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Managing Stress in a Constantly-Changing Workforce

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A thesis

presented to

the faculty of the Department of Allied Health Sciences

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Master of Science in Allied Health

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by

Lorri Burch-Hubbard

May 2020

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Dr. Ester L. Verhovsek-Hughes, Chair

Dr. Randy L. Byington

Dr. Deborah Dotson

Keywords: Stress, Workforce, Allied Health, Stress Management, Staff Reduction

## ABSTRACT

### Managing Stress in a Constantly-Changing Workforce

by

Lorri Burch-Hubbard

When staffing reductions occur in the workplace, staff left behind may face increased stress, may not be given the support they need to manage the feelings caused by the reduction. This study was conducted to evaluate the impact of stress caused by staffing reductions has on medical technologists (MT), medical technicians (MLT) and respiratory therapists (RT), and to identify any common methods of stress management used by those staff who remain in the organization.

Literature research showed the negative impact stress can have on individuals when it is not addressed, such as decreased work performance, health issues, and even the inability to lead a normal life.

After an extensive review of the data, no statistically significant common methods of coping strategies were identified between these two professions using prescribed variables. However, the same three strategies used to cope with staffing reduction-related stress were ranked at the top in both professions.

## DEDICATION

To my husband, Bill, and our daughter, Kimberly. Without your unlimited support, this degree would not be possible. Thank you for always being there, and always understanding when I was not able to participate in the “family fun.” I love you both very much.

IN REMEMBRANCE

In remembrance and honor of my parents, Fred and Barbara Burch. I'm so proud to be your daughter.

## ACKNOWLEDGEMENTS

I would be remiss if I did not first thank my heavenly Father for the strength He provided to keep going when just putting one foot in front of the other seemed to require a Herculean effort. Without Him, I could do nothing!

I would like to express my sincerest appreciation to my committee chair, Dr. Ester Verhovsek, for her constant help and guidance through not only this project but throughout the entire endeavor to achieve my Master's degree. Your patience, support and friendship are immeasurable. Thank you for continuing to "push" me when I wanted to give up.

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## CHAPTER 1

### INTRODUCTION

With the news that an organization's budget is in jeopardy and staff reductions may soon follow, the corporate rumor mill often shifts into high-gear, with coworkers whispering in the hallways and gathered in cubicles. Staff become fearful their position will be eliminated; however, when the names of affected staff are made known, staff whose names do not appear on the list first experience an overwhelming sense of relief, often immediately followed by overwhelming sense of guilt, known as "survivor's guilt" (Densley, 2012). "Because employee costs exceed 40 percent of a company's budget, downsizing is often a necessary method of cutting costs to remain profitable in difficult economic times" (Molinsky & Margolis, 2006, p. 145), however, one of the risks of downsizing is the impact it has on remaining staff (Molinsky & Margolis, 2006).

Aleccia (2008) reported that "more than two million workers were displaced from employment in 2008, a half million of which occurred in the month of November 2008 alone" (para. 4). Alecca went on to state that while the cuts clearly impacted those who lost their jobs, the workforce reduction "...also had a powerful impact on a less obvious population: the co-workers left behind" (para. 4). Kocher (2013) later reported that "[o]ver half of the \$2.6 trillion spent on health care in the United States in 2010 was wages for health care workers, and labor productivity has historically worsened at a rate of 0.6% per year" (para. 1), and the results of a national survey showed that "...one in five workers laid off from a job during the last five years are still unemployed and looking for work..." (Van Horn & Zukin, 2014, para. 1).

"Organizational psychologists call it 'layoff survivor syndrome,' the collection of emotional, psychological and physical reactions long documented in workers who remain on the

job. Being left behind, they say, can sometimes be as distressing as being let go” (Aleccia, 2008, para. 7). Those who were not affected by the reductions are left with the difficulty of accepting the loss of coworkers and friends. How do those left behind (termed “the walking wounded”) continue to function productively in a stressful environment made even more stressful by an increased workload, and the fear of losing their job in the future?

Schiro and Baker (2009) found that although organizations continue to find new labels such as “restructuring,” “resource alignment,” and “downsizing,” for changing their cost-reduction methods, these methodologies can have profound effects on employees’ health and well-being (p. 9). Terminating employees may help improve the company’s efficiency and productivity, but the end result is a negative impact on all employees. Many employees who face the possibility of a layoff, increased workload, early retirement, or even the unknown, experience an increase in their stress level. Any situation that results in stressful reactions has the potential to affect almost anyone regardless of the environment (workplace or personal life) in which the stressful situation occurs (p. 100).

Mayo Clinic staff (2018) stated “When your work life and personal life are out of balance, your stress level is likely to soar” (para. 1). However, the level of stress experienced by staff varies between occupations and industries. Stress experienced by healthcare professionals can be attributed to various causes, such as life-and-death situations, a traumatic event, heavy patient load, the inability to separate work life from personal life, inadequate staffing, and department budgets (LeClaire, 2016).

“Research suggests that high stress levels may impair the immune system and increase the risk of cardiovascular disease and cancer” (LeClaire, 2016, para. 2). Stress management isn’t a “one size fits all” process; therefore, it is important that staff experiment and identify stress-

relief techniques that work best for them, and that employers understand and acknowledge those factors that may cause or increase stress levels in their staff members. The healthcare sector has one of the most stressful working conditions and environments, often causing health professionals to experience negative consequences such as poor concentration, increased risk of cardiovascular disease, compromised immune system (LeClaire, 2016), as well as high rates of irritability, alcohol and drug overuse, and changes in sleeping patterns (Segal, Smith, Robinson & Segal, 2016).

Furthermore, while attrition is natural and sometimes healthy for the organization, it can cause increased stress on the remaining staff. In fact, “workforce change can be particularly detrimental in social service organizations where personal growth and recovery is cultivated through relationships between clients and the individuals who deliver services – namely counselors, case managers, and social-workers. In order for clinical service agencies to provide consistent and quality services, there must be some degree of staffing stability” (Knight, Becan, & Flynn, 2013, p. 1). Matin, Razai, and Emamgholizadeh (2014) stated,

One of the influential factors affecting workforce productivity is stress in organizations, which reduces the productivity level of workforce by a large amount. A whole of theories has been proposed about how this destructive factor affects the workforce performance and productivity, but as for its management, in recent years some books and articles are also being put in print, demonstrating that there is a relationship between stress management and an increase in performance level. (p. 3)

It should come as no surprise that the healthcare profession is among the occupations most affected by stress, and within the healthcare industry there are some healthcare professionals who are at a greater risk of succumbing to stressful conditions than others

(LeClaire, 2016). Healthcare workers may experience some or all of the symptoms of stress in varying degrees; however, a failure to detect and manage these problems at the earliest onset may result in increased stress levels. Conversely, the condition(s) may be easier to manage if the symptoms are detected earlier (Matin et al., 2014).

“Perhaps now more than ever before, stress poses a threat to the health of workers and, in turn, to the health of organizations” (Sauter et al., 1999, p. 1). Given the negative impact stress can have on an employee’s health and productivity, it’s easy to understand the criticality of assessing the impact of a reduction in staffing, and to determine if there are common coping mechanisms that can be shared across the organization.

### **Statement of the Problem**

The healthcare industry, like many other industries, has experienced the effects of budget cuts and reductions in workforce. While these changes may be necessary for an organization to remain viable, the end result is the remaining workforce experiences increased stress levels and feelings of uncertainty which, in turn, can have a negative impact on the quantity and quality of work produced by the remaining staff members (Massachusetts Institute of Technology, 2009).

What management may not understand is that constant or repeated reductions in staffing produce tangible feelings of loss, much like the feelings caused by a death in the family. However, there is no “bereavement leave” or mourning period which allows staff to adjust to the loss of co-workers. Unless these feelings are recognized and validated, staff may not even understand the emotions and feelings they are experiencing.

## **Purpose of the Study**

The purpose of this study was to determine what mechanisms Medical Technologists/Medical Technician (MTs/MLTs) and Respiratory Therapists (RTs) use for coping with the stress related to a staffing reduction in their place of employment.

## **Research Questions**

The following questions guided this research:

1. What strategies do Medical Technologists (MTs)/Medical Technicians (MLTs) and Respiratory Therapists (RT) use to cope with staffing reduction-related stress?
2. What feelings do staffing reductions evoke in MTs/MLTs and RTs?
3. When staffing reductions occur, do coping strategies used by MTs/MLTs and RTs differ based upon select variables, such as age range, profession, gender or longevity in the workplace?

## **Significance of the Study**

While eliminating all stress in the healthcare workforce is, no doubt, impossible, gauging the impact staffing reductions has on the remaining staff may help management to understand the impact such a change causes. Identifying these coping mechanisms may aid leadership in developing better approaches to help staff adjust to the changes, and make proactive decisions on how to provide support to staff who remain in the organization following a reduction in force.

## **Limitations**

This study had the following limitations:

1. The study could have been limited by the honesty of the medical technologists (MTs), medical laboratory technicians (MLTs), and respiratory therapists (RTs) responding to the survey questions.

2. The responses may reflect the current mood or attitude of the respondents.
3. The respondent's stress may not be directly related to a staffing reduction.
4. The sample population may be too small to be significantly relevant.

### **Delimitations**

This study had the following delimitations:

1. MTs and MLTs employed in the United States (US), who use Facebook and are members of the following Facebook groups:
  - a. Team Medical Lab Scientist (766)
  - b. American Medical Technologist – AMT (16916)
2. RTs employed in the United States (US), who use Facebook and are members of the following Facebook groups:
  - a. Team Respiratory Therapy (672)
  - b. Breath Sounds (1400)
3. To be included in the study, the respondents must have:
  - a. been terminated due to a staffing reduction or
  - b. been affected by a staffing reduction (for example, spouse/significant other, a co-worker who was a friend) in their place of employment within the last four years, and
  - c. experienced stress because of the above staffing reduction.

### **Assumptions**

The researcher made the following assumptions regarding this study:

1. The respondent responded honestly.
2. The respondent completed the survey only once.



## Operational Definitions

These terms are defined as follows for the purpose of this thesis.

*American Medical Technologists (AMT)*: a nonprofit certification agency and professional membership association representing over 60,000 individuals in allied health care.

