional people. Or Talk to someone you trust (a family member, a close friend or a member of the clergy for your religion) who may be able to see things more clearly than you do.

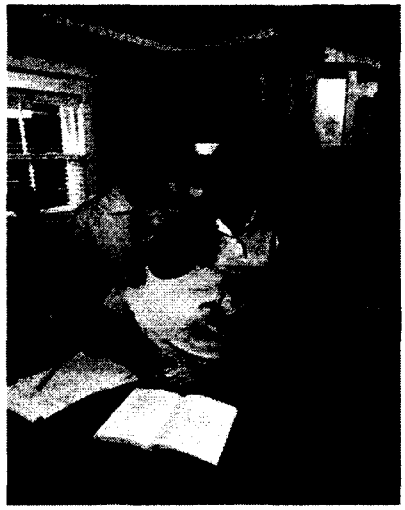
There are erasers on the ends of pencils for a reason.
Everybody makes mistakes!



visit the Canadian Health Network Web site at:
www.canadian-health-network.ca and search for 'Anger'.
There are articles available on anger, its triggers and associated emotions.

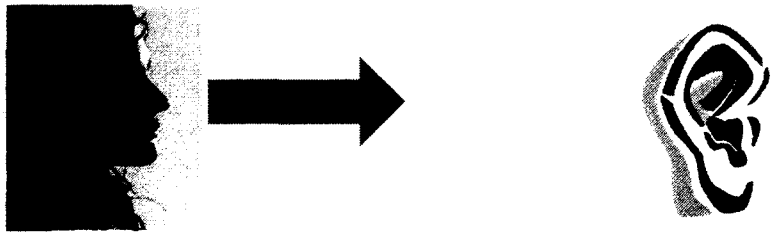
Resolving Family Conflict

When perfect is not so perfect....



To communicate effectively

- let each person speak
- listen carefully
- state viewpoints clearly and honestly
- treat each other with respect
- acknowledge each other's feelings.



How well does the family resolve conflicts?

- ❑ Is the same conflict and tension present every day?
- ❑ How serious is the conflict? Are there arguments? Are there physical fights? Do family members speak in loud voices and slam doors? Do they get upset and cry?
- ❑ Is there a time of day when conflicts tend to happen in your family? Is it in the morning, after school, at dinner, or before you go to bed?

Steps to resolve family conflict

- ❑ **Involve all family members**
- ❑ **Get information**
- ❑ **Improve your ability to react positively- set guidelines, use a 'talking stick'**
- ❑ **Develop an action plan**
- ❑ **Get professional help**

Plan together

A plan to resolve conflict:

On a sheet of paper, you can write:

- the exact issue/problem that is causing conflict
- the facts related to this specific issue
- the possible causes for the conflict
- possible solutions
- together, choose the best solution
- decide how to carry out the solution
- check back later to see if things are working out.

Resolving conflict requires mutual respect and a willingness to agree to a solution.

- Decide if the issue is worth getting upset about
- The goal is to resolve the problem, not to win the argument
- Always treat everyone involved with respect
- There are always alternatives, but sometimes you must search for them
- Both parties must agree to a solution that each can live with
- Seek professional help

Taking Action on Addiction

Addiction is

- a complicated issue that affects everyone differently
- termed as *chemical dependency is used to describe all forms of addiction or dependence on alcohol or drugs*
- considered a primary disease and is progressive, chronic and fatal
- affecting the whole person - physically, mentally, emotionally and spiritually.
- coping gone out of control

Ask yourself - do you have any of the warning signs of an alcohol or drug addiction?

- ❑ Are you having problems with any part of your life? Physical health? Work? Family?

Mental health? Your social or spiritual life?

- ❑ Do you know when to stop drinking? Do you often drink too much and become

intoxicated? Do you binge drink?

- ❑ Do you have withdrawal symptoms such as shakiness, irritability or seizures when you stop

drinking alcohol or using drugs?

- ❑ Are you using illegal drugs or having your drugs prescribed by more than one doctor?
- ❑ Has your drug use increased since you first started using them?
- ❑ Are you spending more and more time thinking about where the money for your next drinks or drugs will come from?

Answering yes to one or more questions, you may have signs of addiction

Not Smoking

It is the #1 cause of preventable illness and death in Canada

Just one cigarette:

- speeds up your heartbeat
- causes blood vessels to narrow so your blood pressure increases
- upsets the flow of blood and air in your lungs
- causes the temperature in your fingers and toes to drop.

The longer you smoke . . . the deadlier it gets

Not a chemical dependency?

Gambling- real life or on line

Internet addictions such as role playing games and porn

http://helpguide.org/mental/internet_cybersex_addiction.htm

You are at greater risk of Internet addiction:

If you suffer from anxiety. You may use the Internet to distract yourself from your worries and fears. An anxiety disorder like *obsessive-compulsive disorder may also contribute to excessive* email checking and compulsive Internet use.

If you are depressed. The Internet can be an escape from feelings of depression, but too much time online can make things worse. Internet addiction further contributes to isolation and loneliness.

If you have any other addictions. Many Internet addicts suffer from other addictions, mainly to drugs, alcohol, gambling, and sex.

If you lack social support. Internet addicts often use chat rooms, instant messaging, or online gaming as a safe way of establishing new relationships and more confidently relating to others.

If you are less mobile or socially active than you are used to. For example, you may be coping with a new disability that limits your ability to drive. Parenting very young children can make it hard to leave the house or connect with old friends.

Modify your Internet use step by step

To help you see problem areas, keep a log of how much you use the Internet for non-work related activities. You might find this challenging if you interweave recreational Internet use with work, but try to get a clear idea of when you use. Are there times of day that you use more? Are there triggers in your day that make you stay online for hours at a time when you planned for 5 minutes?

Set goals for when you can use the Internet. For example, you might try setting a timer for usage, scheduling use for certain times of day, or making a commitment to turn off the computer at the same time each night.

Replace your Internet usage with healthy activities. If you are bored and lonely, *resisting the urge to get back online will be very difficult.* Have a plan for other ways to fill the time, such as going to lunch with a coworker, taking a class, or inviting a friend over.

http://helpguide.org/mental/internet_cybersex_addiction.htm

Good reasons to stop smoking:

- reduce your risk of heart attack and stroke
- help you feel more relaxed and energetic
- improve the health of everyone in your home
- save money

Use of smokeless tobacco?

Using chewing tobacco saves your lungs but puts your oral mucosa at risk,

would you put this in your eye?? mouth not designed to hold a substance that long

Mouth is very vascular, similar to your eyes

It is known to cause tooth decay, gum disease

Can be more potent than smoking as they tend to swallow some on the juice as well, giving higher nicotine intake

Visit your dentist very regularly, check for white patches in the mouth, are pre cancerous cells

Did you know?

- **20 minutes after the last cigarette:** blood pressure and pulse rate return to normal
- **2 days after stopping**: your senses of smell and taste begin to return
- After **1 year: your risk of heart disease is reduced by half**
- Within **3 years:** your risk of heart disease is the same as someone who never smoked
- Within **10 years: your risk of lung cancer is reduced by half.**

How to kick the habit

- **Get ready**
- **Be realistic**
- **Prepare yourself**
- **Choose how you are going to stop**
- **Prepare yourself for nicotine cravings**
- **Endure the withdrawal symptoms**
- **Substitute a new habit**

Ideas to help you stay 'smoke free' or habit free

- Keep active every day so you won't think about smoking.
- Limit your caffeine and alcohol intake. Both are associated with the smoking habit.
- Help reduce your stress by practicing relaxation techniques.
- Exercise - it can help reduce your cravings
- Practice the four "**D's**" **whenever tempted: Delay, Deep breath, Drink water, Do something**
- Reward yourself with a gift bought with the money you have saved by not smoking

Smoking Cessation

Nicotine Intervention Counselling Center staff provide smokers across northern BC with cessation support.

Northern Health has established the toll free line 1-877-617-6777, and the email address tobacco.control@northernhealth.ca for Northern BC residents to contact NH's Tobacco Reduction Team, and to obtain helpful information on tobacco control, reduction and cessation resources.

