



The Dauntless Foe of Fire: Experiences of Bureau of Fire Protection Firefighters

Glory Jane Logrosa-Lagarto

Visayas State University Tolosa, Tanghas, Tolosa, Leyte, Philippines
Email: gloryjane.logrosa@vsu.edu.ph

Abstract- The Philippines continues to experience disastrous fires, often marking some of the worst fire incidents in history, putting properties, victims and firefighters conducting firefighting operations at risk. Thus, this phenomenological study aimed to explore the life experiences of the Bureau of Fire Protection Firefighters in performing firefighting operations in the Province of Leyte through the use of purposive convenience sampling method. This study sought to answer the three main thrusts: (1) experiences and challenges encountered by the informants in firefighting operations; (2) how they handled the problems encountered; and (3) their aspirations as a firefighter. Gathered data via individual interview and focus group discussion were analyzed by utilizing Colaizzi's approach. Eight themes had been developed as follows: (1) For experiences in firefighting operations of the informant as BFP firefighters: (a) *The Bliss in Public Service*, (b) *A Sworn Duty: No Place for Regrets*, (c) *A Misdeemed Judgment* and (d) *Torment as Public Servant*; (2) for handling the problems encountered in firefighting operations: (a) *An Obstacle to Battle*, and (b) *With Identifying comes Providing*; and (3) for aspirations to improve the firefighting operations are (a) *Aspire, Acquire and Beat the Fire*, and (b) *Excellence through Training*. Findings of this study proved that the BFP Firefighters are grateful and of no regrets to be a member of a noble bureau and of service to the Filipino people through fighting ravenous fires, but a feeling of melancholy haunts them when demise of victims is seen in the fire scene and it digs deeper into them when people land negative comments in the performance of firefighting operations without the knowledge of the process being followed and the situation being faced. The study had also uncovered that through confronting the challenges; open communication within the organization and the community; identifying and acquiring the needs of firefighters through purchasing sophisticated firefighting equipment; and providing a specialized and refresher training to be more acquainted on the current firefighting knowledge and techniques are vital in the performance of their duties as a dauntless foe of fire in order to deliver the utmost service to the Filipino people.

Keywords: Dauntless Foe of Fire, Bureau of Fire Protection Firefighters, Firefighting Operation, Province of Leyte, Philippines.

I. Introduction

The world is in chaos caused by different crises like the pandemic brought by Coronavirus Disease 2019, a war between the Communist Party of the Philippines-New People's Army and the government, fires that burn thousands of houses, dreams, and others. Everyone's life is at risk most especially the front liners and responders. They give their lives in exchange for our safety and security. Fighting the battles for protecting us and preserving peace is what they have sworn to bear until the end.

Firefighters are among the first responders who tackle various emergencies, particularly fires. A firefighter's primary responsibility is to respond to crises in a variety of locations to protect lives and conduct rescues while reducing property damage (Makinen, 2008). Firefighters receive training in "fire suppression, search and rescue, extrication, ventilation, salvage, overhaul, and emergency medical services" (Stowell, 2015).

The Philippines continues to face devastating fires, often resulting in some of the most severe fire incidents recorded in history. The Bureau of Fire Protection records 27,000 fire incidents in the first half of 2016; 14,197 in 2017; 14,316 in 2018 where 326 civilians and 4 BFP personnel died; and 16,408 in 2019 with 930 civilians and 58 personnel injured. With the current situations of fire incidents experienced by the people and the fire officers in charge in different localities, death and injuries are imminent, growing and visible as fire incidents increase.

The hazards associated with firefighting are profound, yet many of us seldom consider the conditions firefighters work in. The striking visuals and noises of fire trucks speeding toward a blaze often conceal the efforts they put in before, during, and after. The critical and perilous aspect of their profession can lead to the risks being minimized and preventive measures neglected.

As a criminologist and a member of the teaching force of Visayas State University Tolosa College of Criminal Justice Education teaching the subject Fire Technology and Arson Investigation, the researcher is moved and motivated to pursue this study to elaborately share and discuss to her students the importance of the creation of



the Bureau of Fire Protection, their functions, and the dangers they face during the conduct of firefighting operations as firefighters.

Furthermore, through this study, may people open up their doors of understanding that firefighting is fraught with occupational hazards. We should not underestimate them because of the so-called "effortless" nature of their work but rather honor or respect them on the risks they run, the danger it may pose to them, the courage in understanding that no fire is completely safe, and acknowledge that they might sacrifice their lives in order to save and protect others. Moreover, this study wants to reach everyone to be united and be cooperative with the programs of the Bureau of Fire Protection in preventing the occurrence of dangerous fires and for the safety of every living organism here on earth as they live by their motto "to protect and serve."

