VIRTUTIS INCUNABULA

Vol. 07, No. 1 (2020)

Work-related Stress and Coping Mechanism among Bureau of Fire Protection Personnel in Bacolod City

Vincent Benedict Rosco[1], Paulo del Carvajal[1], Harvey Montaño[1], Chris Feli Joy P. Tajonera[2], and Loriejen F. Dequilato[1]

[1] College of Criminal Justice Education, University of Negros Occidental-Recoletos, Incorporated, Bacolod City, Philippines

[2] Student Development and Placement Center, University of Negros Occidental-Recoletos, Incorporated, Bacolod City, Philippines

ABSTRACT

What happens when our rescuers need rescuing after work? Studies show that firefighters most likely encounter different work-related stressors, especially ones that cause Post-traumatic Stress Disorder, among others. This study deals with quantitative research utilizing a survey method that measured the work-related stress and coping mechanisms of Bureau of Fire Protection personnel in Bacolod City. Seventy Bureau of Fire Protection personnel employed for the year 2019 at seven sub-stations were chosen to answer a questionnaire prepared by the researchers. The results revealed that the level of work-related stress is generally moderate. The same level was shown when the respondents were grouped according to age, sex, years of service, family income, and educational attainment. The levels of coping of the respondents in terms of active coping and acceptance coping are generally high but moderate in passive coping and avoidance coping. Moreover, low avoidance coping was shown in respondents serving five years or less and those taking or with a master's degree. Furthermore, there are no significant differences among the respondents' work-related stress levels. No significant differences were present in the respondents' active, passive, acceptance, and avoidance coping levels. No significant relationships between work-related stress and active, passive, and avoidance coping were shown in correlation. Meanwhile, a significant relationship was noted between work-related stress and acceptance coping. In conclusion, the respondents' results showed that firefighting personnel accept the consequences of their jobs as they move on to another day serving and protecting the community.

Keywords

active, acceptance, avoidance, coping mechanism, passive, work-related stress

INTRODUCTION

Firefighting is a complex occupation dealing with internal and external fire prevention, protection, and rescue obligations. This line of work is risk-ridden as firefighters save the lives as well as the property of

civilians. Firefighters are routinely exposed to events that cause shock and trauma. Although these repeated experiences rarely progress to post-traumatic stress disorder and other developments, firefighters are still considered to be a vulnerable population when it comes to trauma.

According to Papazoglou and Tuttle (2018), being a firefighter is a service profession that average citizens rely on heavily in case of emergencies. Firefighters do not just run into burning buildings; they are often the first responders on the scene of explosions, natural disasters, wildfires, traffic accidents, and other crises. The job demands both physical and mental consequences upon those who perform it. One of the primary risks of being a firefighter is physical injury. Firefighters are susceptible to burns, smoke inhalation, and crush injuries from collapsing structures. They can suffer from heat exhaustion and long-term job-related illnesses such as asthma, persistent coughing, heart disease, cancer, and lung damage. Due to the highly physical nature of the job, all matters of bodily harm can befall firefighters in the line of duty. Some physical fallout from the profession may not manifest until years later.

In addition to the physical risks, firefighters face potential mental trauma, particularly in situations involving mass casualties. As first responders, firefighters and other rescue personnel are often faced with high stress from the high-stake environment of trying to attend to as many people as possible by removing them from danger and aiding treatment. The elevated stress levels do not always dissipate when they leave the scene. Psychosocial stress also comes in the way when it adversely influences the firefighters as their job stressors for the most part. Thus, they need job stress management to minimize their psychological problems (Ha et al., 2008).

Much like soldiers engaged in war zone conflicts, firefighters are susceptible to developing post-traumatic stress disorder or PTSD. A study by Bryant and Harvey (1996) mentioned that most firefighters feel their safety is threatened to make them experience a significant level of post-traumatic stress. Post-traumatic stress occurs when a person in a rescue or service role witnesses a traumatic event that marks an indelibility in the psyche. It can lead to flashbacks, poor sleeping habits, anxiety, and depression. People living with PTSD may become withdrawn and despondent or angry, hostile, and destructive (Papazoglou & Tuttle, 2018).