(American Medical Technologists, 2016)

*American Psychology Association (APA)*: an organization comprised of doctoral-level psychologists whose purpose is to advance the creation, communication and application of psychological knowledge to benefit society and improve people's lives.

(American Psychology Association, 2013a)

*Convergent downsizing*: A workforce reduction strategy concerned with reducing the total number of individuals in a firm, typically through layoffs, redundancies, and natural attrition.

(Cameron, 1994)

*Job stress*: the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. Job stress can lead to poor health and even injury. (National Institute of Occupational Safety and Health, 1999)

*National Institute of Occupational Safety and Health (NIOSH)*: The federal agency responsible for conducting research and making recommendations for the prevention of work-related illness and injury. NIOSH is a part of the U.S. Department of Health and Human Services. (NIOSH, 2016)

*National Institutes of Health (NIH)*: The NIH, an agency of the United States Department of Health and Human Services, is the nation's medical research agency, supporting scientific studies that turn discovery into health. (The National Institutes of Health, 2013a)

*Psychological contract:* The psychological contract refers to the unwritten set of expectations of the employment relationship as distinct from the formal, codified employment contract. Taken together, the psychological contract and the employment contract define the employer-employee relationship. (HRZone, 2016)

*Stress management:* Any technique developed to help someone cope with or lessen the physical and emotional effects of everyday life pressure. (Dictionary.com, n.d.)

*Survivor guilt:* A deep sense of guilt, combined often with feelings of numbness and loss of interest in life, felt by those who have survived some catastrophe. (Dictionary.com, n.d.) (Gandolfi, 2008).

*Workforce reduction:* a corporate effort to lower costs through the termination of a relatively large number of employees. The need for a reduction in workforce can be driven by internal as well as external factors. (Business Dictionary.com, n.d.)

*Workplace stress:* the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the employee. (Workplace Stress Factsheet, 1995)

## CHAPTER 2

### LITERATURE REVIEW

#### **Workforce Reductions**

Technological advancements account for competitive pressure in the corporate world today. As organizations struggle to survive in the competitive market, they initiate changes that affect their corporate structures. Currently, many companies integrate advanced technology into their practices; thus, reducing or, in some cases, eliminating work performed by employees. Such a development motivates companies to reduce the size of their workforce in an ongoing effort to reduce their expenses while maximizing their incomes. The employees who remain after a reduction in workforce assume extra responsibilities, filling the gap left by their colleagues, thus leading to work-related stress. However, increased or excessive stress interferes with the worker's physical and emotional health and must be controlled appropriately to improve productivity (Gandolphi, 2013).

Workforce reduction is a management strategy used to initiate change in an organization, and can occur as a result of both internal and external factors. Gandolfi (2013) claims the tactic elicits financial, social, and organizational consequences that significantly affect the company. The author also describes workforce reduction as a downsizing strategy that focuses on a systematic decrease in employees to combat decreased profits (Gandolfi, 2013). Brauer and Laamanen (2014) added to Gandolfi's description by incorporating induced and normal attritions, layoffs, and hiring freezes as the typical techniques that managers use to facilitate workforce reductions. Most organizations experiencing tough economic conditions reduce the number of their employees to decrease the costs associated with maintaining human resources. "One of the primary reasons for employee downsizing is to reduce costs. Employee payroll

counts as a liability on the company balance sheet and, therefore, reduces the owners' equity” (Lewis, n.d. para. 2). However, these companies fail to consider their workers’ contribution to achieving the intended financial implications and, therefore, fail to reap the benefits of a reduced workforce. Downsizing a company’s workforce can affect the work behavior of the remaining employees to a significant extent (Waraich & Bhardwaj, 2012).

### **Impact on Staff Members Who Remain Behind**

After a staff reduction, fewer numbers of workers are left to handle the organization’s corporate functions. In these circumstances, management expects them to remain committed to their work and to increase productivity, despite the increased workload. In addition, the remaining employees adopt a perception that the company can hardly guarantee their job security, which the employees equate to an infringement of the psychological contract. Staff develop a negative attitude towards their work, but refrain from initiating complaints due to lack of job security and the company’s notion of fairness (Waraich & Bhardwaj, 2012). In most circumstances, survivors of workforce reduction view the layoff process as unfair leading to reduced confidence, morale, trust, and commitment to their duties (Kriechel & Pfann, 2013).

### **Lack of Motivation**

Motivation is a critical factor that inspires employees to improve their productivity and performance. Gandolfi (2013) argues that “...workforce downsizing produces far-reaching financial, organizational, and social consequences” (p. 68). In the case of labor force reduction (convergent downsizing), the downsizing process causes negative effects on surviving staff due to a lack of job security. These factors decrease employees’ cooperation and intrinsic motivation, as they concentrate on pleasing their supervisors at the expense of job satisfaction (Gandolfi, 2013). Staff have feelings of anger, distrust in management, low morale, and anxiety about their

future with the company, and seem hesitant to take risks (Grunberg, Anderson-Connolly, & Greenberg, 2000). In addition, staff feel their job will be in jeopardy if they complain about the extra work caused by their co-worker's departure (Swartz, 2018). When co-workers leave, supportive relationships are weakened [or eliminated], further compounding the effect on the staff that remain (Knight, Becan & Flynn, 2013).

### **Insecurity**

With layoffs, the survivors view their former colleagues as victims of an unfair management process. Waraich and Bhardwaj (2012) argue that the action decreases the survivors' commitment to their duties and loyalty to the company because of their negative attitude towards the reduction. This attitude can result in employee-turnover which leads to a negative financial impact on the company due to unplanned expenses associated with recruiting and training new workers. Modrek and Cullen (2013) found that layoffs and workforce reductions result in increased stress and job insecurity even in those employees left behind (referred to as "survivors"), which has health-related consequences. Modrek and Cullen (2013) further stated:

In addition to job insecurity, downsizing is likely to be accompanied by increased workload for the surviving workers. Studies of health care workers after downsizing suggest there is an association between downsizing and greater workload. Both greater workload and job insecurity may in turn cause work stress, which previous studies have shown to have detrimental effects on health. Both stress at work and job strain, a related construct where employees have high work demands and low control, have been found to be associated with coronary heart disease, metabolic syndrome, and elevated blood pressure. (p. 1)

Following an extensive study of the financial performance of firms after a downsizing endeavor, Gandolfi (2008) reported that “[t]he execution of downsizing is not limited to financial consequences. There is a significant body of literature showcasing that downsizing has profound human consequences on the workforce...” (p. 3). Gandolfi went on to state

[t]here are three categories of people directly affected by downsizing: survivors, victims, and executors. A downsizing survivor is an individual who remains with the firm, a victim is a person downsized out of a job involuntarily, while a downsizing executor is a person entrusted with the implementation of downsizing. (p. 5)

Citing the findings of previous researchers, Gandolfi (2008) postulated that a survivor may ultimately turn out to be a victim. For example:

- Schweiger, Ivancevich, and Power (1987) suggested that it is not the terminations per se that create hostility, anger, bitterness, and survivor guilt, but the manner in which the terminations were handled. In addition, survivors expressed feelings of anger and disgust that their peers were downsized and felt a sense of guilt that they themselves were not directly involved in the downsizing.
- Cameron, Freeman, and Mishra (1993) claimed that survivor guilt among professional level employees occurred when survivors worked overtime because their previous co-workers and friends no longer have a job. In addition, the authors reported a decline in loyalty as survivors perceive values of this nature are considered of little value to their employer.
- Allen compared survivor guilt to combat syndrome – the feelings that surface upon the death of a fellow soldier (Allen, R. K., 1996). Allen went on to state the following:

First, survivors are supposed to feel grateful that they are still employed and, in a way, they no doubt do feel some gratitude. However, researchers tell us that survivors do not feel completely good about surviving the cutback. For survivors, the disengagement of their work partners is like watching someone walk the so-called "last mile" to their execution. This seems to be how many of the organizational survivors feel. Survivors feel fortunate but scared about who will be next; trust has been replaced with distrust. Even the survivors who claim to be optimistic about the future may really be "whistling in the cemetery" to ease their own doubts; doubts which are fueled by the lack of communication concerning what they can expect from the changing organization. (p. 37)

- Littler, Dunford, Bramble, and Hede (1997) pointed out that survivor guilt arises when survivors recognize that their own performance was no better than that of the downsized victim and, therefore, warranted no differential treatment.

### **Increased Workload**

Brauer and Laamanen (2014) stated that the increased workload and performance pressure stimulate some of the remaining employees to demand an increase in salary; however, most staff members are not capable of assigning a monetary value to the additional responsibilities. With such knowledge, management awards them remuneration increments at relatively small rates that cannot cover the large workload (Brauer & Laamanen, 2014; Kriechel & Pfann, 2013).

## **Types of Survivors**

Based on the reaction and responses to layoffs, Neves (2014) discussed two types of surviving employees – destructive survivors and constructive survivors. While destructive survivors focus on the negative aspect of downsizing, constructive survivors focus on the positive side of layoffs. Destructive survivors perceive the layoff process as a threat to their job security, hence, their unwillingness to support management as it implements change in the organization (Waraich & Bhardwarj, 2012). Often, destructive survivors portray fear and pessimism towards the reduction process, a perception that negatively impacts their productivity. Constructive employees do not perceive the reduction process as a threat to their job and, therefore, support management by actively participating in training and teambuilding programs to gain knowledge on how to cope with the realignments (Neves, 2014).

## **Lack of Support and Resources**

Gandolfi (2008) previously reported that it is difficult to measure the impact layoffs have on remaining staff due to the lack of support and resources made available to survivors as compared to those available to layoff victims. In many cases, survivors lose confidence in the company and consider the company's future as unsure (Brockner, Wiesenfeld, Reed, Grover, & Martin, 1993). Although Armstrong-Stassen (1994) claimed the impact on the survivor largely depends upon the outlook of the survivor – “Survivors with high optimistic predispositions and a strong sense of mastery were likely to engage in control-oriented coping” (p. 597), she also stated the impact of the staffing reduction on the surviving employee is as significant as the impact on the victim.



