

# What do 911 Communication Workers need? A discussion of unique characteristics and possible intervention strategies

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## ABSTRACT

There is overwhelming literature regarding occupational stress, coping, and burnout within emergency responder populations, such as police, fire, and ambulance responder; however the pertinent literature often overlooks the importance of emergency (911) communications workers as the first point of contact in an emergency. The present paper discusses the unique qualities and worker characteristics of communication workers. These characteristics include shift-work, secondary trauma exposure, lack of nonverbal cues, emotional labour, hypervigilance, and lack of control. It also proposes several approaches for addressing occupational stress within this population, including a discussion of the need for tailored supports and possible primary, secondary and tertiary intervention strategies at the individual and organizational levels

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## RÉSUMÉ

Il existe une foule d'ouvrages sur le stress professionnel, la gestion du stress et l'épuisement professionnel des personnes qui doivent intervenir dans les situations d'urgence, telles que les policiers, les pompiers et les ambulanciers. Or, les écrits pertinents en la matière font souvent fi de l'importance des travailleurs du service de communication des urgences, le 911, qui est le premier point de contact pour le signalement des urgences. L'article porte sur les qualités uniques des travailleurs des communications et sur ce qui caractérise leur travail, notamment le travail par quarts, l'exposition secondaire aux événements traumatisants, l'absence de signaux non verbaux, l'effort émotionnel, l'hypervigilance et le manque de contrôle. L'étude propose également diverses méthodes pour traiter le stress professionnel vécu par ces travailleurs, et discute du besoin de mettre au point un soutien sur mesure à leur intention, dont, possiblement, des stratégies d'intervention primaires, secondaires et tertiaires sur une base individuelle et à l'échelle de l'organisme employeur.

'911, what is your emergency?' is a phrase many of us may never hear in our lifetime. In the middle of a crisis, little thought is given to who may answer that call. We often think of the stress and trauma that are experienced by 'first responders' such as police, fire, and ambulance workers, but the true first responders are in fact the ones on the phone lines. Sadly, these emergency communication workers are often overlooked and, therefore, little is known about them. Even less is known about the effects of stress and burnout in the communication worker population, or how to prevent or mediate the effects of this stress. This paper seeks to identify the effects of stress on 911 communication workers, discuss viable options for potentially mediating this stress, and directions for future research.

## Introduction

Emergency communication workers provide telecommunications services, using terminals and peripheral computerized equipment, to dispatch emergency vehicles (e.g., ambulance and police) in response to urgent situations within a given area (Ontario Provincial Police, 2009). They are located in centres available by telephone 24 hours a day, 7 days a week. When communication workers respond to telephone enquiries, they receive information from distressed callers and are often the first point of contact in an emergency. With this information, they dispatch emergency assistance, and prioritize assistance based on the urgency of the situation and availability of responders. They are both similar to, and different from, other emergency responders. Similar to other emergency workers, they work rotating shifts and are often the first point of contact for individuals in emergency situations. They also provide support to distressed individuals, use problem-solving, stress management, prioritization, and multi-tasking to manage the situation (Ontario Provincial Police, 2009); however, they do not have face-to-face contact with the individuals to which they are providing support. They rely solely on verbal communication to obtain information and operate at a distance which does



not allow the same sense of control that other emergency responders have. As a result, communication workers must rely heavily on the questions they pose and what they hear in the caller's language, voice, and surroundings to assess and respond. Since they are always the first contact, they rarely learn of the outcomes of the incidents with which they assist.

In general terms, workplace stress can be viewed as a process representing an individual's responses triggered by perceived lack of resources to solve a problem (Dalton, Elias, & Wandersman, 2007), and can be associated with short-term responses that are physiological (e.g., elevated blood pressure), psychological (e.g., rigidity) and behavioural (e.g., substance use; LaMontagne, Keegel, Louie, & Ostry, 2010). Burnout is the response to ongoing stress, causing a deterioration or depletion of emotional and cognitive resources (Shirom, 2003). If stress can lead to burnout, leading to increased mental and physical health problems, effective coping mediates these issues (Dalton, Elias, & Wandersman, 2007). In the existing literature, there is a large body of research describing the effects of stress, coping and burnout for emergency responders (such as police officers, fire responders, and ambulance workers), health care workers (such as hospital nurses and physicians), and mental health workers (such as psychiatric nurses, counsellors, and front-line staff) (see Swider & Zimmerman, 2010 for example). The literature, however, associated specifically with communication workers is sparse. Existing literature is largely related to critical incident stress and does not take into account the effects of occupational stress in response to everyday call taking and dispatch activities (Jenkins, 1997; Kapucu & Van Wart, 2006; Halpern, Gurevich, Schwartz, & Brazeau, 2008). Although these occupations have similar characteristics to those of communication workers, coping experiences can vary (Folkman, & Moskowitz, 2004), and the lack of research in this area makes it considerably more difficult to understand this particular group's experience of coping, or how to develop appropriate intervention strategies.