This study was anchored on Richard Lazarus' Transactional Theory of Stress and Coping, also known as the Psychological Stress Model (Krohne, 2002), and Theory of Cognitive Appraisal (Sincero, 2012), which presents stress as a response, a stimulus, and a transaction wherein it varies with a person's response, adaptation, or coping strategies. Lazarus developed the theory in an attempt to explain stress as more of a dynamic process (Lazarus, 1984; Stangor & Walinga, 2019), implying that stress is a product of a transaction between a person and his or her complex environment.

Different stressors may emerge during an event, situation, cue, and condition. How an individual appraises a stressor may determine how he or she copes with or responds to the stressor, which depends on the person's capacities, skills and abilities, constraints, resources, and norms. As described by Lazarus (1984), coping implies a more specific process, whether an individual believes he or she has the resources to respond effectively to the challenges brought by a stressor or change (Lazarus, 1984; Stangor & Walinga, 2019). Coping strategies may vary from positive thinking to denial. Positive thinking primarily helps with stress management and can improve one's mental health (Mayo Clinic, n.d.).

Papazoglou and Tuttle (2018) mentioned problems firefighters face with an «unstable work-life balance" where firefighters work long hours within unstructured schedules, creating a viable work-life

balance challenging. Conventional family life may be affected, which can lead to familial disconnection. The need to work long hours is an especially critical factor in firefighters who are station-deployed to combat fires or assist in large natural disasters. The long hours further contribute to the overall stress of the position. Even though firefighters are trained and educated about the potential physical and mental stresses the job can bring, the realization of its full impact will eventually surface on the job.

Moreover, Lazarus and Folkman (1986) also conducted a study on the Cognitive Theories of Stress, which implied that the forms of coping vary depending on what is at stake and the options for the person's coping. Coping is also differentially related to satisfactory and unsatisfactory encounter outcomes, implying a relationship between the options and several other factors and the outcomes of stressful encounters (American Psychological Association, n.d.).

A succeeding study by Lazarus and Folkman (1987) draws attention to emotional stress and coping. It compares younger and older community-dwelling adults to daily hassles and eight kinds of coping. A developmental interpretation of the study mentioned that there are inherent, stage-related changes in how people cope as they age. In contrast, a contextual interpretation said that age differences in coping result from changes in what people must cope with. The findings indicated that there are apparent age differences in hassles and coping.

The study utilized a self-report questionnaire to determine the relationship between social problem-solving abilities, work-related stress, and psychological distress. It assessed 78 firefighters from three United Kingdom regional fire service divisions. The results indicated that work stress and problem-solving abilities accounted for a significant 49 percent of the variance in psychological distress scores. The interactions between organizational and incident-related stress and problem-solving abilities accounted for a small but significant amount of additional variance. Individuals in different fire service ranks reported similar levels of organizational stress, self-appraised problem-solving abilities, and psychological distress. However, watch members had higher incident-related stress levels. There were also differences in the organizational and incident-related stressors pattern between fire service ranks. The results posed potential importance in intervention strategies for stress management in the firefighting service (Baker & Williams, 2001).

On the other hand, despite statements from national firefighting service organizations, including the International Association of Fire Fighters and the International Association of Fire Chiefs, promoting a diverse workforce related to gender within the fire service, rates of women firefighters remain very low. Thus, research into the vast gender disparity continues as a high priority. Recent years have seen several large-scale studies on firefighters and nearly all have eliminated women from the sample due to the small sample size. All of these are according to an epidemiological study on females in a large, randomly selected cohort of firefighters designed to assess health outcomes and health risk behaviors identified as most relevant to the firefighting service (Jahnke et al., 2012).