II. Literature Review

This study is anchored on Emotional Processing Theory and supported by Risk Compensation/Risk Homeostasis Theory and Team Development Theory.

2.1 Emotional Processing theory, also referred to as information processing theory, was introduced by Foa and Kozak in 1986. This theory has significantly influenced a vast amount of research, especially concerning posttraumatic stress disorder (PTSD). As per this theory, fear is triggered through associative networks that encompass details about the feared object, responses aimed at escape or avoidance, and the interpretation of the fear (such as perceived threat or danger).

Foa and Kozak (1986) suggested that two essential conditions must be met for emotional processing to take place: (1) stimulation of the fear structure, and (2) integration of new information that contradicts the harmful elements of the fear structure. Stimulation occurs when a person encounters a stimulus or exhibits responses that are represented in the fear structure and are therefore linked to the concept of danger. Overall, the stronger the similarity between the fear-inducing situation and the individual's dysfunctional fear structure, the more significant the activation.

It is believed that measurable physiological responses and personal accounts indicate the fear structure during the experience of fear. In particular, physiological responses are regarded as a sign that information is being processed: Fear response cannot take place without initial changes in physiological activity. In other words, within a fear structure that is characterized as a program for fleeing or avoiding, fear will trigger physiological responses regardless of whether or not one actually avoids the source of fear. The following reactions observed in patients who show improvement with treatment based on exposure are interpreted as signs of emotional processing: (1) activation of both psychophysiological responses and personal fear experiences during exposure, (2) a reduction in these responses throughout exposure sessions (within-sessions habituation), and (3) a decrease in initial responses to feared stimuli across different sessions (across-sessions habituation). The activation of the fear response may be hindered by factors such as cognitive avoidance or various distractions. Incomplete processing of emotions may happen if the exposure time is insufficient for habituation to take place. Lastly, a high initial level of arousal can obstruct the reduction of anxiety through habituation.

2.1.1 Nature of Firefighting as a High Risk Profession

Moreover, firefighting is recognized as one of the most hazardous, emotionally challenging, and high-stress job conditions that firefighters endure (Meina et al., 2020). Even though battling fires is an incredibly perilous occupation, Filipino firefighters are known for their remarkable bravery. In the absence of firefighting equipment, they have earned a reputation for rushing towards the flames while others seek safety. While fulfilling their responsibilities, firefighters may incur life-threatening injuries or, in the worst cases, lose their lives (Mayuga, 2018).

2.1.2 Constant Exposure to Danger and Psychological Strain

Firefighters are constantly aware of potential threats and often feel that the next call may test their physical and mental endurance. A comprehensive understanding of firefighters' health and their ability to confront hazards cannot be achieved without considering the psychological aspect (Clough & Guidotti, 1992). Similar to soldiers in active combat, firefighters are at risk of developing post-traumatic stress disorder, or PTSD. This psychological condition arises when an individual in a rescue or service role experiences a traumatic incident that leaves a lasting impact on their mind. It can result in flashbacks, disrupted sleep patterns, anxiety, and depression. Individuals with PTSD might become withdrawn and despondent, or they may exhibit anger, hostility, and destructive behavior (McQuerrey, 2018).

2.1.3 Exposure to Trauma and Responsibility to Others

A firefighter frequently enters situations that others avoid, thereby taking on a level of personal danger that would be intolerable in most other jobs. While this risk is managed as much as possible with firefighting gear



and protective equipment, the truth is that many things can go awry during any fire, and the progression of a significant fire is often unpredictable (Hyttén & Hasle, 1989). In addition to their own safety, the firefighter must also be mindful of the well-being of those endangered by the blaze and is sometimes exposed to suffering, injuries, and intense emotions. The task of rescuing victims is particularly demanding. The trauma of losing a victim, especially a child, is often cited in many stories as the most overwhelming experience a firefighter can face.

2.1.4 Positive Aspects and Emotional Rewards of Firefighting

The life of a firefighter is not merely a constant cycle of anxious waiting interrupted by high-stress emergencies, though. Firefighters appreciate many rewarding facets of their profession. The work is inherently engaging and offers a lot of excitement and variety during emergency calls. Few professions enjoy such strong support from the public or earn as much respect from the community. When responding to an alarm, a firefighter experiences both tension and stress, but also feelings of exhilaration and a strong sense of purpose. These positive elements of the job help offset the stressful moments and tend to shield the firefighter from the emotional toll of ongoing stress. When the alarm sounds, firefighters feel a certain level of immediate anxiety due to the unpredictable nature of the situation they are about to face. Some researchers suggest that the psychological strain felt at this moment may be as intense, if not more so, than any stress experienced during their response to the alarm. While on the way, the risks associated with navigating through traffic and the loud sirens add to this stress (Reischl et al., 1979).