## **Stress**

According to Michie (2002), stress entails a condition in which individuals lack sufficient resources to cope with pressures and demands of a particular event. Although stress affects people differently, the author concluded that it undermines achievement of the individual and corporate goals (Michie, 2002). Although a primary characteristic of stress is behavioral change, there are a variety of factors that can contribute this state, such as increased workload, conflicts at home, or insufficient emotional support system (Mani, Sritharan, & Gayatri, 2014).

The National Institutes of Health (NIH) (2013b) defines stress as the “brain's response to any demand” (p. 1). There are numerous factors that can cause a reaction

...including change. Changes can be positive or negative, as well as real or perceived.

They may be recurring, short-term, or long-term and may include things like commuting to and from school or work every day, traveling for a yearly vacation, or moving to another home. (p. 1)

### **Factors Contributing to Workplace Stress**

Occupational stress, an issue that cuts across every economic sector, is not a new issue. According to Babatunde (2013), various factors account for workplace stress that adversely affects employees' productivity.

#### **Excessive Workload**

Excessive workload is a primary stressor that prevents the affected individuals from performing at their best. When employees have high workloads, setting extremely short deadlines for tasks subjects them to increased pressure, which eventually overwhelms them. In addition, assigning an insufficient number of tasks causes stress because it creates the perception that staff lack the chance to fully exploit their skills (Babatunde, 2013).

## **Insufficient Resources**

The United States (U.S.) Department of Labor (n.d.) indicates that some of the most stressful situations in any workplace – life-and-death situations, inadequate staffing, or equipment issues – are those that occur in the hospital setting. “The nature of work is changing at whirlwind speed. Perhaps now more than ever before, job stress poses a threat to the health of workers and, in turn, to the health organizations” (National Institute of Occupational Health and Safety (NIOSH), 2014, p. 1). Although the terms stress and challenge may be used interchangeably, they are not equivalent in meaning (NIOSH, 1999). Northwestern Life, Princeton Research Associates, and the St. Paul Fire and Marine Insurance Company identified job stress as a common and costly problem in the American workforce. One-quarter of the Northwestern Life staff stated the number one stressor in their life is their job (Northwestern Life); three-fourths of employees at Princeton Research Associates believed workers experienced more on-the-job stress than the previous generation. Staff at the St. Paul Fire and Marine Insurance Company stated problems at work are more closely associated with health complaints than any other life stressor – even greater than financial or family problems. Fortunately, research on job stress has greatly expanded in recent years. But, in spite of this attention, confusion remains about the causes, effects, and prevention of job stress (NIOSH, 1999, p. 5).

## **Other Challenges**

Challenges facing Americans in today’s workplace can be attributed to outsourcing and alternative work practices such as job-sharing (Department of Health and Human Services [DHHS], 2004). Sharma (2015) also identified several causes of work-related stress including leadership style, unfavorable working conditions, and unclear job responsibilities. Citing

information from Lewin's 1939 study, Sharma (2015) stated what is striking about this is that not much has changed since Lewin's 1939 study (as cited in Sharma, 2015)

Though there are many reasons for the increased level of occupational stress among blue-collar employees, as they are more prone to stress because of their socioeconomic background and the workplace environment, the most important reason which is highlighted by many researchers is the leadership style prevailing in the organizations. (p. 54)

In most circumstances, employees want a chance to make independent decisions in their work environment, and the lack of such control subjects the employee to pressure leading to stress. Furthermore, unsupportive relationships with supervisors and colleagues lead to isolation that causes stress due to lack of interpersonal support. Poor relationships at the workplace can lead to aversive behavior characterized by bullying and harassment, causing management to adopt aggressive styles to control the unruly employees (Babatunde, 2013). Babatunde went on to say that

[w]here jobs are highly formalized, then employees in this setting may have little autonomy to productively execute work demands. The fact that such formalization creates rigid procedures and rules of engagement, there is a possibility that employees will experience high stress stemming from inappropriate locus of control needed for work demands. (2013, p. 77)

The fundamental nature of a job is another critical stressor that employees encounter frequently. There is a positive correlation between working conditions and workplace stress; however, there are other external factors that can increase or reduce workplace stress, such as, "heavy workload, infrequent rest breaks, long work hours and shiftwork; hectic and routine tasks

that have little inherent meaning, do not utilize workers' skills, and provide little sense of control" (NIOSH, 1999, p. 9).

### **Communication**

Inefficient communication between management or supervisors and employees contributes to the release of inappropriate performance feedback leaving the affected workers to make speculations, some of which could be inaccurate. In some circumstances, especially during hard economic times, many firms experience resource constraints. However, failing to provide employees with sufficient resources and the correct work equipment stresses the affected staff members (Babatunde, 2013).

Communication problems in the workplace can contribute to higher stress levels, causing some staff to feel that everything on their task list is urgent. These feelings create tension, a sense of being overworked, and often cause staff to rush through their work (Kinsey, 2019). "Good communication causes a sense of stability and predictability, but lack of communication or unhealthy communication introduces a sense of fear that causes tension, which is counterproductive to efficiency" (Kinsey, 2019, para. 2).

### **Impact on Work Performance**

Stress at work can be a serious problem for the organization as well as for its workers. According to the International Labor Organization (ILO), "stress is recognized worldwide as a major challenge to employee's health and the organization healthiness. Good management and good work in any organization can be the best practice to prevent stress from happening" (Alkubaisi, 2015, p. 99).

## **Decreased Commitment**

Alkubaisi's (2015) findings were further supported by Sharma (2015), who argued that stress affects employees' performance to a significant extent in that staff are often absent from work due to health issues resulting in decreased participation and productivity. Furthermore, stress has an adverse effect on morale which can result in decreased commitment to one's job and ultimately, low output. When a worker's productivity declines, the company's production level also declines, thus decreasing profitability (Mani, Sritharan, & Gayatei, 2014).

## **Reciprocity**

Brockner et al. (2004) stated that workers will respond in kind based upon their perception (reciprocity concept). In other words, if the worker feels maligned by the company, their feelings of discontent will be evident in their work performance.

Thus, the more that employees experience stress in the workplace, the more likely they may be to conclude the organization is not treating them well, by contributing to their experience of stress. As a result, people may reciprocate by exhibiting more negative attitudes... (Brockner et al., 2004, p. 77)

## **Impact on Overall Health**

Mani, Sritharan and Gayatei (2014) stated that prolonged stress overwhelms a person, leading to adverse psychological outcomes. According to Babatunde (2013), stress has the potential to impair an individual's physical and mental health, thus reducing their productivity and, if left untreated, persistent stress subjects the brain to emotional distress that often leads to depression. When a person experiences an emotional disturbance and exhaustion, they may make inappropriate decisions because the brain is not in a position to think critically. Stress can also contribute to behavioral problems as some people turn to drug and alcohol use in an effort to

divert their attention from their problems. When a person's body is continuously exposed to stress, the body remains in the fight-or-flight mode, which can result in serious health issues (American Psychological Association (APA), 2013b).

According to the Mayo Clinic, health-related symptoms can occur when stress is not managed appropriately:

Recognizing the symptoms of stress is crucial to stress management. Stress symptoms may be affecting your health, even though you might not realize it. You may think illness is to blame for that nagging headache, your frequent insomnia or your decreased productivity at work. But stress may actually be the culprit. (Mayo Clinic, 2016, para. 1)

When confronted with frightening situations, stress causes a chemical reaction in the body which can force one to respond by either facing the threat or retreating to a place of safety. Therefore, at times, stress can help one survive.

The nerve chemicals and hormones released during such stressful times, prepares the animal to face a threat or flee to safety. When you face a dangerous situation, your pulse quickens, you breathe faster, your muscles tense, your brain uses more oxygen and increases activity—all functions aimed at survival. In the short term, it can even boost your immune system. (NIH, n.d., p. 1)

Pietrangelo (2014) stated that stress can be caused by everyday events in both the professional and leisure environments.

If you're alive, you've got stress. Stress is a natural physical and mental reaction to both good and bad experiences that can be beneficial to your health and safety. Your body responds to stress by releasing hormones and increasing your heart and breathing rates.

Your brain gets more oxygen, giving you an edge in responding to a problem. In the short term, stress helps you cope with tough situations. (para. 1)

As you might expect, negative life events like divorce or the death of a loved one cause stress. So can physical illness. Traumatic stress, brought on by war, disaster, or a violent attack, can keep your body's stress levels elevated far longer than is necessary for survival. (para. 2)

While it may be impossible to alleviate all stressors or to avoid every stressful situation, if left untreated or unmanaged, stress poses serious health complications, not only in the workplace but also in one's personal life. Stress can cause fatigue, insomnia, or depression, all of which can result in poor work performance or the inability to lead a productive life (APA, 2013b, p. 1). "When stress starts interfering with your ability to live a normal life for an extended period, it becomes even more dangerous. The longer the stress lasts, the worse it is for both your mind and body. You might feel fatigued, unable to concentrate or irritable for no good reason, for example. But chronic stress causes wear and tear on your body, too" (APA, 2013b, p. 1).

### **Stress Management Strategies**

Actions must be taken to alleviate or reduce the stress experience for the affected person to function efficiently (Babatunde, 2013). Sridevi and Maheswar (2015) add that eradicating the stressor is a significant step to dealing with stress. For example, a stressed employee can ask the employer to limit the work pressure or can resign from his or her official duties. However, it is difficult to remove stressors completely. Therefore, one must learn how to manage his or her response to stress (Sridevi & Maheswar, 2015).

Stress management techniques can be categorized into organizational and individual strategies (Sridevi & Maheswar, 2015). With individual strategies, one has to highlight the cause

and its physiological and psychological effects as this information helps to identify an appropriate coping plan. Some examples of coping mechanisms include muscle relaxation, a technique that involves taking slow but deep breathes to relieve initiate consciousness though relieving muscle tension; cognitive restructuring, a process in which the person identifies thoughts that create stress and replaces them with rational contemplations that stimulate the adoption of constructive beliefs; or time management techniques, which eliminates stress that stems from strict deadlines and increased workload. Other individual strategies include mediation and biofeedback that incorporates the use of a machine to detect and manage stress (Sridevi & Maheswar, 2015).

Currently, organizations should implement comprehensive strategies to help their employees cope with occupational stress. The applied plans may focus on a specific problem or a group of issues to reduce the adverse effects of stress (Babatunde, 2013). Some of the corporate strategies for stress reduction include implementing flexible work schedules, consulting with the employees in the course of planning and instituting change, improving the work environment, and redesigning jobs to eradicate stressors (Sridevi & Maheswar, 2015).