For too many years, firefighting service training and formal education were pitted against each other. In the first half of the 20th century, firefighting was considered a physical trade with an established training regimen. Higher education was not even on its horizon yet. However, in 1944, the G.I. Bill provided money for college or vocational education to returning World War II veterans, drawing thousands of returning veterans into higher education. College enrolments soared, and community colleges sprang up and grew nationwide. Many returning veterans who entered the firefighting service also wanted

to claim the educational benefits made available through the G.I. Bill, but the system lacked structured fire service education programs. The funding windfall and an interest in the firefighting service fueled the development of early fire science programs. As a result, some firefighters who combined training with higher education routinely achieved higher test marks.

However, as higher education gained a toehold in the fire service, the training-only philosophy was replaced by a new approach. Enterprising instructors transposed established fire training curricula into college curricula so a firefighter could get both training and college credit for the same effort. Nevertheless, without planning or coordination, the result was a hodgepodge system that often failed. Today, it is recognized that both training and education comprise essential parts of firefighting service competency. Consider them side-by-side, and one will see their unique attributes and complementary values, even in dealing with stress and coping (Telling & Serapioni 2019).

Specific psychological characteristics of firefighters are associated with an increased risk of PTSD. Firefighters with high levels of hostility and low self-efficacy developed more post-traumatic symptoms, depression, anxiety, and alexithymia or a deficiency in understanding, processing, or describing emotions. In a longitudinal study of Australian firefighters engaged in a bushfire disaster, neither the severity of exposure nor property losses were significant determinants of morbidity at the last follow-up. Pre-morbid factors such as neuroticism and a history of psychiatric disorders were better predictors of post-traumatic stress symptoms. Fear of emotions and negative social interactions have also been associated with high levels of post-traumatic stress symptoms. In a cross-sectional study, support from the trade union, employers, family, and friends was associated with less depression; this may indicate that social support protects against depression, and it may also imply that individuals who have less depressive experiences with other people's actions are more positive and are better able to obtain support from their network (Skogstad et al., 2013).

Firefighting personnel are also exposed to stressful situations, traumatic incidents, and environmental extremes such as heat, cold, and noise – all of which require adaptational measures (Lazarus, 1984). Working under adverse conditions may increase the stress firefighting personnel experience while performing emergency work on a scene. For example, the Cerritos Air Crash of 1986 was a mass casualty event causing extreme stress and psychological distress among firefighting personnel responding to the scene (Hokanson & Wirth, 2000).

After involvement in a disaster or a traumatic incident, firefighting personnel may be at risk for acute stress disorder leading to PTSD. Firefighting personnel may experience increased rates of psychiatric symptoms such as depression, anxiety, loss of appetite, lack of sleep, and constant worry or fear after witnessing or experiencing a traumatic event. These symptoms can lead to a significant increase in psychiatric problems and may require professional intervention (Haslam & Mallon, 2010).

This study focused on the work-related stress of the Bureau of Fire Protection (BFP) personnel and their coping tendencies. The firefighting personnel are believed to have strengths, weaknesses, and limitations in saving lives during emergencies. Risking their lives to help people is sometimes disregarded when people blame rescuers or firefighters for the death or injury of their neighbors, close friends, or family members. Most situations call for the rescuers of firefighters to be solely at fault without realizing the risk they take to help. This risk is called the Heroic Bravery of Physical Courage (Gulliford & Chandler, 2019). People do not realize the stress and trauma that may occur within or may have been experienced by

the firefighting personnel, which eventually becomes a factor in contributing to their work-related stress.

METHODOLOGY

This study used a descriptive design with a survey method. It used adequate and accurate interpretation of the findings to draw facts and, eventually, a conclusion from the said data or facts where it described, with emphasis, what existed in current conditions such as practices, situations, or any phenomena which intended to systematically describe and explore the work-related stress and coping mechanisms of a particular population (McCombes, 2019); in this case, local firefighters in Bacolod City.