2.1.5 Physiological and Operational Demands

The requirements of firefighting are irregular and unpredictable, marked by extended intervals of inactivity followed by intense bursts of effort. This inconsistent activity pattern is a crucial aspect of firefighting, as it contributes to stress, likely triggered by anxiety and reactions to psychogenic stress. The physiological challenges of firefighting encompass several factors, including the energy expenditure required for firefighting tasks, the heat stress from the fire, and the burden of wearing personal protective equipment. A comprehensive understanding of the physiological demands of firefighting must take into account the role of each factor and their variations over time. For instance, the implementation of personal protective equipment has created new physiological challenges for firefighters while simultaneously decreasing other demands by lowering exposure levels; advancements in technology are also leading to improvements in personal protective equipment over time (Louhevaara et al., 1986).

2.2 The Risk Compensation/Risk Homeostasis theory, introduced by Wilde in 1994, explains the reasons behind individual risk-taking behavior. According to this theory, individuals are more likely to engage in risky activities when they perceive themselves as safer. In essence, people modify their risk-taking tendencies based on the safety precautions that are implemented. Some researchers believe that the introduction of safety features leads individuals to neglect their cautious behaviors, as they feel sufficiently safeguarded by these measures.

This theory asserts that individuals are willing to accept a certain degree of subjectively assessed risk to their health and safety in exchange for the benefits that come with an activity (Wilde, 2014). Wilde describes this specific level of accepted risk as the "target level of risk." When individuals perceive the level of risk to be below their acceptable threshold, they tend to alter their behavior to enhance their exposure to that risk. On the other hand, if they view the risk as exceeding acceptable limits, they compensate by taking extra precautions. Consequently, people do not always react in the anticipated manner to conventional safety measures; instead, they adjust their responses to added rules, administrative controls, new procedures, and engineering technologies based on their own target level of risk.

The Risk Homeostasis Theory challenges the conventional perspective on health and safety, which holds that if initiatives fail to achieve their intended outcomes, we simply need to implement additional or enhanced controls or increase vigilance. According to this theory, in some cases, reducing controls and enhancing motivation may yield better results. When individuals perceive risk at a higher level and are allowed to make decisions to mitigate it to an acceptable degree (target risk), they will adjust their behavior accordingly.

2.2.1. Classification of Firefighting Hazards

The hazards encountered by firefighters can be conveniently classified into categories such as physical, thermal, ergonomic, chemical, and psychological risks. A firefighter's level of exposure during a fire varies depending on factors like what materials are burning, the characteristics of the fire's combustion, the type of structure involved, the presence of harmful chemicals, the strategies implemented to control the blaze, the existence of individuals needing rescue, and the specific role or position the firefighter occupies while combating the fire. The risks and levels of exposure faced by the first firefighter entering a burning building differ from those experienced by firefighters who arrive later or those who perform cleanup after the fire has been extinguished (Clough & Guidotti, 1992).



2.2.2. *Physical, Thermal and Health Risks*

Firefighters are at risk of suffering burns, inhaling smoke, and experiencing crush injuries from collapsing buildings. They can also undergo heat exhaustion, along with long-term work-related health issues such as asthma, chronic coughing, heart disease, cancer, and lung damage. Given the physically demanding nature of their role, firefighters can face various types of bodily harm while on duty. Some physical repercussions of the profession may not become apparent until many years later (McQuerrey, 2018). Firefighters are also susceptible to injuries caused by the heat or flames from burning materials, which fall into two categories. One type is the heat produced by a fire in a confined or semi-enclosed area, which can create dangerous fire situations (often referred to as "thermal phenomena") that pose significant risks to firefighters, such as backdraft and flashover. Additionally, even in the absence of hostile fire events, working in high-temperature settings presents a substantial threat to firefighters' health and safety due to the specific, and potentially serious, conditions it can cause (Scandella, 2015). Firefighters may encounter chemical hazards during incidents such as chemical spills on highways, train derailments, or industrial fires. Typical chemical-related risks for firefighters include insufficient fresh air to breathe, contact with chemicals while performing rescues, inhalation of chemical vapors, and high exposure to carbon monoxide, which can result in cancers of the colon, brain, bladder, kidney, Hodgkin's lymphoma, and chronic respiratory conditions (Gerber, n.d).