Stress management has a direct impact on work performance and motivation, and while it's not possible to eliminate stress altogether, how one copes with stress determines the level of impact on the individual. What one person views as stress another person may view as stimulating. Baumgarten (2015) recommended stress management techniques such as writing down one's thoughts and feelings in a journal, or doing simple exercises at one's desk.

In their doctoral dissertation Sosin and Thomas (2014) recommended several techniques to address stress and burnout in the academic environment, including identifying the real problem, setting reasonable expectations and deadlines, and being in control of your own time.



While these recommendations are not all inclusive, they may prove to be beneficial in effectively managing one's stress levels.

Although it's unlikely one can completely eliminate workplace stress, Segal, Smith, Robinson, and Segal (2016) recommend techniques to reduce the impact of workplace stress, such as initiating positive relationships, regular exercise, and healthy eating and sleep habits.

### **Summary**

Currently, managers rely on workforce downsizing to decrease the cost of maintaining unreasonable size of the labor force, or to reduce organizational costs. If not implemented appropriately, using downsizing as a method of decreasing costs stresses the survivors forcing them to develop negative attitude toward the organization, and expose them to increased stress. Increased stress can adversely affect employees' health, morale, trust, and commitment to their duties, and decrease productivity and performance. There are several factors that can increase stress, such as leadership styles, insufficient resources, and increased workload. Stress management techniques can be used to help cope with stress, but it's unlikely one will be able to completely eliminate stress from their life. In addition, organizations can help their employees cope with occupational stress by implementing comprehensive strategies.

## CHAPTER 3

### RESEARCH DESIGN AND METHODOLOGY

The purpose of this study was to determine what mechanisms Medical Technologists / Medical Technician (MTs/MLTs) and Respiratory Therapists (RTs) use for coping with the stress related to a staffing reduction at their place of employment. In addition, the study identified what feelings are evoked in this population when staffing reductions occur and, lastly, what, if any, difference existed between these techniques based upon select demographic variables. The basic methodology was a quantitative study using a locally developed questionnaire with solicitation for participation distributed via Facebook.

#### **Research Design**

A non-experimental quantitative research method was used to answer the research questions. A research design of this type (non-experimental) is most often used "...when it is not practical, possible, feasible, or desirable to manipulate an independent variable as would be necessary in experimental research" (Cottrell & McKenzie, 2011, p. 194). A web-based survey was used to obtain data to determine what mechanisms MTs, MLTs, and RTs use for coping with the stress related to a staffing reduction at their place of employment.

Cottrell and McKenzie (2011) stated that "survey research involves the administration of a questionnaire to a sample or to an entire population of people in order to describe attitudes, opinions, beliefs, values, behaviors, or characteristics of the group being studied" (p. 195). Surveys provide the respondent with a means of providing anonymous feedback, and allows the researcher the ability to 1) collect data that is free from the researcher's bias and, 2) form conclusions based upon the results of the data analysis (Statistics Solutions, 2018; Sincero, 2012). "Recently, Web-based survey methods have become the method of choice for some

researchers due to the advantages they have over the pen and paper method, such as reduced response time, reduced cost of materials, ease of data collection...” (Cottrell & McKenzie, 2011, p. 201).

### **Population**

The population for this study consisted of 19,754 allied health professionals who were employed as MTs, MLTs, or RTs in US hospitals, home health agencies, research centers, stand-alone testing laboratories, and urgent care facilities, who used Facebook, and were members of the following Facebook group sites:

- Team Medical Lab Scientist
- American Medical Technologist – AMT
- Team Respiratory Therapy
- Breath Sounds

Labor statistics indicated there were 328,200 MTs/MLTs and 120,700 RTs employed in the US in 2014 (Bureau of Labor Statistics, 2015). These allied health populations were chosen due to the financial impact of the Medicare Part B changes and the likelihood that the implementation of these changes may have resulted in workforce reductions at their employment site.

Many experienced industry executives expect this to be the single most financially disruptive event to hit the clinical laboratory profession in more than 20 years. This will not only have a substantial negative financial impact on all labs—large and small—but two sectors of the clinical lab industry are considered to be so financially vulnerable they could cease to exist. (Michel, 2017, para. 3)

Ellison (2017) named recent changes made by the Centers for Medicare & Medicaid Services (CMS) as a contributing factor for 21 hospital closures across the country; however, reimbursement cuts in laboratory services and respiratory care services has had a significant

impact on the health professionals in the survey population (Pigg, 2017; Otts, 2014; Michel, 2017).

In the past few months, CMS implemented new reimbursement procedures, which cut the reimbursement rate for home respiratory care delivered in rural America and other less-densely populated areas by more than 50 percent. These drastic cuts are the result of CMS unfairly applying competitive bid rates in rural communities that Congress expressly excluded from the broader competitive bid program. Further, government reports show that many bidding providers were not compliant with the qualifications established by CMS, yet CMS awarded contracts to these unqualified bidders. As a result, the median award price was artificially lowered, causing dramatic price reductions, sometimes exceeding 50 percent, even though those bidders are not able to service markets they won. (Pigg, 2017, para. 2)

### **Survey Instrument Development**

Information from the literature was used to develop the questions included in the survey (Appendix A). The survey included the following demographic variables: (a) the participant's longevity with their current employer; (b) the profession in which the participant was licensed/registered; (c) the state in which the participant was employed; (d) the participant's age range, and; (e) the gender with which the participant identifies. In addition, the survey incorporated the use of multiple-choice types of responses, but only one modified Likert type response.

The researcher employed an online survey software that provided options for creating questions in multiple formats (e.g. drop-down menu, open-ended, multiple choice, etc.), prevented participants from bypassing required questions, and allowed use of extraction

questions (i.e. questions based upon the response to the previous question). Participant anonymity was maintained by avoiding questions that linked the responses to the participant, and by using survey software that did not track the participant's IP address.

In addition, the survey software allowed the researcher to extract data in an Excel format, track responses, and customize charts and data (QuestionPro.com, 2019).

### **Instrument Validity**

A pilot study was conducted to test the instrument before mass distribution to the population. "The purpose of conducting a pilot study is to examine the feasibility of an approach that is intended to be used in a larger scale study" (Leon, Davis, & Kraemer, 2011, p. 1). "Regardless of the method of data collection, all survey instruments should be pilot tested" (Brewer, 2009, p. 9). The pilot study participants and survey population should be similar (Gay et al., 2009).

The validity of the survey instrument was tested in the spring of 2019 with a pilot study. The questionnaire was provided via email to a group of MTs, MLTs, and RTs who were selected with the assistance of members of researcher's committee, and those selected were not members of the survey population on Facebook. Although this technique does not guarantee the success of the research study, it helped identify area(s) in which the project may fail or areas for improvement. The survey pilot participants were instructed not to complete the survey on Facebook if they were members of the Facebook group(s) in the survey population.

The pilot study participants were asked to record the amount of time it took them to complete the survey, make comments or suggestions, and to suggest additional questions or rewording of existing questions as they completed the survey. The pilot was completed in March 2019 and none of the participants provided suggestions for revisions.

## **Informed Consent**

An informed consent document accompanied the link to the survey instrument. Although the participant's consent for participation in the research was implied if the participant completed the survey instrument, the instrument contained explicit qualifying information the participant agreed to if they participated in the study.

## **Data Collection**

The data was collected using a survey as the collection instrument. The survey participants were solicited via Facebook between July 14 and July 31, 2019. Participants were provided with an advertisement on Facebook (Appendix B) detailing the purpose of the survey and a link to the survey site where they were presented with additional information about the purpose of the survey, instructions for completion, assurance of anonymity, timelines for completion, and informed consent.

The survey was made available as described in the steps below:

Step 1: An advertisement for the survey, which included an introduction of the researcher, the topic of the research study, and a link to the survey was posted on the following Facebook group sites (as part of Appendix B, Facebook Advertisement and Survey Link) for the allied health professionals included in this research study (MT/MLTs and RTs):

- Team Medical Lab Scientist
- American Medical Technologist – AMT
- Team Respiratory Therapy
- Breath Sounds

Step 2: Once the participants reached the survey site, they were presented with the informed consent information, which provided additional information about the purpose of the study, instructions for completion, assurance of anonymity, and timelines for completion.

Step 3: The participants were then presented with the Attestation (Appendix C).

Step 4: Data were collected during a two-week timeframe: July 14 – July 31, 2019. The group members and/or followers completed the questionnaire at their leisure during this timeframe.

Step 5: Reminder posts containing the survey link were made to the Facebook groups twice each week to thank those Facebook group members who had completed the questionnaire and to remind those that had not yet completed the questionnaire to please do so.

Step 6: After the closing date of the survey (July 31, 2019) the data from the submitted questionnaires was analyzed.

### **Data Analysis**

Results of the data analysis was reported for each research question. Descriptive statistics was used to evaluate the data and included frequency tables and charts for selected items listed in the survey and the resulting distributions were converted to percentages to facilitate reporting.

Chi square tests were used to determine if there were differences between the observed frequencies and the expected frequencies and whether the variables were related.

The data was analyzed using Excel 2016 and Minitab 17.

### **Research Questions**

1. What strategies do Medical Technologists (MT), Medical Technicians (MLT) and Respiratory Therapists (RT) use to cope with staffing reduction-related stress?
2. What feelings do staffing reductions evoke in MTs/MLTs and RTs?

3. When staffing reductions occur, do coping strategies used by MTs/MLTs and RTs differ based upon select variables, such as age range, profession, gender or longevity in the workplace?

Research Question 1 was demonstrated using charts developed in Excel 2016.

### **Summary**

This chapter contained information concerning the research design for this study, including the survey development, instrument validity, pilot study, and procedures for use of the instrument. The study population was reviewed; research questions reviewed and presented, and the data analysis procedures was summarized.

### **Background of the Researcher**

The researcher holds a Bachelor of Science degree in Allied Health from East Tennessee State University (ETSU) in Johnson City, Tennessee, and an Associate of Science degree in Medical Technology from City University in Bellevue, Washington. She has worked as medical laboratory professional for 30 years. After 19 years working in medical laboratory science, she returned to ETSU and is currently pursuing a Master of Science degree in Allied Health with concentrations in leadership and education.