The study's respondents were BFP personnel actively on duty within Bacolod City sub-stations: Sum-ag, Pahanocoy, Libertad, Granada, Rodriguez, Lopez Jaena, and Banago Central. Purposive sampling was used to determine the respondents. Since the focus of the study is the personnel under the BFP, a non-probability sample based on population characteristics and the study was the best type of sampling to adapt. Seventy respondents were chosen from the overall Bacolod City BFP personnel.

The researchers employed a self-made questionnaire guided by Fire Personnel Work-related Stress and Coping Mechanisms. Part I contained the Demographic Profile Sheet, which was utilized to gather the respondents' personal information, such as their age, sex, number of years of service, educational attainment, and combined family income.

Age was determined and categorized into "young" and "old". Sex was categorized into "male" and "female". Their number of years of service was categorized into «five years and below", "six to 10 years", and "11 years and above". Educational attainment was categorized into "high school graduate", "college graduate", and "post-graduate". Their combined family income was categorized into "less than Php 21,000 or low", "Php 22,000 to Php 47,999 or average", and "Php 48,000 and above or high".

Part II contained a questionnaire on Work-Related Stress. Part III contained evaluations on their coping mechanisms which were categorized as "Active", "Passive", "Avoidance", and "Acceptance".

The study's pilot testing revealed reliability coefficients of 0.7841, interpreted as "Acceptable" for work-related stress, and 0.7604, interpreted as "Acceptable" for coping mechanism questionnaires, making the research instruments reliable. The validity test was conducted on both instruments. The results revealed a validity index of 4.00, making the instruments valid.

The researchers received permission from the Dean of the College of Arts and Sciences and the College of Criminal Justice Education and the Bacolod City BFP Director to conduct the study. As soon as permission was granted, the reliability testing and validation of the instruments were established.

Before collecting data and proceeding with the survey, orientation, and briefing were conducted with the study's respondents. After gathering and tabulating all data, the data and its results were analyzed, and the statistician was endorsed for statistical treatment.

After conducting the survey, the researchers encoded and analyzed the data using descriptive analysis to describe the existing phenomena, comparative analysis to see the significant differences, and correlational analysis to determine the significant relationships between the results and its factors

Data from the descriptive analysis were measured by finding the mean and standard deviation. Data from the comparative analysis were treated using a T-test and Two-Factor Analysis of Variance (ANOVA). Data from the correlational analysis were treated using the Pearson Product Moment of Correlation.

The researchers employed strict confidentiality

regarding the respondents' answers. The gathered personal data were deleted after the study. The respondents who wished to participate in the study were purely voluntary, freely giving their consent to the researchers.

RESULTS, DISCUSSION, AND IMPLICATIONS

Based on the results, it was discovered that the level of stress as a whole (M=2.97, SD=0.61) is moderate. Young (M=2.96, SD=0.59) and old (M=3.08, SD=0.75) personnel have moderate stress levels when grouped according to age. Regarding sex, male (M=2.95, SD=0.58) and female (M=3.03, SD=0.71) personnel have moderate stress levels. Those with five years of service and below (M=2.87, SD=0.53), six to 10 years of service (M=3.03, SD=0.63), and 11 years of service and above (M=3.15, SD=0.83) have moderate levels of stress. In terms of family income, those with low income (M=2.47, SD=1.10) have low levels of stress, while those with average income (M=3.03, SD=0.53) and those with high income and above (M=2.95, SD=0.64) have moderate levels of stress. With regards to educational attainment, college graduates (M=2.96, SD=0.62), graduate school students (M=2.80, SD=0.28), personnel with master's degree units (M=3.07, SD=0.06), and master's degree holders (M=3.45, SD=1.06) have moderate stress levels.