Nicotine Intervention Counselling Centre (NICC)

Most smokers try to stop on their own - but only five out of 100 who try to stop "cold turkey" are successful. Best success is achieved with support from trained professionals.

The Nicotine Intervention Counselling Centre (NICC) program has trained professionals who can help you reach your goal of a smoke free life.

As a client of NICC you will receive:

Individual Consultation: An assessment of your situation, help to understand and change behaviours that support tobacco dependence and development of a personal quitting plan.

Nicotine replacement Therapy: Access to a starter kit of nicotine replacement medications to help ease the way to a tobacco free life.

Relapse Prevention: Regular follow-up support for a year to offer encouragement and advice. Support groups are available in some locations.

For more information about NICC contact your local health unit or dial 1-800-663-7867 and ask to be transferred to:

Northwest: (250) 622-6371

Northeast: (250) 649-7138

Northern Interior: (250) 565-7344

Getting a good night's sleep

Who are you?

Healthy, Lively Larks

You are the model citizen of sleep. As a Healthy, Lively Lark, you are someone who is not likely to be affected by sleep problems. You almost always get the sleep you need and **you almost never feel tired or fatigued.** You are younger than the other groups, often married or partnered and working full time. You consider yourself a **morning person** who is not diagnosed with a medical condition.

Dragging Duos

More than the other groups, the Dragging Duos are most likely to be partnered and employed, working more than 40 hours a week, and **often doing job-related work within an hour of going to bed.** As an **early riser,** you are nearly twice as likely as the other groups to get less sleep than you need to function at your best. More than one-third of Dragging Duos say they **feel tired/fatigued at least three days each week.** Duos often report that their partner has at least one symptom of insomnia. Sleep disorders have caused some problems in your relationship, including your intimate relationship, which has been affected because of sleepiness.

http://www.sleepfoundation.org

Overworked, Overweight and Over caffeinated

As an **evening person or "owl"** who is employed, you have the longest work week of all the groups, and you are **least likely to work regular day shifts.** You sleep less than other groups but **nap more,** with two-thirds taking two or more naps each week. You feel like you need fewer hours of sleep each night to function at your best compared to the other groups and you believe you get as much or more sleep than you need. Members of this group **drink more caffeine** than other groups. Seven in 10 frequently experience a symptom of insomnia. Your group has a higher representation of males, about **one-half of the group** isn't partnered and the same amount would be classified **as "obese."**

Sleepless and Missin' the Kissin'

Your group has the **largest proportion of "owls"** and people who think they have a sleep problem or a symptom of insomnia. You are the least likely to say you frequently get a good night's sleep. Nearly **one-half** of your group feels they are **getting less sleep than they need,** and the same number says they usually feel tired/fatigued. You are more likely than other groups to say you (or your partner's) **sleep disorders** have **caused significant or moderate problems with your relationship,** and 2 out of 5 say intimate relationships have been affected because of sleepiness. The majority of SAMTK's has been diagnosed with a medical condition and you are **more likely to use sleep aids.** One-half of this group is employed, and there is a high representation of females.

Do you have any of the warning signs of sleep deprivation?

Do you often feel irritable and fatigued?

Do you often find it difficult to concentrate?

Do you feel drowsy during the day, especially in the mid-morning or mid-afternoon?

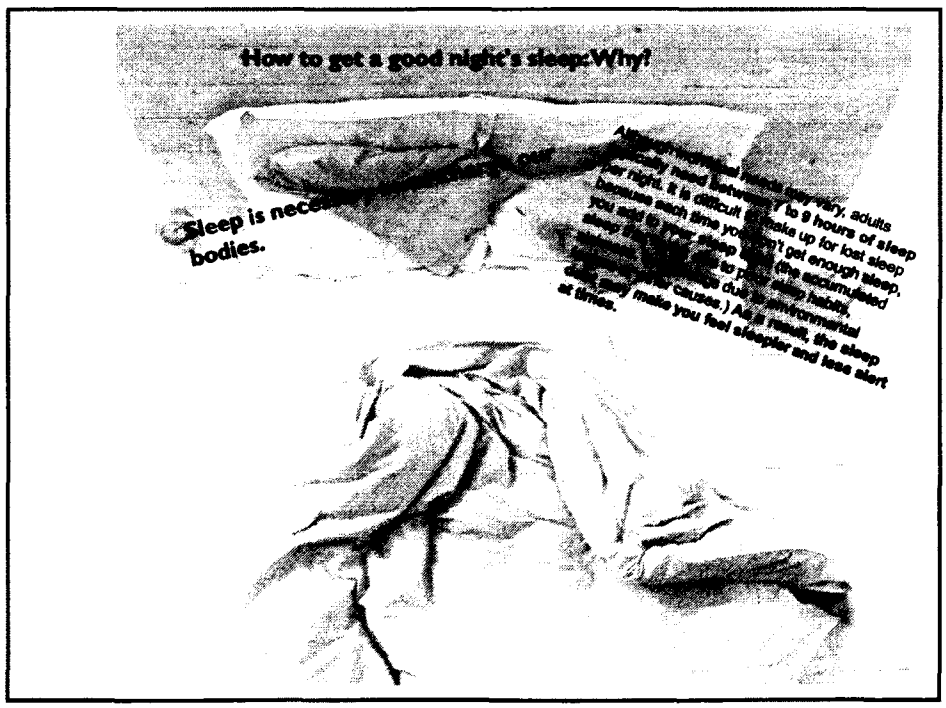
Do you fall asleep in five minutes or less?

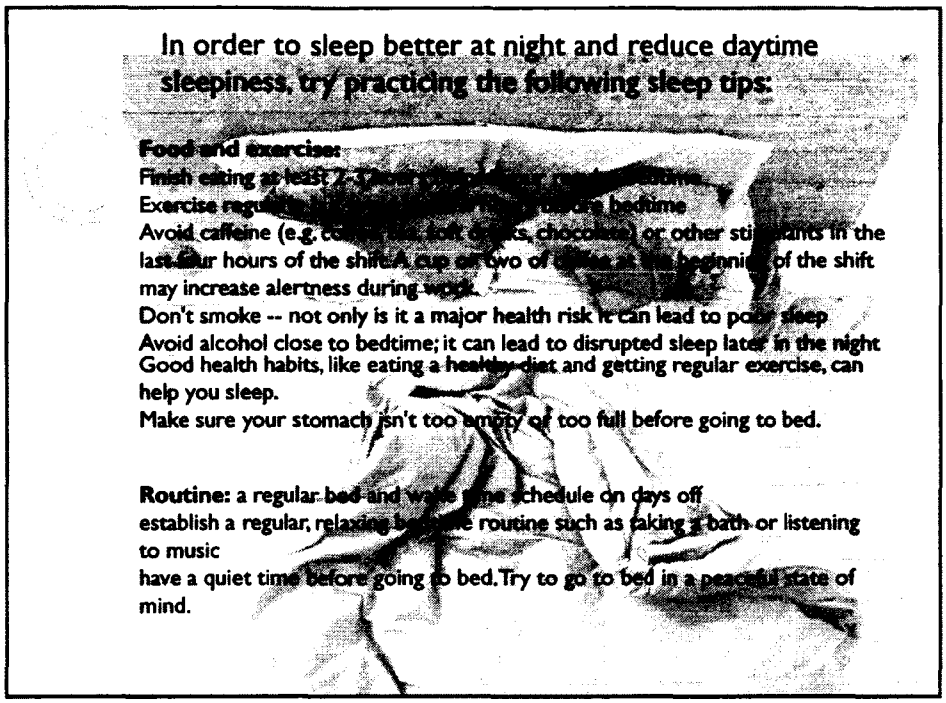
How to get a good night's sleep:

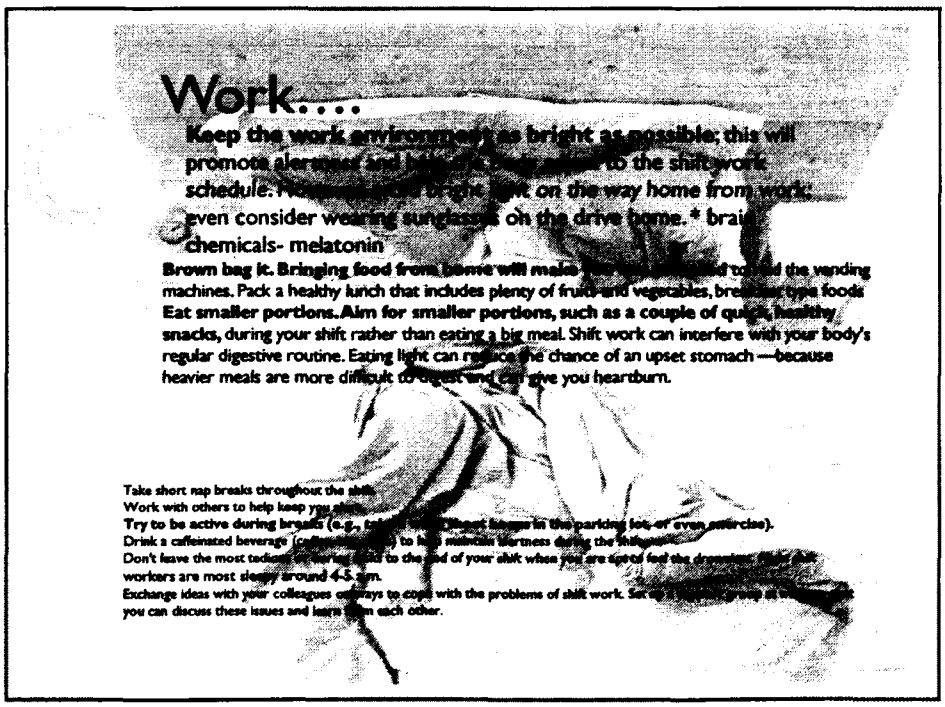
Get information. Check your library and bookstores for up-to-date books and magazines with articles about sleep. They may help you understand why you have sleeping problems and suggest solutions.

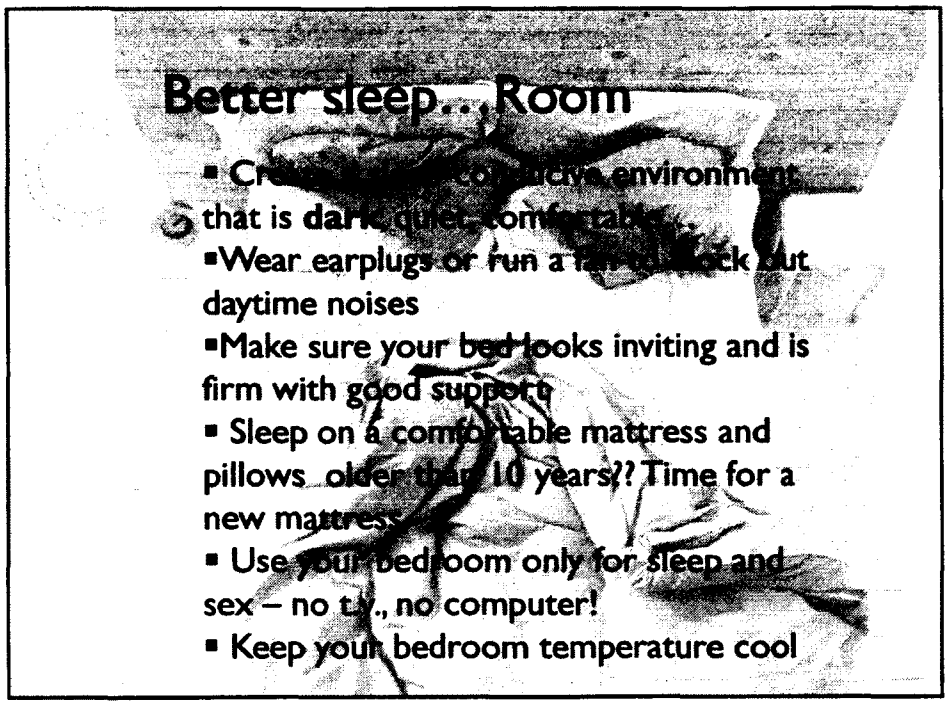
Determine the cause of your sleep problem. Could it be something in your environment, like noise, light or temperature? Can you think of ways to change things that are disturbing your sleep?

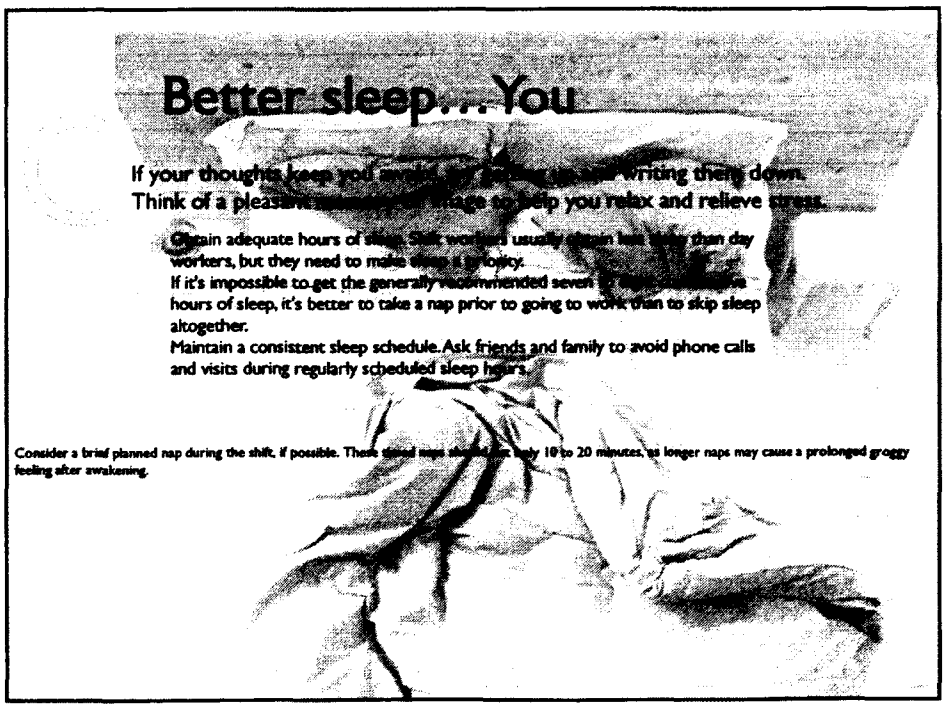
Sometimes sleeplessness can be a symptom of deeper problems. Emotions such as fear, anger, guilt and depression can keep you awake thinking and worrying. Strong emotions like these are hard to shut off at bedtime. They can affect your ability to get to sleep and to stay asleep. If your emotions often keep you awake at night, you should talk to your doctor or a counsellor. Your doctor may prescribe a sleeping pill to help you in the short-term. For long-term help, talking to a counsellor may help you overcome your problems.