During her career she worked in indirect patient care within hospital laboratories, education in the classroom, and procedural development in the FDA regulated field of blood collection and manufacturing industry.

The researcher believes that employee morale has direct impact on the success of an organization, and she also believes the findings in this study can increase industry leaders understanding of the impact a staffing reduction affects employees.



## CHAPTER 4

### DATA ANALYSIS

Since little research exists investigating the impact a staffing reduction has on staff who are left behind after the reduction occurs, this study was performed to determine what strategies MTs/MLTs and RTs use for coping with the stress when it is related to a staffing reduction in their place of employment. This study also determined what, if any, difference existed between these techniques based upon select demographic variables.

#### **Participants**

The total number of members for each of the Facebook groups used to solicit participants at the time the survey was performed was approximately 19,754 (membership fluctuates on social media sites). The data collection technique yielded 121 adult participants who met the criteria described in Appendix D (Attestation) and completed the survey. This represented a response rate of 0.6%, although 3.1% (615 participants) viewed the survey and 0.4% (76 participants) started but failed to complete the survey.

The demographic data collected from each participant is shown in Tables 1 – 4, and Figure 1. The demographic variables were gender, profession, age range, longevity, and states represented in the data. The study's dependent variable was stress management strategies.

#### **Descriptive Characteristics of Participants**

Of the 121 participants in the study:

- 84.3% of the participants were women (Table 1)
- 81.0% were MTs/MLTs (Table 2)
- Respondents from 40 states were represented in the data. Note: Alaska, Hawaii and Puerto Rico are not on the map in Figure 1; however, no responses were received from these locales.

Table 1.

*Gender of Participants Represented in the Data*

Gender	Frequency	Percent	Cumulative Percent
Male	19	15.7	15.7
Female	102	84.3	100.0
Other	0	0.0	100.0
Total	121	100.0	

Table 2.

*Profession of Participants Represented in the Data*

Profession	Frequency	Percent	Cumulative Percent
MT / MLT	98	81.0	81.0
RT	23	19.0	100.0
Total	121	100.0	

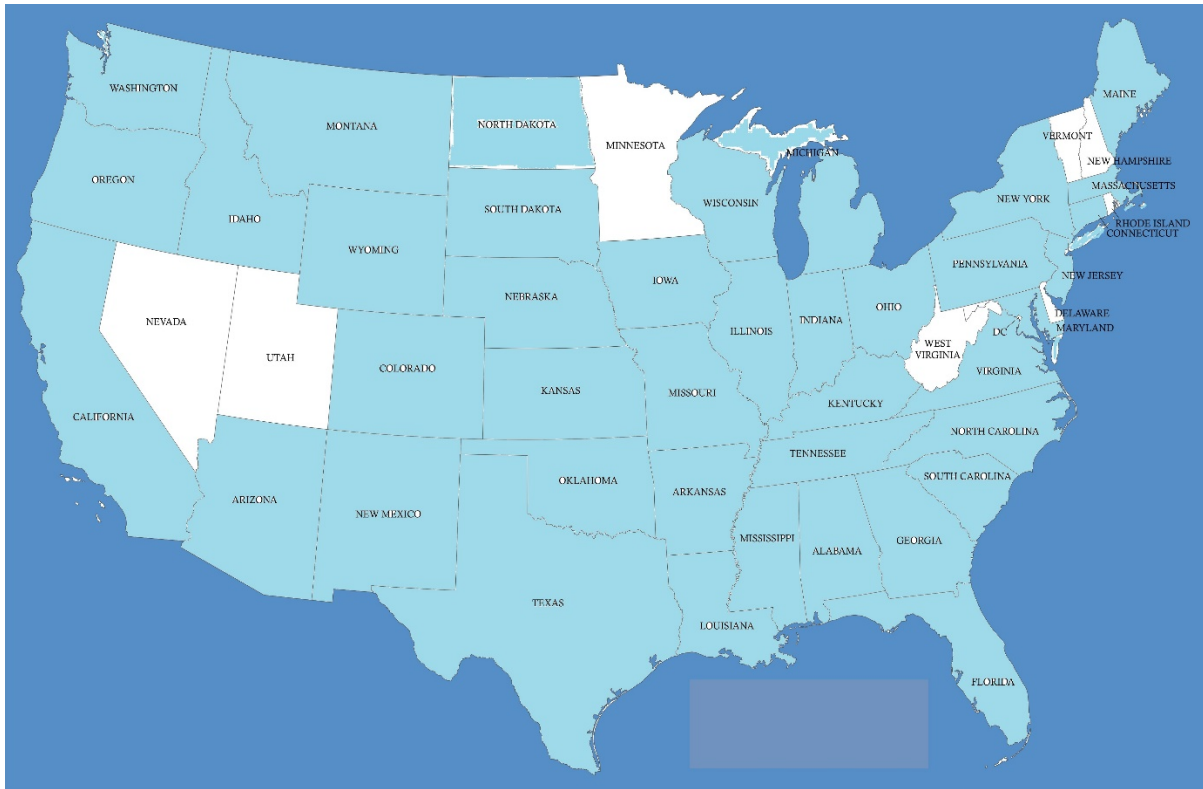


Figure 1. States Represented in the Data (light blue)

When evaluating the age ranges of the participants (Table 3), the data indicated there were more participants in this study in the Boomers range (55 - 73), followed by those in the Generation X range (39 – 54) and a small segment of the Millennial range (23 – 38) (Dimock, 2019).

Table 3.

*Age Group of Participants*

Age group	Frequency	Percent	Cumulative	Generation
55 or older	39	32%	32%	Boomers
45 - 54	31	26%	58%	Generation X

35 - 44	30	25%	83%	Millennial/Gen X
18 to 24	1	1%	100%	Millennial
Total	121	100%		

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When evaluating the longevity of the participants with their employer (Table 4), the data indicated there were more participants in this study whose longevity with their employer fell within 0 – 5 years.

Table 4.

*Longevity Range of Participants Represented in the Data*

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Longevity	Total #	Percent	Cumulative
0 to 5 years	55	45%	45%
6 to 10 years	18	15%	60%
22 to 29 years	16	13%	74%
11 to 15 years	15	12%	86%
30+ years	10	8%	94%
16 to 21 years	7	6%	100%
Total	121	100%	

---

**Description of the Data and Data Results**

The research questions stated:

1. What strategies do Medical Technologists (MT), Medical Technicians (MLT) and Respiratory Therapists (RT) use to cope with staffing reduction-related stress?

2. What feelings do staffing reductions evoke in MTs/MLTs and RTs?
3. When staffing reductions occur, do coping strategies used by MTs/MLTs and RTs differ based upon select variables, such as age range, profession, gender, or longevity in the workplace?

The research hypothesis stated the strategies used by MTs/MLTs and RTs to manage stress (related to reductions in the work force) will vary based upon select variables such as age range, profession, gender or longevity with their employer. The null hypothesis states the strategies will not vary based upon select variables such as age range, profession, gender or longevity with their employer.

When evaluating strategies used by MTs/MLTs to cope with stress related to a staffing reduction in the workplace, Table 5 indicated that three strategies accounted for approximately 50% (cumulative) of the strategies listed in the survey instrument:

- Try to find the humor in situations: 63 responses
- Prioritize tasks: 55 responses
- Accept uncertainty as a fact of life and keep on going: 53 responses

**Question 1: What Strategies Medical Technologists (MT), Medical Technicians (MLT) and Respiratory Therapists (RT) use to cope with staffing reduction-related stress?**

Table 5.

*Question 1a: Strategies used by MTs/MLTs*

---

<b>Strategies for MTs / MLTs</b>	<b>Total #</b>	<b>Percent</b>	<b>Cumulative</b>
Try to find the humor in situations.	63	18%	18%
Prioritize tasks.	55	15%	33%
Accept uncertainty as a fact of life and keep on going.	53	15%	48%

Connect with others at work.	46	13%	60%
Talk to an attentive listener.	43	12%	72%
Pray or seek spiritual guidance.	29	8%	81%
Take regular breaks from work throughout the day.	23	6%	87%
Exercise regularly.	21	6%	93%
Seek professional counseling (for example, the Employee Assistance Program).	14	4%	97%
Other	12	3%	100%
Total	359	100%	

---

Table 6 showed the same three categories used by MTs/MLTs also accounted for 45% (cumulative) of the strategies used by RTs to cope with stress related to a staffing reduction in the workplace.

- Prioritize tasks: 13 responses
- Try to find the humor in situations: 13 responses
- Accept uncertainty as a fact of life and keep on going: 12 responses

Table 6.

*Question 1b: Strategies used by RTs*

---

<b>Strategies for RTs</b>	<b>Total #</b>	<b>Percent</b>	<b>Cumulative</b>
Prioritize tasks.	13	15%	15%
Try to find the humor in situations.	13	15%	31%

Accept uncertainty as a fact of life and keep on going.	12	14%	45%
Connect with others at work.	9	11%	56%
Pray or seek spiritual guidance.	8	10%	65%
Talk to an attentive listener.	8	10%	75%
Exercise regularly.	7	8%	83%
Other	5	6%	89%
Take regular breaks from work throughout the day.	5	6%	95%
Seek professional counseling (for example, the Employee Assistance Program).	4	5%	100%
Total	84	100%	

---

Question 2 was incorporated into the survey to identify what feelings were evoked in MTs/MLTs and RTs when a staffing reduction occurs in the workplace. These feelings may occur whether the staff person loses their position, or someone significant to the staff person loses their position, or if the staff person did not lose their position due to a reduction in staff (a survivor).

Table 7 showed that job insecurity (78), fear of the unknown (76), anger (67), and a sense of loss (53) accounted for 70% of the cumulative total of the feelings listed in the survey instrument.

**Question 2: What feelings do staffing reductions evoke in MTs/MLTs and RTs?**

Table 7.