As Lazarus and Folkman (1987) emphasized in their study on the Transactional Theory of Stress and Coping, an individual who deals with stress faces a transaction between himself and his complex environment. Though the work of the BFP personnel is complex, stress related to work may have a moderate effect. With the Theory of Transactional Analysis, we can conclude that the BFP personnel conceptualizes stress on a moderate level regardless of how they cope, whether through Active, Passive, Avoidance, or Acceptance coping mechanisms.

When the respondents are taken as a whole, the level of coping through Active Coping (M=4.00, SD=0.53) is high; this means that the BFP personnel cope with stress well by taking actions that could easily get rid of stressors and plan on what to do next. The level of coping in terms of Passive Coping (M=3.47, SD=0.57) is moderate. The BFP personnel have moderate tendencies to deal with emotions while confronting their problems brought about by stress. In terms of Avoidance Coping (M=2.60, SD=0.71), a moderate level was shown, which makes BFP personnel carry tendencies to avoid confrontation toward stress and the feelings that come along with so far as denial of the current situation. Acceptance Coping (M=3.73, SD=0.67) of the BFP personnel is high; this means that the respondents deal with stress as a normal and given part of their job and live outside the job.

A salient result on low Avoidance Coping was shown in respondents serving the BFP for five years or less and those who are taking or with master's degrees; this implies that they have fewer tendencies to avoid stress and stress-related problems and would rather confront them.

Independent Samples T-test was used to determine whether there was a significant difference in the level of work-related stress when the respondents were grouped according to age and sex. There was no significant difference in the level of work-related stress when the respondents were grouped according to age [$t(68)=0.516$, $p=0.607$] and sex [$t(68)=0.452$, $p=0.652$].

Although the rate or number of women in the firefighting occupation is low, their stress levels did not vary. This result supported the claim of Papazoglou and Tuttle (2018) that firefighters face stress regardless of race, gender, age, and other demographics.

Analysis of Variance was used to determine the significant difference in the levels of work-related stress when the respondents were grouped according to the number of years of service, family income, and

educational attainment. There was no significant difference in the level of work-related stress when respondents were grouped according to the number of years of service [F(2, 67)=0.833, p=0.439], family income [F(2, 67)=1.231, p=0.298], and educational attainment [F(2, 67)=0.833, p=0.439].

The Independent Samples T-test was used to determine whether there was a significant difference in the levels of coping when respondents were grouped according to age and sex.

In terms of Active Coping, there was no significant difference in the level of coping when respondents were grouped according to age [t(68)=0.997, p=0.322] and sex [t(68)=0.549, p=0.585].

In terms of Passive Coping, there was no significant difference in the levels of coping when respondents were grouped according to age [t(68)=1.099, p=0.276] and sex [t(68)=0.911, p=0.365].

In terms of Avoidance Coping, there was no significant difference in the levels of coping when respondents were grouped according to age [t(68)=0.209, p=0.835] and sex [t(68)=1.228, p=0.224].

In terms of Acceptance Coping, there was no significant difference in the levels of coping when respondents were grouped according to age [t(68)=0.195, p=0.846] and sex [t(68)=1.944, p=0.056].

Analysis of Variance was used to determine whether there was a significant difference in the level of coping when the respondents were grouped according to the number of years in service, family income, and educational attainment.

When the respondents were grouped according to the number of years in service, there was no significant difference in the level of coping in terms of Active [F(2, 67)=0.325, p=0.724], Passive [F(2, 67)=0.415, p=0.662], Avoidance [F(2, 67)=0.841, p=0.436], and Acceptance [F(2, 67)=0.923, p=0.402] coping mechanisms.

When respondents were grouped according to family income, there was no significant difference in the level of coping in terms of Active [F(2, 67)=1.676, p=0.195], Passive [F(2, 67)=1.336, p=0.270], Avoidance [F(2, 67)=0.265, p=0.768], and Acceptance [F(2, 67)=0.323, p=0.725] coping mechanisms.