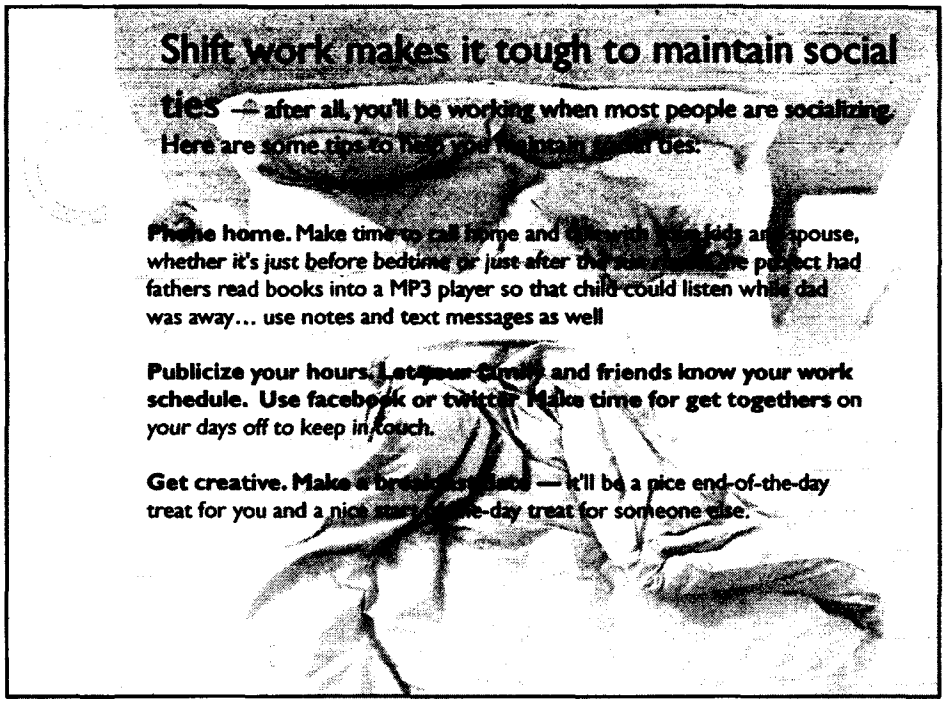


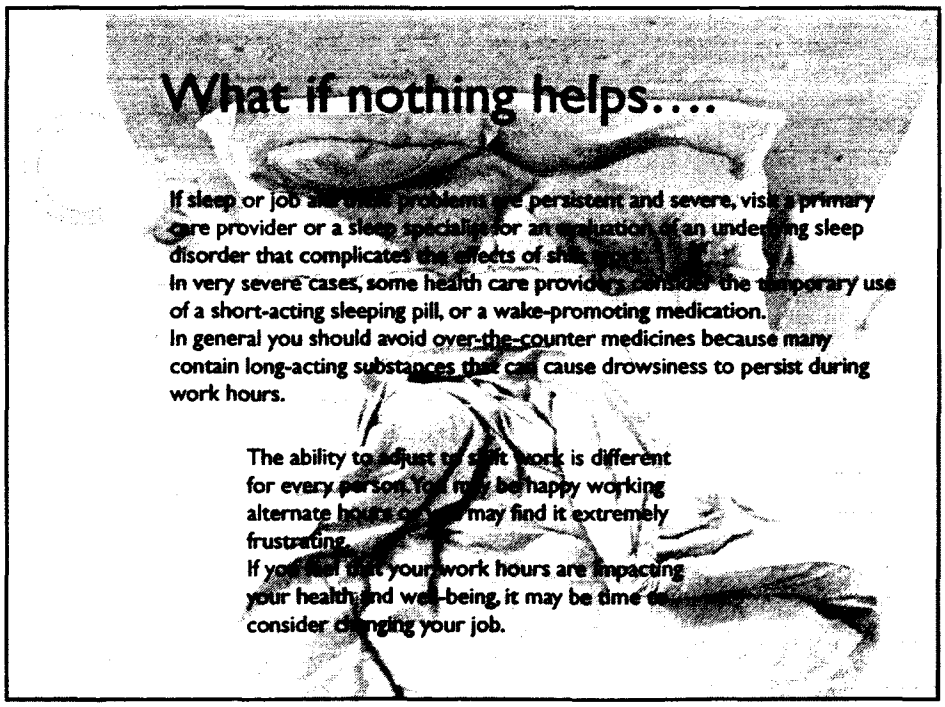

In order to sleep better at night and reduce daytime sleepiness, try practicing the following sleep tips:
Food and exercise:
Finish eating at least 2-3 hours before bedtime
Exercise regularly but not right before bedtime
Avoid caffeine (e.g. coffee, tea, soft drinks, chocolate) or other stimulants in the last four hours of the shift. A cup or two of coffee at the beginning of the shift may increase alertness during work.
Don't smoke -- not only is it a major health risk it can lead to poor sleep
Avoid alcohol close to bedtime; it can lead to disrupted sleep later in the night
Good health habits, like eating a healthy diet and getting regular exercise, can help you sleep.
Make sure your stomach isn't too empty or too full before going to bed.
Routine: a regular bed and wake time schedule on days off
establish a regular, relaxing bedtime routine such as taking a bath or listening to music
have a quiet time before going to bed. Try to go to bed in a peaceful state of mind.


Work....
Keep the work environment as bright as possible; this will promote alertness and help you adjust to the shiftwork schedule.
bright light on the way home from work;
even consider wearing sunglasses on the drive home. * brain chemicals- melatonin
Brown bag it. Bringing food from home will make
to the vending machines. Pack a healthy lunch that includes plenty of fruits and vegetables, breakfast type foods
Eat smaller portions. Aim for smaller portions, such as a couple of quick, healthy snacks, during your shift rather than eating a big meal. Shift work can interfere with your body's regular digestive routine. Eating light can reduce the chance of an upset stomach —because heavier meals are more difficult to digest and can give you heartburn.
Take short nap breaks throughout the shift
Work with others to help keep you alert
Try to be active during breaks (e.g., take a short walk around the parking lot, or even exercise).
Drink a caffeinated beverage (coffee, tea, soft drinks) to help maintain alertness during the shift.
Don't leave the most tedious or boring tasks to the end of your shift when you are tired and feel the drowsiness. Most shift workers are most sleepy around 4-5 a.m.
Exchange ideas with your colleagues on ways to cope with the problems of shift work. Set up
you can discuss these issues and learn from each other.


Better sleep...Room
▪ Cr conducive environment
that is dark, quiet, comfortable
▪Wear earplugs or run a fan to block out
daytime noises
▪Make sure your bed looks inviting and is
firm with good support
▪ Sleep on a comfortable mattress and
pillows older than 10 years?? Time for a
new mattress
▪ Use your bedroom only for sleep and
sex – no t.v., no computer!
▪ Keep your bedroom temperature cool


Better sleep...You
If your thoughts keep you
Think of a pleasant
Obtain adequate hours of
workers, but they need to make
If it's impossible to get the generally
hours of sleep, it's better to take a nap prior to going to work than to skip sleep
altogether.
Maintain a consistent sleep schedule. Ask friends and family to avoid phone calls
and visits during regularly scheduled sleep hours.
Consider a brief planned nap during the shift, if possible.
feeling after awakening.


Shift work makes it tough to maintain social ties — after all, you'll be working when most people are socializing. Here are some tips to help you maintain social ties:
Phone home. Make time to call home and
whether it's just before bedtime or just after the
fathers read books into a MP3 player so that child could listen while dad was away... use notes and text messages as well
Publicize your hours. Let your family and friends know your work schedule. Use facebook or twitter. Make time for get togethers on your days off to keep in touch.
Get creative. Make a
treat for you and a nice
treat for someone else.


What if nothing helps....
If sleep or job
care provider or a
disorder that complicates the effects of
In very severe cases, some health care providers
of a short-acting sleeping pill, or a wake-promoting medication.
In general you should avoid over-the-counter medicines because many contain long-acting substances that can cause drowsiness to persist during work hours.
The ability to
for every person.
alternate
frustrating.
If you feel that your work hours are impacting your health and well-being, it may be time to
consider

Summary

Health and wellness depends on a balance
Exercise and diet impact total health
Stress can be helpful or harmful,
Take time and invest in your health!

social, physical, spiritual, economic and mental

Evaluation time

Please fill in the evaluation sheet in your package and place in the envelope on the table.