*Feelings Evoked in Participants Represented in the Data*

<b>Evoked Feelings</b>	<b>Total #</b>	<b>Percent</b>	<b>Cumulative</b>
Job insecurity	78	20%	20%
Fear of the unknown	76	19%	39%
Anger	67	17%	57%
Sense of loss	53	14%	70%
Betrayed	49	13%	83%
Hurt	38	10%	92%
Guilt	18	5%	97%
Overworked	2	1%	97%
Stress	2	1%	98%
Dread	1	0%	98%
Expected overtime	1	0%	98%
Frustrated and exhausted	1	0%	99%
Overwhelmed	1	0%	99%
Over-worked and under-valued; just a number	1	0%	99%
Shock and disbelief	1	0%	99%
Stress due to increased workload	1	0%	100%
Worried about patient care	1	0%	100%
<b>Total</b>	<b>391</b>	<b>100%</b>	



When analyzing the data based upon additional variables to formulate a response to the remaining research question, Question 3: When staffing reductions occur, do coping strategies used by MTs/MLTs and RTs differ based upon select variables, such as age range, profession, gender or longevity in the workplace? Note: Due to the limited number of responses (3) for the 18 – 24-year-old age range, this age range was eliminated from the analyses.

While Table 8 presents the data, it did not provide an answer to the question. Therefore, a chi-square association was generated using Minitab 17 (Table 9) to determine if the strategies used to manage stress vary by age range.

**Question 3: When staffing reductions occur, do coping strategies used by MTs/MLTs and RTs differ based upon select variables, such as age range, profession, gender, or longevity in the workplace?**

Question 3(a): Age Range

Table 8.

*Coping Strategies used by MTs/MLTs by Age Range*

<b>Strategy (MTs/MLTs)</b>	<b>25-34 y/o</b>	<b>35-44 y/o</b>	<b>45-54 y/o</b>	<b>55+ y/o</b>	<b>Total</b>	<b>Percent</b>	<b>Cumu- lative</b>
Exercise regularly.	5	4	7	4	20	6%	6%
Talk to an attentive listener.	7	10	13	13	43	12%	18%
Seek professional counseling (for example, the Employee Assistance Program).	2	4	3	4	13	4%	21%

Take regular breaks from work throughout the day.	7	6	4	6	23	6%	28%
Prioritize tasks.	11	12	12	20	55	15%	43%
Pray or seek spiritual guidance.	2	5	10	12	29	8%	51%
Try to find the humor in situations.	13	16	15	18	62	17%	69%
Connect with others at work.	9	9	11	17	46	13%	82%
Accept uncertainty as a fact of life and keep on going.	8	12	14	19	53	15%	97%
Other	2	2	3	5	12	3%	100%
Total	66	80	92	118	356	100%	100%

Minitab 17 was used to determine if any association existed between the strategies used by MTs/MLTs based upon the age ranges of the respondents. Table 9 below provides the results of this analysis, showing the observed count for each strategy, the expected count for the same, and the p-value, which is well above the alpha, which was set at <0.05.

Table 9.

*Chi-Square Test for Association: Strategies Used by MTs/MLTs by Age Range*

<b>Strategy</b>	<b>25-34 y/o</b>	<b>35-44 y/o</b>	<b>45-54 y/o</b>	<b>55+ y/o</b>	<b>All</b>
Exercise Regularly	5	4	7	4	20
	3.708	4.494	5.169	6.629	

Talk to an attentive listener.	7	10	13	13	43
	7.972	9.663	11.112	14.253	
Seek professional counseling (for example, the Employee Assistance Program).	2	4	3	4	13
	2.41	2.921	3.36	4.309	
Take regular breaks from work throughout the day.	7	6	4	6	23
	4.264	5.169	5.944	7.624	
Prioritize tasks.	11	12	12	20	55
	10.197	12.36	14.213	18.23	
Pray or seek spiritual guidance.	2	5	10	12	29
	5.376	6.517	7.494	9.612	
Try to find the humor in situations.	13	16	15	18	62
	11.494	13.933	16.022	20.551	
Connect with others at work.	9	9	11	17	46
	8.528	10.337	11.888	15.247	
Accept uncertainty as a fact of life and keep on going.	8	12	14	19	53
	9.826	11.91	13.697	17.567	
Other	2	2	3	5	12
	2.225	2.697	3.101	3.978	

All	66	80	92	118	356
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Cell Contents:

Count

Expected Count

Pearson Chi-Square = 12.936, DF = 27, P-Value = 0.990

Likelihood Ratio Chi-Square = 13.386, DF = 27, P-Value = 0.987

\*Note\* 11 cells with expected counts less than 5

Additional analysis of the chi-square test in Excel 2016 to evaluate each strategy independently by age range using the observed frequency and the expected frequency (see Table 10) and, again, no associations were identified.

Table 10.

*Excel Chi-Square Test for Association: Coping Strategies Used by MTs/MLTs by Age Range*

*Independently*

---

<b>Strategies Used by MTs/MLTs</b>	
Exercise regularly.	0.532
Talk to an attentive listener.	0.905
Seek professional counseling (for example, the Employee Assistance Program).	0.912
Take regular breaks from work throughout the day.	0.412
Prioritize tasks.	0.866
Pray or seek spiritual guidance.	0.272
Try to find the humor in situations.	0.829
Connect with others at work.	0.926

Accept uncertainty as a fact of life and keep on going.	0.927
Other	0.926

---

Using Excel 2016, the same data for Question 3 was generated and evaluated for RTs by age range. Table 11 presents the data, but a chi-square association performed in Minitab 17 (Table 12) demonstrating the observed and expected counts, and no association existed between the age ranges. A 95% confidence interval selected ( $\alpha=0.05$ ), and that the chi-square approximation was most likely invalid due to the number of cells with expected counts less than 5.

Question 3(b): When staffing reductions occur, do coping strategies used by RTs differ based upon age range?

Table 11.

*Coping Strategies Used by RTs by Age Range*

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<b>Strategy (RTs)</b>	<b>25-34 y/o</b>	<b>35-44 y/o</b>	<b>45-54 y/o</b>	<b>55+ y/o</b>	<b>Total</b>	<b>Percent</b>	<b>Cumu- lative</b>
Exercise regularly.	2	3	0	2	7	8%	8%
Talk to an attentive listener.	1	4	2	1	8	9%	18%
Seek professional counseling (for example, the Employee Assistance Program).	0	1	1	2	4	5%	22%
Take regular breaks	2	1	1	1	5	6%	28%

from work throughout  
the day.

Prioritize tasks.	2	4	2	5	13	15%	44%
Pray or seek spiritual guidance.	2	1	2	3	8	9%	53%
Try to find the humor in situations.	3	4	2	4	13	15%	68%
Connect with others at work.	2	2	1	4	9	11%	79%
Accept uncertainty as a fact of life and keep on going.	2	2	3	5	12	14%	93%
Other	1	1	2	2	6	7%	100%
	17	23	16	29	85	100%	

Table 12.

*Chi-Square-Test for Association: Strategies Used by RTs by Age Range*

<b>Strategy</b>	<b>25-34 y/o</b>	<b>35-44 y/o</b>	<b>45-54 y/o</b>	<b>55+ y/o</b>	<b>All</b>
Exercise Regularly	2	3	0	2	7
	1.4	1.894	1.318	2.388	
Talk to an attentive listener.	1	4	2	1	8
	1.6	2.165	1.506	2.729	

Seek professional counseling (for example, the Employee Assistance Program).	0 0.8	1 1.082	1 0.753	2 1.365	4
Take regular breaks from work throughout the day.	2 1.000	1 1.353	1 0.941	1 1.706	5
Prioritize tasks.	2 2.600	4 3.518	2 2.447	5 4.435	13
Pray or seek spiritual guidance.	2 1.600	1 2.165	2 1.506	3 2.729	8
Try to find the humor in situations.	3 2.600	4 3.518	2 2.447	4 4.435	13
Connect with others at work.	2 1.800	2 2.435	1 1.694	4 3.071	9
Accept uncertainty as a fact of life and keep on going.	2 2.4	2 3.247	3 2.259	5 4.094	12
Other	1 1.2	1 1.624	2 1.129	2 2.047	6
All	17	23	16	29	85

---

Cell Contents:  
Count

Expected Count  
 Pearson Ch-Square = 12.019, DF = 27  
 Likelihood Ratio Chi-Square = 13.995, DF = 27  
 \*WARNING\* 3 cells with expected counts less than 1  
 \*WARNING\* Chi-Square approximation probably invalid  
 \*Note\* 40 cells with expected counts less than 5

A separate chi-square test was performed in Excel 2016 to evaluate each strategy independently by age range using the observed frequency and the expected frequency (see Table 14) and, again, no associations were identified.

Table 13.

*Excel Chi-Square Test for Association: Strategies Used by RTs by Age Range Independently*

<b>Strategies Used by RTs</b>	<b>p-value</b>
Exercise regularly.	0.516
Talk to an attentive listener.	0.386
Seek professional counseling (for example, the Employee Assistance Program).	0.757
Take regular breaks from work throughout the day.	0.708
Prioritize tasks.	0.949
Pray or seek spiritual guidance.	0.822
Try to find the humor in situations.	0.969
Connect with others at work.	0.881
Accept uncertainty as a fact of life and keep on going.	0.804
Other	0.814



Using the same analysis tools, the data for Question 3 was generated and evaluated for MTs/MLTs and RTs by gender. As indicated earlier in this chapter, the percentage of male participants (approximately 16%) was significantly lower than the female participants (approximately 84%). However, the data for both genders were analyzed using the same methodologies above, but no associations were identified. Table 14 presents the overall comparison of the data, while Table 15 presents the results of the Chi-table for Association created in Minitab 17. The confidence interval was well below the established 95% ( $\alpha < 0.05$ ).

Question 3c: When staffing reductions occur, do coping strategies used by MTs/MLTs and RTs (combined) differ based upon gender?

Table 14.

*Coping Strategies Used by MTs/MLTs and RTs by Gender*

<b>Strategy</b>	<b>Males</b>	<b>Females</b>	<b>Total</b>	<b>Cumulative</b>
Exercise regularly.	5	22	27	6.1%
Talk to an attentive listener.	7	44	51	17.7%
Seek professional counseling (for example, the Employee Assistance Program).	3	14	17	21.5%
Take regular breaks from work throughout the day.	3	25	28	27.9%
Prioritize tasks.	11	57	68	43.3%
Pray or seek spiritual guidance.	6	31	37	51.7%

Try to find the humor in situations.	11	64	75	68.7%
Connect with others at work.	8	47	55	81.2%
Accept uncertainty as a fact of life and keep on going.	9	56	65	95.9%
Other	4	14	18	100.0%
<b>Total</b>	<b>67</b>	<b>374</b>	<b>441</b>	

Table 15.