When respondents were grouped according to educational attainment, there was no significant difference in the level of coping in terms of Active [F(2, 67)=1.147, p=0.337], Passive [F(2, 67)=0.893, p=0.449], Avoidance [F(2, 67)=1.415, p=0.246], and Acceptance [F(2, 67)=0.627, p=0.600] coping mechanisms.

Pearson Product Moment Correlation was used to determine the significant relationship between work-related stress with each coping mechanism. There was no significant relationship between work-related stress and Active [r(68)=-0.192, p=0.111], Passive [r(68)=0.209, p=0.082], and avoidance [r(68)=0.157, p=0.193] coping mechanisms. However, a significant relationship existed between work-related stress and Acceptance Coping [r(68)=-0.348, p=0.003], which implies that the respondents often employed Active Coping and Acceptance Coping when confronting stress at work. Among the coping mechanisms, Acceptance Coping, in particular, is significantly related to work-related stress in the form of accepting work pressure, realizing the job's nature, keeping in mind that accidents are beyond their control, and finding peace when things can no longer be changed. These are effective ways that could downplay the stress BFP personnel face.

CONCLUSION AND RECOMMENDATIONS

The respondents perceive a general moderate stress level in their day-to-day jobs in the BFP. Moreover, it was identified that the young and old personnel experience moderate stress levels when grouped according to age. With regards to their sex, male and female personnel also experience moderate levels of stress. Regarding the respondents' years of service, those with five years and below, six to 10 years of service, and 11 years of service and above experience

moderate stress levels.

In terms of family income, those with less than Php 21,000 income experience low-stress levels. Those with Php 22,000 to Php 47,999 and those with Php 48,000 incomes and above experience moderate stress levels. Regarding their educational attainment, college graduates, graduate school students, and those with master's degree units experience moderate stress levels.

Generally, the respondents' coping mechanisms are as follows: Active Coping is highly experienced; Passive Coping is moderately experienced; Avoidance Coping is moderately experienced; Acceptance Coping is highly experienced; this could mean that the respondents often deal with their work-related stress actively as they accept it as part of the job.

There was no significant difference in the level of work-related stress when respondents were grouped according to age and sex. There was also no significant difference in the level of work-related stress when respondents were grouped according to their number of years in service, family income, and educational attainment.

When respondents were grouped according to age, sex, number of years in service, family income, and educational attainment, there was no significant difference in the level of active, passive, avoidance, and acceptance coping.

There were no significant relationships between work-related stress and Active Coping, work-related stress and Passive Coping, and work-related stress and Avoidance Coping. However, there was a significant relationship between work-related stress and Acceptance Coping.

With these, the respondents' results showed promise in firefighting personnel as they accept the consequences that their jobs entail, moving on to another day serving and protecting the community.

Based on the results of the study, the researchers made the following recommendations:

The BFP should conduct stress intervention programs for its personnel to help them cope with work-related stressors. The national government should prioritize and finance these programs.

Fire personnel should engage in physical activities that can help them cope with their stress, as well as psycho-emotional exercises such as prayer, meditation, counseling, and the like. Apart from individual exercises, firefighting personnel must strengthen their ties with the community through different initiatives, awareness campaigns, and educational conferences.

The researchers recommend that the community also participate in the BFP's campaign programs to gain awareness of fire prevention and risk management.

The researchers suggest that Criminology students should be more aware of the possible outcomes as future law enforcers and maintain a positive outlook in performing their tasks. At the same time, they should adapt to the nature of the firefighting vocation during their on-the-job training or internship as trainees.

REFERENCES

American Psychological Association (n.d.). Stress Relief is Within Reach. Retrieved September 2019 from https://www.apa.org/topics/stress.