### **Workplace Characteristics of Communication Workers**

There are several characteristics that seem to contribute to workplace stress among communication workers. As previously noted, these characteristics include shift-work, secondary trauma exposure, lack of non-verbal cues, emotional labour, hypervigilance, and lack of control.

*Shift-work.* Shift-work challenges an individual's ability to obtain a good quality sleep (Moorcroft, 2003). Many shift workers experience poor quality and quantity of sleep due to disrupted circadian

rhythms (Moorcroft, 2003). Communication workers are required to provide continuous call taking around the clock. Shift work disturbs their circadian rhythms and many suffer from a condition known as 'shift lag', or desynchrony (Berger & Hobbs, 2006). In general, sleep that is obtained by shift-workers is of poorer quality because it is fragmented by arousals (Moorcroft, 2003). Sleep disturbances in shift-workers expose them to physical, mental, as well as emotional and social stress, and evoke significant problems with mood, health, mental skills and performance (Harrington, 1994).

*Secondary trauma.* Emergency responders are routinely exposed to primary trauma—the first-hand exposure to a tragic event resulting in experienced traumatic symptoms (Conner, 2007). Similarly, communication workers are at higher risk for experiencing secondary trauma (Jenkins, 1997)—where individuals do not typically witness the event themselves but may be traumatised through reading, hearing or talking about the event.

The diagnostic criteria for post-traumatic stress disorder (PTSD) in the DSM-IV (American Psychiatric Association, 1994) recognizes that learning about trauma, experienced by a family member or close friend, can elicit symptoms of PTSD. It has also been noted that secondary trauma can be a result of engaging empathetically with anyone who may have experienced trauma (Pearlman & Saakvitne, 1995). Similarly, communication workers routinely experience traumatic events through listening to the experiences of their callers (Lanier, 2008). Furthermore, compassion fatigue has been found to occur among those who have experienced secondary trauma with jobs in care-giving roles (like communication workers), where the worker focuses too much on others, without taking care of themselves (Compassion Fatigue Awareness Project, 2010).

Several symptoms are associated with secondary trauma and lack of self-care (i.e., utilizing self-awareness to address one's physical, mental, and emotional needs; Compassion Fatigue Awareness Project, 2010). Individual symptoms can include excessive blaming, bottled up emotions, isolation from others, complaints about administrative functions, poor self-care, re-occurrence of nightmares, flashbacks to traumatic event, and difficulty concentrating, chronic physical ailments such as gastro-intestinal problems, and recurrent colds. Among staff, these difficulties can result in high absenteeism, desire to break company rules, lack of flexibility, negativism towards management, and an inability to believe improvement is possible.

*Lack of nonverbal cues.* Those in helping professions (e.g., communication workers) communicate much of

their attending and listening through non-verbal behaviours, and their clients are often observed through non-verbal behaviour to determine what they are experiencing (Hill, 2009). There is some research to support the contention that some may rely more heavily on either verbal or nonverbal cues when detecting stress in others (Vande, Creek, & Watkins, as cited in Knapp & Hall, 2010). In addition, researchers (Archer & Akert, as cited in Hill, 2009) have suggested nonverbal behaviours have a superior role in communicating emotions than do verbal behaviours.

*Emotional labour.* Emotional labour is emotional regulation, and the display of particular emotions as part of one's job (Hochschild, as cited in Opengart, 2005). This concept is highly applicable to the work of communication workers who are expected to maintain a calm demeanour, and rational problem solving, when faced with crisis situations (Shuler & Davenport-Sypher, 2000). The challenge is greatest for those who, on the inside feel the emotional effects of the content and experience of the caller in crisis, while acting as if they are not affected. Emotional labour becomes burnout when the individual can no longer separate feelings of personal distress from the experience of the client (Kovacs, Kovacs & Hegedus, 2010).

*Hypervigilance.* Among police officers, for example, emotional survival is constantly threatened because of awareness of potential danger (Gilmartin, 2002). Hypervigilance is necessary for survival as it increases adrenaline to promote alertness, improved hearing, faster reaction time, elevated heart rate, and increased blood sugar (Herman, 1992). Gilmartin (2002), found recovery from this state takes approximately 18 to 24 hours. Work schedules create a Hypervigilance Biological Rollercoaster® with long-term effects resulting in burnout symptoms. Communication workers must maintain this balance between emotional regulation (through emotional labour) and the need to be quick, alert, accurate, and efficient. These hypervigilant reactions lead to increased adrenaline and an elevated heart rate which are also similar to the immediate reactions of those who have experienced primary or secondary trauma (Herman, 1992).