*Chi-Square Test for Association: Strategies Used by Gender*

<b>Strategy</b>	<b>Males</b>	<b>Females</b>	<b>All</b>
Exercise Regularly	5	22	27
	4.100	22.900	
Talk to an attentive listener.	7	44	51
	7.750	43.250	
Seek professional counseling (for example, the Employee Assistance Program).	3	14	17
	2.580	14.420	
Take regular breaks from work throughout the day.	3	25	28
	4.25	23.75	
Prioritize tasks.	11	57	68
	10.330	57.670	
Pray or seek spiritual guidance.	6	31	37

	5.620	31.380	
Try to find the humor in situations.	11	64	75
	11.390	63.610	
Connect with others at work.	8	47	55
	8.360	46.640	
Accept uncertainty as a fact of life and keep on going.	9	56	65
	9.88	55.12	
Other	4.14	18	
	2.730	15.270	
All	67	374	441

---

Cell Contents:

Count

Expected Count

Pearson Chi-Square = 1.729, DF = 9, P-Value = 0.995

Likelihood Ratio Chi-Square = 1.688, DF = 9, P-Value = 0.995

\*Note\* 4 cells with expected counts less than 5

Question 3d: Lastly, when staffing reductions occur, do coping strategies used by MTs/MLTs and RTs (combined) differ based upon longevity with their employer?

Table 16.

*Coping Strategies Used by MTs/MLTs and RTs by Longevity*

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<b>Strategy</b>	<b>0-5 yrs</b>	<b>6-10 yrs</b>	<b>11- 15 yrs</b>	<b>16- 21 yrs</b>	<b>22- 29 yrs</b>	<b>30+ yrs</b>	<b>Total</b>	<b>Cumu- lative</b>
Exercise regularly.	14	6	4	1	1	1	27	6%

Talk to an attentive listener.	23	6	5	4	7	6	51	18%
Seek professional counseling (for example, the Employee Assistance Program).	6	1	1	2	4	3	17	22%
Take regular breaks from work throughout the day.	13	2	4	3	4	2	28	28%
Prioritize tasks.	31	8	10	5	7	7	68	43%
Pray or seek spiritual guidance.	10	5	6	2	9	5	37	52%
Try to find the humor in situations.	37	12	7	3	10	6	75	69%
Connect with others at work.	30	5	5	3	6	6	55	81%
Accept uncertainty as a fact of life and keep on going.	26	8	10	4	11	6	65	96%
Other	9	3	2	0	2	2	18	100%
Total	199	56	54	27	61	44	441	

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Minitab 17 was used to determine if any association existed between the strategies used by MTs/MLTs and RTs based upon the longevity of the respondents with their employer. Table 17 below provides the results of this analysis, showing the observed count for each strategy, and the expected count for the same. The Minitab analysis did not identify any associations between the professions and the longevity with their employer, with the p-value well above the 95% confidence (alpha=0.05).

Table 17.

*Chi-Square Test for Association: Strategies Used by MTs/MLTs Longevity*

<b>Strategy</b>	<b>0-5 yrs</b>	<b>6-10 yrs</b>	<b>11-15 yrs</b>	<b>16-21 yrs</b>	<b>22-29 yrs</b>	<b>30+ yrs</b>	<b>All</b>
Exercise Regularly	14	6	4	1	1	1	27
	12.184	3.429	3.306	1.653	3.735	2.694	
Talk to an attentive listener.	23	6	5	4	7	6	51
	23.014	6.476	6.245	3.122	7.054	5.088	
Seek professional counseling (for example, the Employee Assistance Program).	6	1	1	2	4	3	17
	7.671	2.159	2.082	1.041	2.351	1.696	
Take regular breaks from work throughout the day.	13	2	4	3	4	2	28
	12.365	3.556	3.429	1.714	3.873	2.790	
Prioritize tasks.	31	8	10	5	7	31	92

	30.685	8.635	8.327	4.163	9.406	6.785	
Pray or seek spiritual guidance.	10	5	6	2	9	5	37
	16.696	4.698	4.531	2.265	5.118	3.692	
Try to find the humor in situations.	37	12	7	3	10	6	75
	33.844	9.524	9.184	4.592	10.374	7.483	
Connect with others at work.	30	5	5	3	6	6	55
	29.331	8.254	7.959	3.980	8.991	6.485	
Accept uncertainty as a fact of life and keep on going.	26	8	10	4	11	6	65
	29.331	8.254	7.959	3.98	8.991	6.485	
Other	9	3	2	0	2	2	18
	8.122	2.286	2.204	1.102	2.49	1.796	
All	199	56	54	27	61	44	441

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Cell Contents:

Count

Expected Count

Pearson Chi-Square = 28.522, DF = 45, P-Value = 0.974

Likelihood Ratio Chi-Square = 30.093, DF = 45, P-Value = 0.957

\*Note\* 29 cells with expected counts less than 5

A chi-square test performed in Excel 2016 (Table 18), comparing the observed and expected frequencies for each strategy independently, also identified a p-value above the 95% confidence (alpha=0.05).

Table 18.

*Excel Chi-Square Test for Association: Strategies Used by MTs/MLTs and RTs by Longevity*

<b>Longevity</b>	<b>p-value</b>
Exercise regularly.	0.340
Talk to an attentive listener.	0.983
Seek professional counseling (for example, the Employee Assistance Program).	0.468
Take regular breaks from work throughout the day.	0.852
Prioritize tasks.	0.947
Pray or seek spiritual guidance.	0.250
Try to find the humor in situations.	0.804
Connect with others at work.	0.774
Accept uncertainty as a fact of life and keep on going.	0.851
Other	0.906

### **Results**

Excel 2016 and Minitab 17 was used to test the relationship between research hypothesis, which stated the strategies used by MTs/MLTs and RTs to manage stress (related to reductions in the work force) will vary based upon select variables such as age range, profession, gender or longevity with their employer. The null hypothesis stated the strategies will not vary based upon select variables such as age range, profession, gender or longevity with their employer.

In the chi-square for association test for Questions 3a, 3c, and 3d, the p-value was higher than the 95% confidence (alpha=0.05), indicating the relationship could not be rejected. A

determination could not be made for Question 3b using Minitab because the p-value could not be calculated due to the number of values less than 5; however, the chi-test for association generated in Excel 2016 indicated the p-value to be greater than the 95% confidence ( $\alpha < 0.05$ ).

### **Summary**

Descriptive and comparative analyses of data from the survey tool were presented in this chapter. Frequency distributions were used to demographically characterize the study's participants. The demographic profile included profession, gender, age range, and years of longevity with the employer. The majority of the participants were female (84.3%) and 81.0% were MTs/MLTs. The mean age was 38.9, and longevity with the employer was 14.7 years.

Frequency tables and charts for the research questions for strategies used to manage stress (as it relates to a reduction of staff in the workplace) were summarized, with a complete listing of each of these included in the appendices. Comparative analysis was performed for each aspect in Question 3 and the null hypothesis could not be discarded for any of the variables under evaluation. A chi-square approximation and p-value could not be calculated for Question 3b (gender) in Minitab due to the number of cells with expected counts less than 5; however, a chi-square test in Excel indicated the p-value to be greater than the 95% confidence ( $\alpha = 0.05$ ).



## CHAPTER 5

### SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter completes the study and includes the findings, conclusions, and recommendations for future research. Due to the limited amount of literature available on the impact staff reductions in the workplace had on the remaining staff, this study was undertaken in an effort to provide a better understanding and more insight into the feelings a reduction in the workforce caused, and the strategies staff used to manage this type of stress. However, more research is needed if we are to accomplish this goal.

The data were collected using the “Managing Stress in a Changing Environment” survey [Appendix A] as described in Chapter 3. The methodology of data collection was also explained in Chapter 3. Although the survey was distributed to two MT/MLT Facebook Groups and two Respiratory Therapy Facebook Groups, the resulting response rate was only 0.6%.

The sample for this study consisted of men and women in the U.S. who are credentialed in the allied health areas of Medical Technology and Respiratory Therapy. The response rate was far below the expectations of this researcher and, as described in Chapter 3, could be attributed to several factors: exclusionary criteria that would have precluded some members from participating (employed outside the U.S., accessing the survey from outside the U.S., never experienced a staff reduction in their workplace), or Facebook group members who do not access the site on a routine basis.

The total number of members for each of the Facebook groups used to solicit participants at the time the survey was performed was approximately 19,754 (membership fluctuates on social media sites). Six hundred and fifteen Facebook Group members (3.1%) actually viewed the survey, 0.4% (76 Facebook Group members) dropped out of the survey. Minors under the

age of 18 were also excluded from the study. In addition, while some may be “members” of the Facebook groups, they may not access the site on a routine basis and, therefore, may have missed the survey and any follow-up notifications.

The survey instrument was designed to determine if strategies used by MTs/MLTs and RTs to cope with stress, as it relates to a staff reduction in the workplace, varied based upon select criteria such as profession, age ranges, gender, or longevity with their employer. The instrument consisted mostly of multiple choice questions, and was developed following a review of similar studies in which variables similar to this study were being evaluated.

The overwhelming majority of participants were women (84.3%) in the MT/MLT profession, which is not surprising considering the Bureau of Labor Statistics reported that 73.8% of MTs/MLTs in the U.S. in 2019 were women. This site also reported that 66.8% of the number RTs employed in the U.S. in 2019 were women; however, the number of MTs/MLTs is approximately 33% higher than RTs (Bureau of Labor Statistics, 2020, Section 11).

The lack of participation in the survey was disappointing and, while the participation rate (or lack thereof) may attributed to the conditions listed in paragraph four in this section, it’s difficult to determine a true cause. There are some, such as myself, who do not like to participate in surveys; perhaps some questioned the legitimacy of the responses being anonymous; perhaps the experience of a reduction in the workplace elicited memories and emotions the participant did not want to re-live or delve into; or, it may also be related to the survey design itself – such as the use of multiple choice questions rather than Likert type questions. It is also possible the time of the year the research was conducted could have contributed to the low participation rate. The research was performed during the summer, which is a popular time for vacation.