Baker, S. R., & Williams, K. (2001). Relation between social problem-solving appraisals, work stress and psychological distress in male firefighters. *Stress and Health*, *17*(4), 219–229. https://doi.org/10.1002/smi.901

Bryant, R. A., & Harvey, A. G. (1996). Posttraumatic stress reactions in volunteer firefighters. *Journal of traumatic stress*, *9*(1), 51–62. https://doi.org/10.1007/BF02116833

Gulliford, L., & Chandler, R. (2019). *Can I tell you about courage: a helpful introduction for everyone*. Jessica Kingsley Publishers. https://www.jkp.com/uk/

can-i-tell-you-about-courage.html

Ha, J., Kim, D. I., Seo, B. S., Kim, W. S., Ryu, S., & Kim, S. G. (2008). Job stress and psychosocial stress among firefighters. *Korean Journal of Occupational and Environmental Medicine*, *20*(2), 104. https://doi.org/10.35371/kjoem.2008.20.2.104

Haslam, C., & Mallon, K. (2003). A preliminary investigation of post-traumatic stress symptoms among firefighters. *Work & Stress*, *17*(3), 277–285. https://doi.org/10.1080/02678370310001625649

Hokanson, M., & Wirth, B. (2000). The critical incident stress debriefing process for the Los Angeles County Fire Department: automatic and effective. *International journal of emergency mental health*, *2*(4), 249–257. https://pubmed.ncbi.nlm.nih.gov/11217156/

Jahnke, S. A., Poston, W. S., Haddock, C. K., Jitnarin, N., Hyder, M. L., & Horvath, C. (2012). The health of women in the US fire service. *BMC women's health*, *12*, Article 39. https://doi.org/10.1186/1472-6874-12-39

Krohne, H. W. (2002). *Stress and coping theories*. Johannes Gutenberg-Universität Mainz Germany. https://poliklinika-harni.hr/images/uploads/440/teorije-nastanka-stresa.pdf

Lazarus, R. S. (1984). *Stress, appraisal, and coping*. Springer. https://books.google.com.ph/books?hl=en&lr=&id=i-ySQQuUpr8C&oi=fnd&pg=PR5&ots=DhFQivjkPf&sig=OZHrwRZZ8AhR9wj1zJFZm7VxZHs&redir_esc=y#v=onepage&q&f=false

Lazarus, R. S., & Folkman, S. (1986). Cognitive theories of stress and the issue of circularity. In *Springer eBooks*. https://doi.org/10.1007/978-1-4684-5122-1_4

Lazarus, R. S., & Folkman, S. (1987). Transactional theory and research on emotions and coping. European Journal of Personality, 1(3), 141-169. https://doi.org/10.1002/per.2410010304

Mayo Clinic, (n.d.). *Positive thinking: Stop negative self-talk to reduce stress.* Mayo Clinic.org. https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/positive-thinking/art-20043950

McCombes, S. (2019, May 15). *Descriptive research | definition, types, methods & examples*. Scribbr. https://www.scribbr.com/methodology/descriptive-research/

Papazoglou, K., & Tuttle, B. M. (2018). Fighting police trauma: practical approaches to addressing psychological needs of officers. *Sage Open, 8*(3). https://doi.org/10.1177/2158244018794794

Sincero, S. M. (2012, May 24). *Stress and cognitive appraisal*. Explorable.com. https://explorable.com/stress-and-cognitive-appraisal

Skogstad, M., Skorstad, M., Lie, A., Conradi, H. S., Heir, T., & Weisæth, L. (2013). Work-related post-traumatic stress disorder. *Occupational medicine (Oxford, England)*, *63*(3), 175–182. https://doi.org/10.1093/occmed/kqt003

Stangor, C., & Walinga, J. (2019*). Introduction to psychology-1st Canadian edition introduction to psychology-1st Canadian edition*. https://opentextbc. ca/introductiontopsychology.

Telling, K., & Serapioni, M. (2019). The rise and change of the competence strategy: Reflections on twenty-five years of skills policies in the EU. *European Educational Research Journal*, *18*(4), 387-406. https://doi.org/10.1177/147490411984055