*Low control.* According to the workplace Demand-Control Model (Karasek & Theorell, 1990), if the workplace consists of too much demand, and not enough control, then it can affect health and well-being. Organizational interventions which increase perceived job control, by furthering the extent to which employees had discretion and choice in their work, improved stress-related outcomes (Bond & Bunce, 2001). Communication workers must balance emotional content with rational decision-making, despite having little control over the types of calls they

receive, or the outcome of these calls. As such, it would seem that increasing control in other aspects of the workplace would be significantly important to managing this Demand-Control Model, and thus their overall well-being.

Although a number of these characteristics are consistent with the communication worker population, many organizational interventions have been researched with other populations to address issues related to workplace stress. These organizational interventions have been classified into primary, secondary, or tertiary (Kendall et al., 2000, as cited by Caulfield, et al. 2004). Primary approaches include strategies to prevent occurrence of work stress, while secondary approaches are designed to change an individual reaction to stressors (e.g., by means of relaxation training and team building), and tertiary approaches are used to treat the symptoms of stress after they have been identified (Compassion Fatigue Awareness Project, 2010).

## Discussion

Organizational approaches focused on three levels of prevention have been further developed into strategies within each level (De Jonge & Dollard, as cited in Caulfield et al. 2004), emphasizing the individual, organization or both (Caulfield et al. 2004). For example, improving work content and career development, as well as workshops on communication, decision-making, and conflict management, are all initiatives that could be considered primary interventions at the organizational level. Peer support groups, coaching and career planning services, as well as critical incident group debriefings, could be considered secondary interventions at the organizational level. Other approaches like stress leave, sick leave, schedule changes, post-traumatic stress assistance programs, and individual/group psychotherapy, could all be considered tertiary approaches that would likely take place at the individual level.

Large companies, such as Google, have achieved positive results with workplace wellness programs (Reference for Business, 2012). These wellness initiatives are beneficial as an intervention strategy as they address a broad range of issues. For example, health problems, like cancer, heart disease, respiratory problems and hypertension, which have been linked to lifestyle choices such as smoking, poor nutrition, and lack of exercise, have shown to have a lowered frequency among those participating in workplace wellness programs (Reference for Business, 2012). In addition, absenteeism and turnover have been found to decrease, and productivity to increase (Reference for Business, 2012). Furthermore, wellness programs can be used as a primary, secondary, or tertiary or-

ganizational intervention. Similar results have also been achieved within the law enforcement profession.

Massachusetts State Police have produced interesting findings supporting the use of wellness programs through physical activity, time management, and compartmentalization strategies (Gilmartin, 2002). Paid physical activity is well received, utilized, monitored, and reinforced (Kotz, 2011). In addition, time management workshops, and clarity about time on the job and off the job, promote a sense of control and prioritization of aspects of one's life, allowing for the establishment of multiple roles and the ability to separate from work role when off the job (Boudo, 2009). Reduced sleep disturbance and increased healthy body mass were found among participants (Rajaratnam, et al., 2011), and the results were expected to also have protective effects against depression, anxiety and burnout (Kotz, 2011).

Regardless of the approach taken toward employing intervention strategies at an organizational level, communication centres need to assess the current climate within their organization in order to determine which themes seem to be causing stress via the characteristics previously discussed. It is quite possible that in one centre, communication workers could be feeling unqualified or unsupported in their role and could benefit from additional training, while another centre could be suffering from decreased morale and simple changes such as allowing 'dress down days', or allowing potluck dinners once a month, could help to mediate these issues. Of course, situations are often much more complex and may require multiple strategies in conjunction with policy changes or administrative reorganization.

In the meantime, while this topic is still fairly unresearched, and communication centres have not "bought into" these organizational intervention strategies, workers can do their own part at the individual level, such as maintaining a healthy lifestyle by including balanced meals/snacks throughout a shift, and in daily life, by ensuring adequate exercise. Engaging in physical activity within 24-hours of experiencing increased adrenaline would help combat the effects of the Hypervigilance Biological Rollercoaster® (Gilmartin, 2002), and also acts as a primary, secondary or tertiary intervention strategy at the individual level. Communication workers can also take an active role in understanding their ability to cope through increasing their own self-awareness and setting up their daily lives to be conducive to engaging in self-care routines, some of which could be beneficial to explore through the support of a counsellor (Compassion Fatigue Awareness Project, 2010).

## Conclusion

While there is some evidence about the effectiveness of particular individual coping strategies among emergency service providers, and growing evidence of the impact of staff workplace wellness programs, the literature on workplace stress among communication workers is minimal. Although this population is often overlooked, the implications of not finding sound interventions is greater than absenteeism, turnover, and decreased productivity, as the real price we pay is public safety when these individuals are not at their best. In order to more fully explore strategies that would be most applicable to the communication worker population, more research would need to be conducted. Ideally, quantitative methods exploring the efficacy of primary, secondary or tertiary interventions, that are designed with their unique organizational profile and characteristics in mind, would be most beneficial, not only for the workers themselves, but also for our communities and our public safety.



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