Thanks!
Anne

Keepers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

*Favorite:

_____

HOLMES AND RAHE STRESS SCALE

Holmes and Rahe found that a score of 150 gives you a 50-50 chance of developing an illness. A score of 300+ gives you a 90% chance of developing an illness, having an accident or "blowing up". Notice that "positive times" like Christmas, marriage and vacations are stressful.

multiply event by the number of times you have experienced it in the last year

	LIFE EVENT (STRESSOR)	VALUE	#/YR	TOTAL
1	DEATH OF SPOUSE	100 X	____ =	____
2	DIVORCE	73 X	____ =	____
3	MARITAL SEPARATION	65 X	____ =	____
4	JAIL TERM	63 X	____ =	____
5	DEATH OF CLOSE FAMILY MEMBER	63 X	____ =	____
6	MAJOR PERSONAL INJURY OR ILLNESS	53 X	____ =	____
7	MARRIAGE	50 X	____ =	____
8	FIRED FROM WORK	47 X	____ =	____
9	MARITAL RECONCILIATION	45 X	____ =	____
10	RETIREMENT	45 X	____ =	____
11	MAJOR CHANGE IN HEALTH OF FAMILY MEMBER	44 X	____ =	____
12	PREGNANCY	40 X	____ =	____
13	SEX DIFFICULTIES	39 X	____ =	____
14	GAIN OF NEW FAMILY MEMBER	39 X	____ =	____
15	MAJOR BUSINESS READJUSTMENT	39 X	____ =	____
16	MAJOR CHANGE IN FINANCIAL STATE	38 X	____ =	____
17	DEATH OF CLOSE FRIEND	37 X	____ =	____
18	CHANGE TO DIFFERENT LINE OF WORK	36 X	____ =	____
19	MAJOR CHANGE IN NUMBER OF ARGUMENTS WITH SPOUSE	35 X	____ =	____
20	MORTGAGE OVER $100,000	31 X	____ =	____
21	FORCLOSURE OF MORTAGE OR LOAN	30 X	____ =	____
22	MAJOR CHANGE IN RESPONSIBILITIES AT WORK	29 X	____ =	____
23	SON OR DAUGHTER LEAVING HOME	29 X	____ =	____
24	TROUBLE WITH IN-LAWS	29 X	____ =	____
25	OUTSTANDING PERSONAL ACHIEVEMENT	28 X	____ =	____
26	SPOUSE BEGINS OR STOPS WORK	26 X	____ =	____
27	BEGIN OR END SCHOOL	26 X	____ =	____
28	MAJOR CHANGE IN LIVING CONDITIONS	25 X	____ =	____
29	REVISION OF PERSONAL HABITS	24 X	____ =	____
30	TROUBLE WITH BOSS	23 X	____ =	____
31	MAJOR CHANGE IN WORK HOURS OR CONDITIONS	20 X	____ =	____
32	CHANGE IN RESIDENCE OR SCHOOLS	20 X	____ =	____
33	MAJOR CHANGE IN RECREATION	19 X	____ =	____
34	MAJOR CHANGE IN CHURCH ACTIVITIES	19 X	____ =	____
35	MAJOR CHANGE IN SOCIAL ACTIVITIES	18 X	____ =	____
36	MORTGAGE OR LOAN LESS THAN $10,000	17 X	____ =	____
37	MAJOR CHANGE IN SLEEPING HABITS	16 X	____ =	____
38	MAJOR CHANGE IN NUMBER OF FAMILY GET-TOGETHERS	15 X	____ =	____
39	MAJOR CHANGE IN EATING HABITS	15 X	____ =	____
40	VACATIONS , CHRISTMAS	13 X	____ =	____
41	MINOR VIOLATIONS OF THE LAW	11 X	____ =	____
		YOUR TOTAL		____

OPINIONS AND FEELINGS ARE FREQUENTLY A PERSONAL TRIUMPH OVER GOOD THINKING
YOU DEFINE REALITY BY WHAT YOU KNOW, WHAT YOU BELIEVE, AND WHAT YOU DO ABOUT IT.

The first--and often the toughest--step in beating alcoholism is admitting the existence of a problem.

To test whether alcohol is a problem for you, answer "YES" or "NO" to this series of questions.

1.Do you occasionally drink heavily after a disappointment, quarrel or rough day? YES NO

2.When under pressure, do you always drink more heavily than usual? YES NO

3.Can you handle more liquor now than when you first started drinking? YES NO

4.On the "morning after," have you been unable to remember part of the evening before--even though friends say you didn't pass out? YES NO

5.When drinking with others, do you try to have a few extra drinks when they won't know it? YES NO

6.Are there certain occasions when you feel uncomfortable if alcohol is not available? YES NO

7.When you start drinking, are you in more of a hurry to get the first drink than you used to be? YES NO

8.Do you sometimes feel a little guilty about your drinking? YES NO

9.Are you secretly irritated when friends or family discuss your drinking? YES NO

10.Have you experienced memory blackouts more frequently? YES NO

11.Do you often want to drink more after friends have had enough? YES NO

12.Do you usually have a reason for occasions when you drink heavily? YES NO

13.When sober, do you often regret things you've done or said while drinking? YES NO

14.Have you tried to control your drinking by switching Brands or following different plans? YES NO

15.Have you often failed to keep promises about controlling your drinking? YES NO

16.Have you tried to control your drinking by changing jobs or moving? YES NO

17.Do you try to avoid family or friends while drinking? YES NO

18.Are you having an increasing number of financial and work problems? YES NO

19.Do more people seem to be treating you unfairly without reason? YES NO

20.Do you eat very little or irregularly when drinking? YES NO

21.Do you sometimes have the morning "shakes" and relieve them with a drink? YES NO

22.Are you unable to drink as much as you once did? YES NO

23.Do you sometimes stay drunk for several days at a time? YES NO

24.Do you sometimes feel very depressed and wonder whether life is worth living? YES NO

25.After drinking, do you ever see or hear things that aren't there? YES NO

26.Do you get terribly frightened after drinking heavily? YES NO

Results

Did you answer "YES" to any of these questions?

If you answered "yes" to any of these questions, you have some symptoms that may indicate alcoholism.

"Yes" answers to three or more questions in various categories indicate the following stages of alcoholism:

Questions 1 to 8: Early stage,

Questions 9 to 21: Middle stage,

Questions 22 to 26: Beginning of Final stage.

Call a friend, your family doctor or Alcoholics Anonymous today!

The first--and often the toughest--step in beating alcoholism is admitting the existence of a problem.

http://www.mental-health-today.com/tests/alcotest.htm

Dare-to Laugh

Humor Toolkit *5 Things that make me laugh*

1_____

2_____

3_____

4_____

5_____

Tips & Tricks: • Tickle your funny bone with humorous books or comic strips • Rent hilarious videos and let the masters of comedy cheer you up • Keep your favorite joke books around to thumb through while waiting on hold • Listen to tapes or CDs by your favorite comedians to give laughter muscles a healthy workout • Spend time with children, pets, and upbeat people - let their laughter and playfulness rub off on you • Set out to find humor in every situation

Give yourself permission t o laugh at yourself • Don't take yourself or anyone else too seriously

Sources of Laughter

• Anything by Dave Barry • Letters from a Nut by Ted L. Nancy • Calvin & Hobbes • Anatomy of an Illness by Norman Cousins • Dilbert • A Life in the Balance by Scott Burton • Far Side by Scott Larsen, Tundra by Chad Carpenter

Internet • http://www.stupidvideos.com • Men who look like Kenny Rodgers - http://www.menwholooklikekennyrogers.com/ • Cartoons and comic strips from today's newspapers - http://humor.about.com/library/bltoday7.htm • Funny Pictures & Videos: http://www.ebaumsworld.com • Email Signatures - http://coolsig.com/ • April Fools Day humor - http://humor.about.com/od/aprilfoolsday/ • google the Darwin Awards, www.cbc.ca/diversions, check out Mitch Hedburg or Jeff Dunham on youtube

Videos & Television • Young Frankenstein, Blazing Saddles, or anything else by Mel Brooks • The Three Stooges • The Pink Panther and Sequels • Seinfeld (TV) • Whose Line Is It Anyway? (TV) The comedy channel,

Questionnaire for Sleep Apnea Risk

Epworth Sleepiness Scale

The Epworth Sleepiness Scale is used to determine the level of daytime sleepiness. **A score of 10 or more is considered sleepy**. A score of 18 or more is very sleepy. If you score 10 or more on this test, you should consider whether you are obtaining adequate sleep, need to improve your sleep hygiene and/or need to see a sleep specialist. These issues should be discussed with your personal physician.