2.2.3. *Improper Use of Protective Equipment*

In the field of firefighting, researchers have proved that one of the reasons why firefighters are put in danger and incur injuries is because not all firefighters use their protective equipment properly. Researchers from TriData Corporation discovered that all firefighters need to have appropriate equipment, including self-contained breathing apparatuses. Firefighters who possess the necessary personal protective gear may not consistently adhere to guidelines regarding when to utilize this protection. The researchers identified that firefighters did not utilize their breathing apparatus as frequently or for as long as required, and overall, there were instances of carelessness and risk-taking among them (National Institute of Standards and Technology, 2016). Mark Jones, the Deputy Chief Fire Officer and Deputy Chief Executive for Essex County (UK) Fire and Rescue Services, compared the principles, policies, and practices of firefighting in the UK with those in the United States. In his investigation, Jones discovered that the primary causes of death among American firefighters are smoke inhalation, burns, crushing injuries, and associated trauma. Deaths from smoke inhalation could be avoided by using the provided breathing apparatuses.

2.2.4. *Limitations and Risks of PPE*

Personal protective equipment (PPE) is essential for ensuring the safety of firefighters. Nevertheless, PPE is cumbersome, heavy, and adds to the physical strain of firefighting tasks. Researchers at the University of Illinois at Urbana-Champaign discovered that firefighters often misjudge their capabilities to maneuver around obstacles while donning PPE. Such misjudgments could heighten the risk of injuries on the fire scene. Key findings indicate that firefighters overestimated their ability to step over, duck beneath, or squeeze past barriers while wearing PPE. Specifically, firefighters significantly overvalued their skill to duck under obstacles, making contact with barriers they believed would be clear. Incorrectly assessing movement capabilities while in personal protective equipment (PPE) can result in unintended contact with objects and poor decision-making regarding navigation on the fire ground. To mitigate these misjudgments, firefighter training should emphasize enhancing awareness of this issue and offer firefighters ample experience with difficult obstacles. By raising awareness of these mistakes and delivering navigation training that involves maneuvering over, under, and through obstacles while wearing PPE, we may ultimately reduce the incidence of slips, trips, and falls.

2.2.5. *Fatalities and Decision-Making Under Uncertainty*

According to Jiang et al. (2014), there are over 4,000 civilian and 100 firefighter fatalities per year due to fires in the United States alone. Being a firefighter is a risky occupation that calls for split-second decisions in high-stress situations, continual re-evaluation of changing circumstances, and close teamwork. Additionally, the surroundings are obscured by smoke, heat, and noise during a structural fire, which forces firefighters to act while having only a partial understanding of the circumstances. It was best summed up by one firefighter they spoke with: firefighting is making a lot of decisions on little information.

2.2.6. *Operational Challenges in the Fire Scene*

This is firmly backed by research carried out by Ishola et al. (2023), which highlighted the various difficulties firefighters encounter when they enter flaming buildings to save trapped individuals, evaluate the state of a home, and extinguish the fire as rapidly as they can. These obstacles consist of intense heat, smoke, harmful gases, explosions, and falling debris, all of which can impair their effectiveness and present safety hazards.

2.2.7. *Risk of Cancer from Hazardous Exposure*



In addition to the previously mentioned information, Lozano et al. (2023) found evidence that firefighters face an increased risk of developing skin cancer while engaged in firefighting activities because of the absorption of carcinogenic substances or harmful chemicals present in Polycyclic Aromatic Hydrocarbons (PAH), which are produced as byproducts when materials burn in a fire.

2.2.8. Cardiovascular Risks and Sudden Cardiac Death

In addition to the aforementioned skin cancer developed by firefighters, according to research done by Smith et al. (2016) entitled "Cardiovascular strain of firefighting and the risk of sudden cardiac events," statistics from the fire service indicate that, even with the many immediate traumatic dangers firefighters encounter (including burn injuries, smoke inhalation, and the risk of structural collapse), the primary cause of fatalities while on duty is related to cardiac events. Sudden cardiac death (SCD), which is a reasonably consistent and persistently high proportion of all firefighter duty-related fatalities, accounts for 45–50% of all such deaths. This is due to the possibility that a person who is prone to cardiovascular strain associated with firefighting could experience a rapid cardiac attack due to a variety of biological mechanisms. An increase in shear stress may cause fragile plaque rupture, leading to thrombus formation and coronary artery blockages. Hypercoagulability raises the likelihood of thrombotic incidents, which may exacerbate these issues. Alternatively, sudden dangers experienced while combating fires could increase the risk of lethal arrhythmias. The heart muscle can become dysfunctional on electrical, mechanical, or biochemical levels due to ischemia, which occurs when the demand for oxygen in the heart muscle surpasses its supply. Exposure to environmental factors may also heighten the risk of arrhythmias, especially in individuals with left ventricular hypertrophy (LVH), other forms of cardiomegaly, or ischemic conditions.