Clement (2019, para. 3) stated "...Facebook is the most popular social network in the United States", surpassing both Snapchat and Twitter; however, Clement also reported the largest number of Facebook users to be Millennials (those within the age range of 25 – 34 years old). So, it is surprising that 38% of the research participants were in the Boomer generation (ages 55 – 75), when the younger generation make up the majority of Facebook users.

What I did find surprising was that the longevity of 45% of the participants was less than 5 years with their current employer. Given the number of participants in the Boomer generation, I expected to see a higher number of participants with longevity much higher than this range. Based upon the study cited in the above paragraph, approximately 30% Americans aged 55+ hold management positions. One could surmise this age group is sought out by other companies for their skill set, knowledge and years of experience. However, I would have expected that many within this age range have experienced some form of staffing reduction at least once in their career, even at the management level.

Although the response rate of participants in the RT profession (19%) was much lower than the that of MT/MLT profession (81%), both professions used the same top three strategies (try to find the humor in situations, prioritize tasks, and accept uncertainty as a fact of life), to deal with workforce reduction-related stress. My personal belief is that many of us who have been through this situation have used these strategies in some capacity. The largest percentage of feelings evoked in the participants when a workforce reduction occurred (job insecurity, fear of the unknown, anger, and sense of loss) contributed to approximately 70% of the options provided in the survey. However, there were three more feelings selected by the participants that increased the percentage to approximately 97%: betrayed, hurt, and guilt. It's not surprising to me that the above seven feelings are the ones selected by the participants since these are some

I've seen expressed in multiple surveys performed in my own workplace. Many of these feelings could be assigned to both a survivor and a victim of a staffing reduction. It's interesting that some of these feelings are similar to those in the 7 stages of grief.

Although none of the evaluation of strategies met the 95% confidence ( $\alpha=0.05$ ), when evaluating strategies at a macro-level, some commonalities were seen. For example, a common strategy used by all age groups in the MT/MLT profession was "try find the humor in situations." When evaluating strategies by gender, even though the number of male participants was low there were a couple of common strategies (prioritize tasks and try to find the humor...), while the strategies used by females showed some commonalities in both categories as the males, along with "accept uncertainty as a fact of life...". The strategies used by both professions based upon longevity yielded several common areas: "prioritize tasks", "try to find the humor...", and "accept uncertainty...".

### **Conclusions**

The limitations of the study were taken into consideration at the time the survey was developed; however, what was not taken into consideration was how limited the response rate would be in comparison to the potential population. While social media can be used as a means for distributing surveys and gathering data, the researcher is at the mercy of the members of the sites selected for inclusion in the study, the frequency of members visiting the site(s), the feelings members have after experiencing a staffing reduction in their workplace, and if the survey will cause unwanted feelings to resurface.

Although the response rate was much lower than anticipated, there were exclusionary criteria that would have precluded some members from participating, such as anyone employed outside the United States, anyone accessing the survey from outside the United States, those who

never experienced a reduction in staff at the workplace, or those who did not experience stress as a result of a reduction in staff in the workplace. Minors under the age of 18 were also excluded from the study. In addition, while some may be “members” of the Facebook groups, they may not access the site on a routine basis and, therefore, may have missed the survey and any follow-up notifications.

Based on the results of this study, I drew the following conclusions regarding the participants, the feelings evoked when a reduction occurs, and the coping strategies used by the participants to cope with staffing reduction-related stress:

1. Most of the participants were women because there are more women in the MT/MLT and RT professions than men (DataUSA, 2019).
2. More MTs/MLTs participated than RTs because data from the Bureau of Labor Statistics (2019) indicates the number of MT/MLT jobs are significantly higher than the number of RTs. Additionally, fewer RTs may not have participated because I do not work in the RT profession.
3. Fewer MTs/MLTs and RTs participated because they may not trust the integrity of information posted on Facebook, or they might have been concerned about my ability to ensure anonymity.
4. The top three strategies used to cope with staffing reduction-related stress (try to find the humor in situations, prioritize tasks, accept change as a fact of life) are the same in both professions.
5. The feelings evoked in the participants listed below are similar to the 7 stages of grief, and are feelings felt by those of us who have been through a staffing reduction.
  - a. Job insecurity

- b. Fear of the unknown
  - c. Anger
  - d. Sense of loss
  - e. Betrayed
  - f. Hurt
  - g. Guilt
6. The participation was less than I expected because many people use Facebook as a source of entertainment, to vent about personal issues or current news events, or communication with family and friends, as opposed to participating in educational research.

### **Recommendations for Further Study**

Talbot (2015) cited reasons for online surveys failing to produce the expected or intended results, one of which is the design of the survey itself. Talbot believes using Likert-type questions elicits better results than using multiple choice questions. It is possible that is true; however, it doesn't solve the issue of lack of participation. In my opinion, due to the sensitive nature of my topic, many organizations would not allow a researcher access to their staff as the population for a survey such as this.

Future research studies could add more to the literature on this topic. A similar study could be conducted that allows the researcher to reach out to credentialing agencies and request permission for access to their users as participants in the survey, and to request the agency's help in distributing the survey to the appropriate population.

This study was conducted with MTs/MLTs and RTs. I would suggest future studies to collect data from more than three allied health professions. Additional categories could include physical therapy assistants, radiographers, medical sonographers, etc.

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APPENDICES

Appendix A

Survey Instrument

Please select the appropriate response, or fill in the requested information:

- 1. Have you experienced a staffing reduction, or were you affected by a staffing reduction (for example, your spouse/significant other, a co-worker you were close to)?**

Yes

No (this ends the survey)

- 2. In what field are you licensed/registered?**

Medical Technology/Medical Laboratory Technology

Respiratory Therapy

- 3. Think about the staffing reduction referred to in Question 1:**

Are you a survivor?

Did you lose your job?

Did a significant other, a friend, or a co-worker you were close to lose their job?

- 4. Did the above staffing reduction cause you to experience stress?**

Yes

No (this ends the survey)

- 5. With regard to Question 1, how clearly were the reasons for the reduction explained to you by your manager?**

Not at all clear  
5

Somewhat clear  
4

Neutral  
3

Clearly  
2

Very clearly  
1

- 6. What feelings did the above staffing reduction evoke in you? (Check any/all that apply, or list others)**

Anger  
 Hurt  
 Sense of loss  
 Guilt  
 Job insecurity  
 Fear of the unknown  
 Betrayed  
 Others:

**7. With which gender do you most identify?**

Male

Female

Other

**8. What is your age group?**

18 to 24

25 to 34

35 to 44

45 to 54

55 or older

**9. How would you describe yourself?**

American Indian or Alaska Native

Asian

Black or African American

Hispanic, Latino, or of Spanish origin

Native Hawaiian or Other Pacific Islander

White

**10. In what US state are you currently or most recently (if retired) employed? *Drop down Box***

Alabama	Idaho	Minnesota	North Dakota	Utah
Alaska	Illinois	Mississippi	Ohio	Vermont
Arizona	Indiana	Missouri	Oklahoma	Virginia
Arkansas	Iowa	Montana	Oregon	Washington
California	Kansas	Nebraska	Pennsylvania	West Virginia

Colorado	Kentucky	Nevada	Puerto Rico	Wisconsin
Connecticut	Louisiana	New Hampshire	Rhode Island	Wyoming
Delaware	Maine	New Jersey	South Carolina	
Florida	Maryland	New Mexico	South Dakota	
Georgia	Massachusetts	New York	Tennessee	
Hawaii	Michigan	North Carolina	Texas	

**11. How long you have worked for your current employer, or, if retired/unemployed, how long you worked for your previous employer?**

0 to 5 years

6 to 10 years

11 to 15 years

16 to 21 years

22 to 29 years

30+ years

**Please select from the list below stress management strategies you most often use to manage or reduce stress. If there are additional strategies you use, please list them under Other.**

\_\_\_\_\_ Exercise regularly.

\_\_\_\_\_ Talk to an attentive listener.

\_\_\_\_\_ Seek professional counseling (for example, the Employee Assistance Program).

\_\_\_\_\_ Take regular breaks from work throughout the day.

\_\_\_\_\_ Prioritize tasks.

- \_\_\_\_\_ Pray or seek spiritual guidance.
- \_\_\_\_\_ Try to find the humor in situations.
- \_\_\_\_\_ Connect with others at work.
- \_\_\_\_\_ Accept uncertainty as a fact of life and keep on going.
- \_\_\_\_\_ Other:

Thank you for taking time to complete this survey and providing input.

## Appendix B

### Facebook Advertisement

Greetings!

My name is Lorri Burch-Hubbard, and I am completing my Master's in Allied Health Leadership at East Tennessee State University. As we all know, the healthcare industry has experienced its share of staffing reductions in the past few years, which often creates an atmosphere of uncertainty for those of us who work in the industry. For that reason, I selected the topic of stress management (as it relates to staffing reductions) for my thesis. I have created an anonymous survey and, as fellow healthcare workers, I would greatly appreciate your input.

This purpose of this study is to determine what mechanisms exist in the survey population for coping with the stress related to a staffing reduction in the respondents' place of employment. This study will also attempt to determine what, if any, difference existed between these techniques based upon age range, gender, profession, and longevity in the workplace

The survey is relatively simple and straightforward, should take no more than 10 minutes to complete, and all responses are anonymous. The deadline for completion is July 31, 2019.

**Survey link:** <https://managingstresslbh.questionpro.com>

## Appendix C

### Attestation

Checking the “I Agree” button below indicates you are confirming the following:

1. I have read the above information.
2. I am over the age of 18.
3. I agree to volunteer.
4. I am a Medical Technologist, Medical Technician, or Respiratory therapist employed/previously employed in the United States.
5. I am employed/was employed only in the United States.
6. I am completing the survey from within the United States.
7. I will complete the survey only once.

If the response to any of the above questions is "no", please select "I DO NOT AGREE" which will end the survey.

The survey should take no more than 10 minutes to complete, and the deadline for completion is

**July 31, 2019.**

Thank you in advance for your participation.

VITA

LORRI BURCH-HUBBARD

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