Use the following scale to choose the most appropriate number for each situation:

0 = would *never* doze or sleep.
1 = *slight* chance of dozing or sleeping
2 = *moderate* chance of dozing or sleeping
3 = *high* chance of dozing or sleeping

Fill in your answers and see where you stand

Situation	**Chance of Dozing or Sleeping**
Sitting and reading	____
Watching TV	____
Sitting inactive in a public place	____
Being a passenger in a motor vehicle for an hour or more	____
Lying down in the afternoon	____
Sitting and talking to someone	____
Sitting quietly after lunch (no alcohol)	____
Stopped for a few minutes in traffic while driving	____
Total score (add the scores up) (This is your Epworth score)	____

Questionnaire for Sleep Apnea Risk

Assess your risk for sleep apnea. The total score for all 5 sections is your *Apnea Risk Score*. Write in your best answer for each question and see where you stand.

A. How frequently do you experience or have you been told about snoring loud enough to disturb the sleep of others?

   1. Never
   2. Rarely (less than once a week)
   3. Occasionally (1 - 3 times a week)
   4. Frequently (More than 3 times a week)

B. How often have you been told that you have "pauses" in breathing or stop breathing during sleep?

   1. Never
   2. Rarely (less than once a week)
   3. Occasionally (1 - 3 times a week)
   4. Frequently (More than 3 times a week)

C. How much are you overweight?

   1. Not at all
   2. Slightly (10 - 20 pounds)
   3. Moderately (20 - 40 pounds)
   4. Severely (More than 40 pounds)

D. What is your Epworth Sleepiness Score?

   1. Less than 8
   2. 9 -13
   3. 14 - 18
   4. 19 or greater

E. Does your medical history include:

   1. High blood pressure
   2. Stroke
   3. Heart disease
   4. More than 3 awakenings per night (on the average)
   5. Excessive fatigue
   6. Difficulty concentrating or staying awake during the day

If you answered 3) or 4) for questions A-D, especially if you have one or more of the conditions listed in question E, then you may be at risk for sleep apnea and should discuss this with your physician. **Note: You should always discuss sleep-related complaints with your physician before deciding on medical evaluation and treatment.** http://www.umm.edu/sleep/apnea_risk.htm

GENERALIZED ANXIETY DISORDER SELF-TEST [173]

Disclaimer:
This is a preliminary screening test for anxiety symptoms that does not replace in any way a formal psychiatric evaluation. It is designed to give a preliminary idea about the presence of mild to moderate anxiety symptoms that indicate the need for an evaluation by a psychiatrist.

How much anxiety is too much? If you suspect that you might suffer from generalized anxiety disorder, complete the following self-test by clicking the "yes" or "no" boxes next to each question, print out the test and show the results to your health care professional.

HOW CAN I TELL IF IT'S GAD?

Yes or No? Are you troubled by:

Yes ☐ **No** ☐	Excessive worry, occurring more days than not, for a least six months?
Yes ☐ **No** ☐	Unreasonable worry about a number of events or activities, such as work or school and/or health?
Yes ☐ **No** ☐	The inability to control the worry?

Are you bothered by a least three of the following?

Yes ☐ **No** ☐	Restlessness, feeling keyed-up or on edge?
Yes ☐ **No** ☐	Being easily tired?
Yes ☐ **No** ☐	Problems concentrating?
Yes ☐ **No** ☐	Irritability?
Yes ☐ **No** ☐	Muscle tension?
Yes ☐ **No** ☐	Trouble falling asleep or staying asleep, or restless and unsatisfying sleep?
Yes ☐ **No** ☐	Does your anxiety interfere with your daily life?
Yes ☐ **No** ☐	Have you experienced changes in sleeping or eating habits?

More days than not, do you feel:

Yes ☐ **No** ☐	Sad or depressed?
Yes ☐ **No** ☐	Disinterested in life?
Yes ☐ **No** ☐	Worthless or guilty?

During the last year, has the use of alcohol or drugs:

Yes ☐ **No** ☐	Resulted in your failure to fulfill responsibilities with work, school, or family?
Yes ☐ **No** ☐	Placed you in a dangerous situation, such as driving a car under the influence?
Yes ☐ **No** ☐	Gotten you arrested?
Yes ☐ **No** ☐	Continued despite causing problems for you and/or your loved ones

Having more than one illness at the same time can make it difficult to diagnose and treat the different conditions. Illnesses that sometimes complicate anxiety disorders include depression and substance abuse. With this in mind, please take a minute to answer the following questions

If you have answer YES more than 2 times for each section. Your answers reflect the presence of anxiety symptoms. It is advised to seek a psychiatric consultation.

THE MOOD DISORDER QUESTIONNAIRE

Instructions: Please answer each question to the best of your ability.

	YES	NO
1. Has there ever been a period of time when you were not your usual self and...		
...you felt so good or so hyper that other people thought you were not your normal self or you were so hyper that you got into trouble?	○	○
...you were so irritable that you shouted at people or started fights or arguments?	○	○
...you felt much more self-confident than usual?	○	○
...you got much less sleep than usual and found you didn't really miss it?	○	○
...you were much more talkative or spoke much faster than usual?	○	○
...thoughts raced through your head or you couldn't slow your mind down?	○	○
...you were so easily distracted by things around you that you had trouble concentrating or staying on track?	○	○
...you had much more energy than usual?	○	○
...you were much more active or did many more things than usual?	○	○
...you were much more social or outgoing than usual, for example, you telephoned friends in the middle of the night?	○	○
...you were much more interested in sex than usual?	○	○
...you did things that were unusual for you or that other people might have thought were excessive, foolish, or risky?	○	○
...spending money got you or your family into trouble?	○	○
2. If you checked YES to more than one of the above, have several of these ever happened during the same period of time?	○	○

3. How much of a problem did any of these cause you – like being unable to work; having family, money or legal troubles; getting into arguments or fights? *Please circle one response only.*

No Problem Minor Problem Moderate Problem Serious Problem

4. Have any of your blood relatives (i.e. children, siblings, parents, grandparents, aunts, uncles) had manic-depressive illness or bipolar disorder?	○	○
5. Has a health professional ever told you that you have manic-depressive illness or bipolar disorder?	○	○

SCORING THE MOOD DISORDER QUESTIONNAIRE (MDQ)

The MDQ was developed by a team of psychiatrists, researchers and consumer advocates to address a critical need for timely and accurate diagnosis of bipolar disorder, which can be fatal if left untreated. The questionnaire takes about five minutes to complete, and can provide important insights into diagnosis and treatment. Clinical trials have indicated that the MDQ has a high rate of accuracy; it is able to identify seven out of ten people who have bipolar disorder and screen out nine out of ten people who do not.[1]

A recent National DMDA survey revealed that nearly 70% of people with bipolar disorder had received at least one misdiagnosis and many had waited more than 10 years from the onset of their symptoms before receiving a correct diagnosis. National DMDA hopes that the MDQ will shorten this delay and help more people to get the treatment they need, when they need it.

The MDQ screens for Bipolar Spectrum Disorder, (which includes Bipolar I, Bipolar II and Bipolar NOS).

If the patient answers:

1. **"Yes"** to seven or more of the 13 items in question number 1;

AND

2. **"Yes"** to question number 2;

AND

3. **"Moderate"** or **"Serious"** to question number 3;

you have a positive screen. All three of the criteria above should be met. A positive screen should be followed by a comprehensive medical evaluation for Bipolar Spectrum Disorder.

ACKNOWLEDGEMENT: This instrument was developed by a committee composed of the following individuals: Chairman, Robert M.A. Hirschfeld, MD – University of Texas Medical Branch; Joseph R. Calabrese, MD – Case Western Reserve School of Medicine; Laurie Flynn – National Alliance for the Mentally Ill; Paul E. Keck, Jr., MD – University of Cincinnati College of Medicine; Lydia Lewis – National Depressive and Manic-Depressive Association; Robert M. Post, MD – National Institute of Mental Health; Gary S. Sachs, MD – Harvard University School of Medicine; Robert L. Spitzer, MD – Columbia University; Janet Williams, DSW – Columbia University and John M. Zajecka, MD – Rush Presbyterian-St. Luke's Medical Center.