2.2.9. Overconfidence and False Sense of Security

Being an untrained or overconfident firefighter is one of the risks, in addition to the illnesses that firefighters may contract while performing firefighting operations brought on by ingested chemicals as stated by McGrail (2007) in his study. It claims that having complete PPE is a significant benefit for firefighters in terms of safety and injury avoidance. However, firefighters overestimate their protection level and underestimate their heat. This can easily lead to a false sense of security and result in a situation where firemen put themselves in danger by diving too far without applying water in advance to cool the area, or in some situations, without any hose line protection at all. PPE can sometimes mask the rapid development of high heat and potential flashover conditions.

2.2.10. Psychological Risks and PTSD Prevalence

Additionally, according to the Psarros et al. (2017) study, 18.6% of firefighters had post-traumatic stress disorder (PTSD). Insomnia, higher neuroticism and depression subscale scores on the SCL-90, and the presence of a fear of dying while battling a fire were revealed to be substantially related to a higher risk of developing PTSD by multiple logistic regression. Compared to firefighters who were employed seasonally, those who worked continuously had a 70% lower likelihood of developing PTSD. Insomnia, depressive symptoms, neuroticism, and perception of impending death during firefighting operations are all factors that can contribute to the onset of PTSD in firefighters.

2.3 The Team Development Model (TDM) proposed by Bruce Tuckman outlines the progression of team maturity and capability. As teams grow, they establish stronger relationships, and the leader adapts their leadership style accordingly. The process begins with a directive approach, transitions to coaching, then to participating, and ultimately reaches the delegation phase, at which point the leader is nearly hands-off. According to the 'team growth model,' achieving the final and most productive stage is unlikely unless issues related to processes and emotions are effectively resolved.

This theory outlines five developmental stages—forming, storming, norming, performing, and adjourning—that every team experiences, proposing that all teams undergo a relatively unproductive beginning phase before evolving into a self-sufficient unit. The forming stage involves a period of testing and orientation, during which members get to know one another and assess the advantages and disadvantages of remaining part of the group; the storming stage is characterized by interpersonal conflicts as members become more assertive and vie for different roles within the team. Team members work to define standards for acceptable behavior and performance; during the norming stage, the team begins to form a real sense of unity as roles are clarified and a consensus emerges around group goals and a shared or complementary mental model. The performing stage is when members have become adept at coordinating efficiently and resolving conflicts. In high-performing teams, members exhibit strong cooperation, a high level of trust in one another, a commitment to collective goals, and a sense of identification with the team. Finally, the adjourning stage occurs when the team is preparing to disband, causing members to shift their focus from tasks to relationships (McShane & Glinow, 2022).



Tuckman's initial research simply outlined how he noticed groups develop, whether or not they were aware of it. The true benefit lies in identifying a team's current stage in the developmental process and helping them progress to a stage that aligns with their collaborative efforts. In reality, teams frequently form and transform, and with each of these changes, they can shift to a different Tuckman Stage. A group might be content in the Norming or Performing stages, but introducing a new member might send them back to Storming, or if a team member misses meetings, it could cause the group to regress to Storming. Project leaders should be prepared for these situations and assist the team in returning to Performing as swiftly as possible.

Any group that collaborates over time will evolve and grow. Tuckman identified three factors that influence team performance: content, process, and feelings. In essence, content pertains to what the team accomplishes, process refers to how the team approaches its goals, and feelings concern the relationships among team members. Many teams focus almost entirely on content, neglecting process and feelings, which explains why teams that appear strong on paper may not perform well (Tuckman, 1965).

Any group that collaborates over time will evolve and grow. Tuckman identified three factors that influence team performance: content, process, and feelings. In essence, content pertains to what the team accomplishes, process refers to how the team approaches its goals, and feelings concern the relationships among team members. Many teams focus almost entirely on content, neglecting process and feelings, which explains why teams that appear strong on paper may not perform well (Tuckman, 1965).

2.3.1 Characteristics and Types of Effective Teams

A collection of people transforms into a cohesive team when leadership is embraced as a collaborative effort; responsibility transitions from being solely personal to encompassing both personal and shared aspects; the group establishes its unique mission or goal; problem-solving evolves into an ongoing practice rather than a sporadic task; success is assessed based on the collective results and products of the group; virtual teams (utilizing information technology) enable members in various locations to collaborate; self-managed teams consist of employees who have been given authority over their own work; and cross-functional teams are formed by experts from various fields.

2.3.2. The Bureau of Fire Protection as a Team Organization

The Bureau of Fire Protection as a team of elite force is created by virtue of Republic Act No. 6975 otherwise known as Department of the Interior and Local Government Act of 1990. The Bureau is mandated to enforce its own implementing law which is the Republic Act No. 9514 otherwise known as Fire Code of the Philippines of 2008. The mission of the bureau is to commit to prevent and suppress destructive fires; investigate its causes; enforce fire code and other related laws; respond to man-made and natural disasters and other emergencies.

2.3.3 Functions and Responsibilities of the Bureau of Fire Protection

The functions of the bureau is written under Chapter IV, Section 54-56 of Republic Act No. 6975 where the bureau shall: a.) be responsible for the prevention and suppression of all destructive fires on buildings, houses and other structures, forest, land transportation vehicles and equipment, ships or vessels docked at piers or wharves or anchored in major seaports, petroleum industry installations, plane crashes and other similar incidents; b.) be responsible for the enforcement of the Fire Code and other related laws; c.) shall have the power to investigate all causes of fires and if necessary, file the proper complaint with the city or provincial prosecutor who has jurisdiction over the case; d.) in the time of national emergency, all elements of the BFP shall upon direction of the President, assist the AFP in meeting the national emergency; and e.) shall establish at least one (1) fire station with adequate personnel, firefighting facilities and equipment in every provincial capital, city and municipality subject to standard rules and regulations as may be promulgated by the Department. The local government unit shall, however, provide the necessary land or site of the station.

2.3.4 Nature of the Firefighting Profession and Team Dynamics

The role and responsibilities of Bureau of Fire Protection Officers are unique, often regarded as hazardous and unclean, yet essential and commendable. Firefighters consistently garner public esteem and appreciation to an extent that few other jobs, especially within the public sector, can match. Their profession is filled with narratives of bravery, resilience against challenges, and collaboration (Guidotti & Clough, 1992).

With all of the foregoing literature and studies conducted by different respected researchers, it is strong undeniable and irrefutable evidence of the dangers faced by the Bureau of Fire Protection Officers as they perform their noble job as firefighters. These dangers entail physical, mental, and emotional aspects which cause their lives to be forfeited and be a memoir to the bureau and community they served. Helping them attain their mission and vision will not make us a lesser human but rather be of great help to them in serving the community in their utmost respect and sincerity.

III. Methodology



This section focuses on the methods employed for gathering data to further explain the research study.

Research Design

The approach taken in this study is qualitative, as stated by Denzin and Lincoln (2005), where researchers utilize various techniques to gain a comprehensive understanding of the subject matter. This process is also inherently imaginative and interpretive. The researcher does not merely exit the field with large amounts of empirical data and then straightforwardly compile their conclusions.

Research questions in qualitative research are typically open-ended; they focus on exploring what, how, or why. Their purpose is to provide insight into the perspectives or meanings held by individuals or to gather information about their experiences, needs, or considerations. Additionally, the research question should incorporate a description of the study population along with the research topics, which may include decision-making, coping strategies, experiences, perspectives, or support systems.

As noted by Crossman (2020), qualitative research is a form of social research that gathers and analyzes non-numerical data, aiming to derive meaning from this data to enhance our understanding of social life by examining specific populations or contexts.

Research Environment

The domineering quality of this research work comprises a comprehensive and rigorous study of the target area. The following municipalities were chosen as the research locale for the reason that they have the highest fire incidents from January 2015 to June 2020 among all forty-three (43) municipalities of the Province of Leyte with fire stations.

First in rank is Tacloban City. The center of Tacloban is located at about 11° 15' North and 125° 0' East on the island of Leyte. The elevation at these coordinates is roughly 14.6 meters, or 47.9 feet, above sea level. The city spans an area of 201.72 square kilometers, equivalent to 77.88 square miles. According to the 2015 Census, the population was 242,089, which accounted for 5.45% of the Eastern Visayas region's total population. Using these statistics, the population density is calculated to be 1,200 people per square kilometer, or 3,108 people per square mile. The Bureau of Fire Protection Region VIII known as the Tacloban City Fire station is also located in this city at J. Romualdez and P. Paterno Streets. The Tacloban City Fire station has two (2) sub stations, the San Jose and V&G Sub station and is composed of sixty-five (65) fire personnel with six (6) firetrucks being used in firefighting and in different programs of the said bureau.

The municipality of Palo is located along the coast in Leyte province. It can be found at roughly 11° 10' North and 124° 59' East on the island of Leyte. The elevation at these coordinates is about 8.9 meters, or 29.3 feet, above mean sea level. Palo covers a land area of 221.27 square kilometers, equivalent to 85.43 square miles, which makes up 3.50% of the total area of Leyte. According to the census conducted in 2015, its population was recorded at 70,052. This figure accounts for 4.06% of the total population of Leyte province and approximately 1.58% of the entire population in the Eastern Visayas region. From these statistics, the population density is calculated to be 317 people per square kilometer or 820 people per square mile. This municipality has its own Fire station located at Brgy. Guindapunan Palo, Leyte with twenty (20) fire officers and 2 firetrucks.