[1] Hirschfeld, Robert M.A., M.D., Janet B.W. Williams, D.S.W., Robert L. Spitzer, M.D., Joseph R. Calabrese, M.D., Laurie Flynn, Paul E. Keck, Jr., M.D., Lydia Lewis, Susan L. McElroy, M.D., Robert M. Post, M.D., Daniel J. Rapport, M.D., James M. Russell, M.D., Gary S. Sachs, M.D., John Zajecka, M.D., "Development and Validation of a Screening Instrument for Bipolar Spectrum Disorder: The Mood Disorder Questionnaire." *American Journal of Psychiatry* 157:11 (November 2000) 1873-1875.

Alertness Solutions Sleep Debt Calculator

This year alone, the United States will accumulate a sleep debt of about 105,682,763,550 hours. And if you consider the world population, the sleep debt is even more staggering: about 2,321,894,629,470 hours. If these were financial figures, they would make most economists quake: we are in the midst of world-wide sleep bankruptcy - perhaps a full-fledged "sleep depression."

How much of this international sleep debt is yours? Compute your personal sleep debt using the following calculation.

Step 1: Over the last week, write how many hours of sleep you had per night?

		Example
Monday:	_____ hrs	Monday: _5_ hrs
Tuesday:	_____ hrs	Tuesday: _6_ hrs
Wednesday:	_____ hrs	Wednesday: _5_ hrs
Thursday:	_____ hrs	Thursday: _5_ hrs
Friday:	_____ hrs	Friday: _5_ hrs

Step 2: Total these: _____ hrs — Total: _26_ hrs

Step 3: Think about a day when you felt alert and at your top performance. How many hours of sleep did you get the night before? If you are not sure, put 8 hours. Then multiply that number by 5.

_____ hrs x 5 = _____ — _8.5_ hrs x 5 = _42.5_

Step 4: Subtract the number in Step 2 from the number in Step 3.

_____ - _____
Step 3 hours - Step 2 hours

_26_ - _42.5_ = _-16.5_ hrs
This is a sleep debt of 16.5 hrs—
Two nights of sleep in the red!

Results:

If the number is positive: Congratulations, your account is in the black! Keep getting your sleep.

If the number is negative: Your sleep account is in the red—you are carrying a sleep debt. Learn more about good sleep habits and alertness management to keep your sleep account— and your productivity— in the black.

Zung Depression Scale

Date: _____

Please read each statement and decide how much of the time the statement describes how you've been feeling during the past **2 weeks**. Respond to all statements.

Make check mark (✓) in appropriate column.	**A little of the time**	**Some of the time**	**Good part of the time**	**Most of the time**
1. I feel down-hearted and blue				
2. Morning is when I feel the best				
3. I have crying spells or feel like it				
4. I have trouble sleeping at night				
5. I eat as much as I used to				
6. I still enjoy sex				
7. I notice that I am losing weight				
8. I have trouble with constipation				
9. My heart beats faster than usual				
10. I get tired for no reason				
11. My mind is as clear as it used to be				
12. I find it easy to do the things I used to				
13. I am restless and can't keep still				
14. I feel hopeful about the future				
15. I am more irritable than usual				
16. I find it easy to make decisions				
17. I feel that I am useful and needed				
18. My life is pretty full				
19. I feel that others would be better off if I were dead				
20. I still enjoy the things I used to do				

Adapted from: Zung, W.W. (1965). A Self-Rating Depression Scale. *Archives of General Psychiatry, 12*: 63-70.

Scoring for Zung Depression Scale

Scoring Directions: 1) For each statement, look up your response and corresponding score (1-4). 2) Fill in the score for each statement under the last column labeled "Score." 3) Calculate your Total Score by adding up all 20 scores.

Statements	A little of the time	Some of the time	Good part of the time	Most of the time	Score
1. I feel down-hearted and blue	1	2	3	4	
2. Morning is when I feel the best	4	3	2	1	
3. I have crying spells or feel like it	1	2	3	4	
4. I have trouble sleeping at night	1	2	3	4	
5. I eat as much as I used to	4	3	2	1	
6. I still enjoy sex	4	3	2	1	
7. I notice that I am losing weight	1	2	3	4	
8. I have trouble with constipation	1	2	3	4	
9. My heart beats faster than usual	1	2	3	4	
10. I get tired for no reason	1	2	3	4	
11. My mind is as clear as it used to be	4	3	2	1	
12. I find it easy to do the things I used to	4	3	2	1	
13. I am restless and can't keep still	1	2	3	4	
14. I feel hopeful about the future	4	3	2	1	
15. I am more irritable than usual	1	2	3	4	
16. I find it easy to make decisions	4	3	2	1	
17. I feel that I am useful and needed	4	3	2	1	
18. My life is pretty full	4	3	2	1	
19. I feel that others would be better off if I were dead	1	2	3	4	
20. I still enjoy the things I used to do	4	3	2	1	
				Total Score:	

Scoring Results:
50-69 = Most people who are depressed score in this range. 70+ = severe depression. (Highest total score is 80.) If your score indicates depression, see a health care/mental health professional for further evaluation and treatment. Bring these test results to your appointment.

Evaluation

Veteran's Affairs Wellness Kit Workshop					
How useful do you feel this information is to you?	Definitely not	maybe	yes and no	somewhat	Definitely
Do you think you could share this information with someone?	Definitely not	maybe	yes and no	somewhat	Definitely
Was the time long enough?	Definitely not	maybe	yes and no	somewhat	Definitely
Will you look in the tool kit binder after the workshop?	Definitely not	maybe	yes and no	somewhat	Definitely
The presenter was: knowledgeable?	Definitely not	maybe	yes and no	somewhat	Definitely
Easy to understand?	Definitely not	maybe	yes and no	somewhat	Definitely
Spoke clearly?	Definitely not	maybe	yes and no	somewhat	Definitely

What was your favorite part of the workshop?

Anything you disliked about the workshop?

What other topics would you like to see included?

Any other comments?

---

thanks!

Anne

Appendix B: Consents for Phase One and Two

Phase One Consent

Dear Sir Or Madam:

I am writing to tell you about a research project entitled Veterans ' Affairs Behavioural Health Program: a Dialogue with Fire Service Members that you may be interested in and to ask if you would consider participating. The intent of this project is to provide behavioural health information to fire service members and subsequently, determine the outcome related to providing such information.

Your participation in this phase of this project will involve three hours of training regarding behavioural health during which you will participate in a dynamic classroom environment. After the workshop, the researcher will document general observations of member's reactions, body language signals, reception of information, and type of questions asked as well as your general evaluation of the workshop. No names will ever be recorded. All information that you provide during the data collections will be completely anonymous. Only the researchers involved in this project will ever have access to the data and it will be kept in a locked and secure place at the university for a period of five years, after which time it will be shredded and/or permanently deleted. Your name will not be connected with the data. Also, please be assured that once you volunteer to participate, you can still withdraw from the study at any time with no consequence and any information collected from you will be withdrawn and shredded and/or deleted.

There are no known risks associated with participating in this project and agreeing to participate in the training sessions will give you an opportunity to learn additional information about behavioural health.

I wish to inform you of the second phase of the project that will evaluate further aspects regarding this topic. In a private one hour interview, we will discuss your reaction to the firefighter role. As well, I wish to interview your spouse or significant other in how the firefighter job affects the home life.

If you would like to participate in phase one of the project, please complete and return the attached informed consent sheet and feel free to keep this information letter for further reference. A copy of the final overall results can be attained, upon completion of the project, by contacting me at the information listed below.

Thank you very much for your time and consideration. We look forward to hearing from you; if you have any further questions please feel free to contact me at any time. If at any time, you have concerns about the research project or the researcher, you may contact the UNBC Office of Research at 250-960-5820 or the UNBC Research Ethics Board (reb@unbc.ca).or my supervisor, Dr. Wagner at 250-960-6320.