The City of Baybay is a coastal city classified as a component city in the province of Leyte. Situated at approximately 10° 41' North and 124° 48' East, the center of Baybay lies on the island of Leyte. The elevation at these coordinates is roughly 2.0 meters or 6.5 feet above mean sea level. Covering a land area of 459.34 square kilometers or 177.35 square miles, the city makes up 7.28% of the total land area of Leyte. According to the census conducted in 2015, the population was recorded at 109,432, accounting for 6.35% of the total population of Leyte province, or 2.46% of the entire population in the Eastern Visayas region. Based on these statistics, the population density is calculated to be 238 individuals per square kilometer or 617 individuals per square mile. It has its own fire station which is the Baybay City Fire station at Government Center, Zone 23 R. Magsaysay Avenue, Baybay City, Leyte with twenty (20) fire officers and three (3) firetrucks.

The Municipality of Dulag is located along the coast in Leyte province. Its municipal center is approximately positioned at 10° 57' North and 125° 2' East on the island of Leyte, with an elevation of around 5.2 meters, or 17.0 feet, above sea level at this location. Dulag covers a land area of 110.70 square kilometers, equivalent to 42.74 square miles, which accounts for 1.75% of the total area of Leyte. According to the 2015 Census, the population was recorded at 47,300 residents, making up 2.74% of Leyte's total population and 1.07% of the overall population in the Eastern Visayas region. From these statistics, the population density is calculated to be 427 individuals per square kilometer or 1,107 individuals per square mile. It has its own fire station located at Brgy. Buntay, Dulag, Leyte with eighteen (18) fire officers and 2 (two) fire trucks.

Research Informants

In the course of this study, the researcher chose ten (10) suitable and qualified BFP firefighters from the four (4) fire stations of the Province of Leyte to be the informants. The informants are Bureau of Fire Protection officers, must have been in the service for at least 5 years, must have experiences in firefighting operations for at least



five (5) times in a year, open to be asked with his or her experiences; have encountered dangers during firefighting operations, and is willing to cooperate in this study. Out of the 10 informants, 4 were interviewed individually and 6 were in a focus group discussion.

Research Instruments

In crafting this research, a transmittal letter was made and sent for approval to the Bureau of Fire Protection Regional Director Region VIII. Once approved, the researcher contacted the informants for information dissemination on the approved transmittal letter and were asked of their available time to conduct the interview and focus group discussion. The contents of the interview guide are the questions on the dangerous experiences during firefighting operations; how the BFP officers handled the dangers encountered; and the dangerous experiences of the BFP officers that affects their personal life.

An audio-tape recorder was utilized as a research instrument to record the conversation that the researcher and the informants discussed.

Research Procedures

The procedures used in the study were the data collection, data analysis, trustworthiness of research, and ethical consideration.

Data Collection

This study focused on the experiences of the Bureau of Fire Protection Officers on the peril amidst firefighting operations that will greatly help in understanding the work of firefighters and the dangers that they face every time they respond to an emergency especially in the occurrence of a dangerous fire. The chosen ten (10) informants from different fire stations in the Province of Leyte were given a consent form where they may agree or refuse to take part in the study. Once approval from the Regional Director and the informants were acquired, informants were given interview guides to be familiarized with the questions and were asked of their available time for the interview and focus group discussion. Informants who agreed to cooperate voluntarily were interviewed with the use of an interview guide and the audiotape recorder.

Data Analysis

The data was examined and compiled using Colaizzi's approach. This was the technique used to assist in extracting, arranging, and evaluating the narrative data set. This approach is thorough and trustworthy, classifying it as a qualitative method that ensures the truthfulness and reliability of its results. It allows researchers to uncover new themes and the relationships among them. It should be noted that all of the conversations between the informants and interviewers were captured on audiotape. The researcher translated the conversations from Waray-Waray dialect to English and then wrote them down. The techniques used in qualitative data analysis include coding, categorization, and determining the phenomenon's fundamental meaning.

Ethical Consideration

Informed consent was given to the ten (10) informants of this study. They were informed of the nature and purpose of the study. The decision of the informants whether to participate or not is at his discretion and will not result in any loss. The informants were allowed to refuse to take part in the study without affecting his job and the relationship with the researchers or of his co-informants as well as they have the right not to answer any question or to withdraw completely from the interview any time while the group discussion is commencing.

If the informants agreed to be part of the study, they will be asked to answer some questions about their personal information, the dangerous experiences in firefighting operations, how they have handled the dangers encountered, and what are their dangerous experiences that affect their personal life.