Sincerely,

E. Anne Sommerfeld

MSc Community Health Graduate Student

250-960-6774

Veterans' Affairs Behavioural Health Program: A Dialogue with Fire Service Members

Researcher: Anne Sommerfeld

Research Participant Consent Form

Do you understand that you have been asked to be in a research study?	Yes	No
Has the attached information sheet been provided/ explained to you? *A copy must be given to you for you to keep.*	Yes	No
Do you understand the benefits and risks involved in participating in this research study?	Yes	No
Do you understand that you are free to refuse to participate or to withdraw from the study at any time? *You do not have to give a reason for your choice to withdraw*	Yes	No
Have you been able to ask questions and to discuss this research study?	Yes	No
Have the issues of anonymity and confidentiality been explained to you?	Yes	No
I understand this study has two phases and this consent is for phase one only.	Yes	No

This research study was explained to me by:

_____

I would like to participate in a follow-up phase regarding this information. Please call me at: 250-

_____.

I agree to participate in this study:

_____

Signature of Research Participant

_____

Printed Name of Research Participant

_____

Date of Participant's Signature

Phase Two Consent

Dear Sir or Madam:

I am writing to tell you about a research project entitled: Veterans' Affairs Behavioural Health Program: A Dialogue with Fire Service Members that you may be interested in and to ask if you would consider participating. The intent of this project is to provide behavioural health information to fire service members and subsequently, determine the outcome related to providing such information. It will also be submitted in partial fulfillment for a degree of Master of Science in Community Health.

Your participation in this phase of this project will involve one hour personal interview regarding behavioural health. All information that you provide during the data collection will be anonymous. Your name will not be connected with the data and will be replaced with a code number. Recorded versions of the interview will be transcribed with a code number only. The recordings will be destroyed after one year. Only the researchers who are involved in this project will ever have access to the written data and it will be kept in a locked and secure place at the university for a period of five years, after which time it will be shredded and/or permanently deleted.

There are no known risks associated with participating in this project and agreeing to participate in the interview. Also, please be assured that once you volunteer to participate, you can still withdraw from the study at any time with no consequence and any information collected from you will be withdrawn and shredded and/or deleted. If talking about stressful matters begin to bother you even at a later date, please talk to someone using the list of local help numbers and counselors provided on the back of this letter.

If you would like to participate in this project, please complete and return the attached informed consent sheet and feel free to keep this information letter for further reference. A copy of the final overall results can be attained, upon completion of the project, by contacting me at the information listed below.

Thank you very much for your time and consideration. We look forward to hearing from you; if you have any further questions please feel free to contact me at any time. If at any time, you have concerns about the research project or the researcher, you may contact the UNBC Office of Research at 250-960-5820 or the UNBC Research Ethics Board (reb@unbc.ca), or supervisor Dr. Wagner (wagners@unbc.ca), 250-960-6320

Sincerely,

E. Anne Sommerfeld

MSc Community Health Graduate Student

250-960-6774 (office), sommerf@unbc.ca

Telephone numbers of community services you or your family may need:

Community Service	Telephone number
Al-Anon (includes Family Groups & Alateen)	(250)563-7305
Alcoholics Anonymous	(250)564-7550
Canadian Mental Health Association	250 - 564 8644 http://www.cmhapg.ca
Child & Family Services	Youth support line 250-564-8336 Kids help phone 1-800-668-6868
Counsellor	Interlock Company- 24 hrs **1-800-663-9099** http://www.interlock-eap.com
Crime Stoppers	1-800-222-8477
Crisis Centre for Emotional Distress	**24 hrs** 250-563-1214 Prince George
Employee Assistance Program Contact	Interlock Company- 24 hrs **1-800-663-9099**

	http://www.interlock-eap.com
Family Support Group	Elizabeth Fry Society Family Resource Centre 250-563-7305
Gambling help line	24 hrs 1-888-795-6111
Hospital / Emergency Room	250-565-2000
Legal Aid, Legal Resources, Lawyer	250-564-9717 1-866-577-2525 provincial Lawline
Narcotics Anonymous – BC Region	(604) 873-1018
Parent Support Group	250-561-0607 1-888-561-0607
Poison Control	1-800-567-8911
Transition House / Shelter	250-563-7305 Phoenix Transition
Suicide Distress Line	1-800-784-2433

Private Counselling:

Walmsley & Associates: 250-564-1000 1512 Queensway Road, Prince George

Pastoral Counseling 250-564-6213 Rev. Pamela Laycock

Charis Counselling Services: 250-562-7882 13845 Flint Road, Prince George

Veterans' Affairs Behavioural Health Program: A Dialogue with Fire Service Members

Researcher: Anne Sommerfeld
Research Participant Consent Form

Do you understand that you have been asked to be in a research study?	Yes	No
Has the attached information sheet been provided/explained to you? *A copy must be given to you for you to keep.*	Yes	No
Do you understand the benefits and risks involved in participating in this research study?	Yes	No
Do you understand that you are free to refuse to participate or to withdraw from the study at any time? *You do not have to give a reason for your choice to withdraw*	Yes	No
Have you been able to ask questions and to discuss this research study?	Yes	No
Have the issues of anonymity and confidentiality been explained to you?	Yes	No

This research study was explained to me by:

_____E.Anne Sommerfeld

Print Name

I agree to participate in this study:

Date of Participant's Signature:

_____

Signature of Research Participant

Signature of Witness:

_____

Printed Name of Research Participant

_____

Appendix C

Following a semi-structured interview guide: includes questions about family situation, the effects of shift work, the firefighter role, specific traumatic events on the family, social supports and social challenges the family encountered, holistic health and current self-reported mental health status as it relates to behavioural health.

Demographics:

Please tell me about yourself; age, married for how long, children, ages? From Prince George area or not, went to school, higher education, length of time with PGFR,

Self: When you meet new people such as, how do you describe yourself? Ex. Hi I am Anne, nurse, mother of four, avid horse brusher… Are you reluctant to tell people your job? As a nurse, I often get health and very personal questions thrown at me….

What do you do on your days off?

Hobbies?

Do you like to spring into action or sit back to assess the situation?

Job: what is your role at PGFR?

You have been with PRFR for ___ long, what do you enjoy about the job?

Dislike?

Let's talk about calls. Any favourite types? How about the dreaded call? Can you tell me one of the worst calls you have had?

How do you deal with a 'bad' call?

Are you ever bothered later, by dreams or smells or sounds of an incident? What do you do about it?

How does your rank affect you? What is involved to "move up" is there more responsibilities?

How are the "office politics"?

Health:

How would you describe your personal health?

What if we break health up into: physical, social, psychological and spiritual/hope?

Does shift work impact your health?

Can you give me examples of how it affects your health?

What 'keepers' did you get from the health workshop at work?

Anything surprise you?

Home: What do you do when you are not at work? Do you hang out with friends? Other members or other groups of people?

How does the shift work impact your home life? Time with kids, wife, family gatherings, time for hobbies and friends?

Do you talk about work at home?

Do you feel you bring work home?

Any challenges

How does everyone get along? Any issues?

If a major problem cropped up, say for example cancer in a family member, how do you think your family would respond?

Last Question: is there anything you would like to tell the fire rescue management?

Women's Questions

Please tell me a bit about yourself. How long have you been together? Children?

How did you meet your husband? Was he a firefighter already?

So what do you do when your spouse is home, off shift? What kinds of things do you do as a family together?

How does the shift work impact on your family life? Have you found it stressful?

How is his sleep habits? Does he sleep usually, after his night shifts for example?

So does the four days on, four off rotation work well for your family?

Do you find he talks about his work at home at all?

Do you ever find that he's over-cautious with the kids, especially when they were younger, with safety things or worrying about their safety?

Did you ever worry about him on the job? Concerned about his health?

Would a phone line help when you are worried about him so you could check in with dispatch for example?

Does he have a particular hall that he likes to be at?

What do you hear about the calls, guys at work? Has anything really bothered him?

Do you have any family in the area? Do you get together with family? Does the shift work, you think, going to impact on visiting with family – Christmas, holidays, birthdays?

How well do you think your family could handle a major crisis? Like cancer or a stroke?

In the literature that I was reading, there's this drive to keep up. You're a firefighter's spouse. You have to keep up to a certain imagery. Have you ever come across that feeling at all?

Do you feel that he has changed at all over the years that he has been doing this? Has his personality changed any?

Last Question: is there anything you would like to tell the fire rescue management?