The data gathered were treated with utmost confidentiality and anonymity. The audio-tape recorder utilized was kept in a secure place to ensure the secrecy of the data.

The informants were given a summary of the results of the study to ensure the truthfulness of it. Cellular or telephone numbers were given to the informants for them to reach the researcher if concerns arise about their rights as research participants that have not been answered and for any other further questions about the study.

Trustworthiness of the Research

Qualitative researchers do not rely on tools with predefined measures of validity and reliability; instead, they ensure that the results of the study are credible, transferable, confirmable, and dependable.

Triangulation was employed in this study to demonstrate the validity of the research's findings. In triangulation, the same research inquiries are directed to different participants, and information is collected from various sources using multiple techniques to address those inquiries. During member checks, researchers solicit



feedback from participants regarding the information obtained in interviews and the researcher's interpretations of that data.

Transferability seeks to generalize the findings of a study and attempts to apply them to different situations and contexts. While researchers cannot definitively demonstrate that the results derived from data interpretations are transferable, they can indicate the likelihood of such transferability. In this study, the researcher's findings are relevant to other contexts, which may involve similar circumstances, populations, and phenomena.

Confirmability refers to the extent of objectivity present in the findings of a research study. The results derived by the researcher should reflect the responses of participants rather than any potential biases or personal agendas from the researcher. This requires ensuring that the researcher's biases do not influence the interpretation of participants' statements to align with a specific narrative. To demonstrate confirmability, the researcher has created an audit trail, which documents each step taken during data analysis and provides a rationale for the decisions made. This process ensures that the findings of the research accurately represent the responses given by the participants.

Dependability refers to the likelihood that other researchers could replicate the study and achieve similar results. In this research, an individual can reproduce this study if they have sufficient details from the research report to do so and arrive at the same conclusions as this study. A qualitative researcher may implement an inquiry audit to establish dependability, which involves having an external individual assess and scrutinize the research process and data analysis to confirm that the findings are consistent and can be replicated.

IV. Results and Discussions

In the analysis of data, the researcher sought meaning from all available data utilizing Colaizzi's approach. The data have been categorized by coding significant statements made by the informants. Out of these statements, core meanings have been formulated. It was then re-group according to similarities in descriptions and meanings and clustered into themes. Out of these, the researcher crafted the emergent themes. The researcher employed thematic analysis as the main approach for structuring and presenting the results of the study.

This study is anchored in Emotional Processing Theory and is supported by two theories namely, the Risk Compensation/Risk Homeostasis Theory, and Team Development Theory.

Emotional Processing theory suggests that fear is triggered through associative networks that contain details about the feared object, potential escape or avoidance actions related to it, and the interpretation of the fear (such as a perceived threat or danger). Fear becomes an issue when it is so intense that it disrupts functioning, or when it continues to exist without any obvious signs of danger.

The second theory is known as the Risk Compensation/Risk Homeostasis theory. According to this theory, individuals are likely to engage in riskier behavior when they perceive a heightened sense of security. Essentially, people modify their risk-taking actions based on the safety precautions that are implemented (Wilde, 1994). Some scholars suggest that the introduction of safety features may lead individuals to neglect their defensive skills, as they feel sufficiently safeguarded by these measures.

The third theory is known as the Team Development theory, which posits that as a team grows in maturity and skills, relationships are formed, leading the leader to adapt their leadership approach. Starting with a directing style, the leader transitions to coaching, then to participating, and ultimately to delegation, at which stage they are nearly hands-off. During this phase, the team may cultivate a prospective leader, allowing the former leader to move on to nurture a different team (Tuckman, 1965).

A. Positive Experiences.

With this sub-problem, the researcher created two (2) emergent themes from the clustered themes out of the formulated core meanings of the significant statements made by the informants.

1. The Bliss in Public Service: This theme depicts the satisfaction of the Bureau of Fire Protection Firefighters as they successfully beat ravenous fires, save lives and properties with the thanksgiving and commendations of the people whom they have sworn to save and protect that uplift the morale of the firefighters to do and give their very best in performing their duties.

This theme is based on Social Ecology theory, which is also referred to as human ecology theory or development in context, and it explores how the environments of individuals influence their identities. The social ecological perspective suggests that various factors in our surroundings combine to create the distinct situations that define who we are, emphasizing the notion that we are all interconnected and must address societal challenges in ways that take into account all components of a functioning system (Bookchin, 2007).

Firefighting is deemed crucial for the community. Research connecting professional esteem and social integration suggests that the quality of work and public recognition serve as important incentives for people to engage in community efforts (Wickrama et al., 1997). The role of a firefighter is typically held in high regard by society. The contributions of firefighters to the community are not only greatly valued and acknowledged but are



also clearly evident at the local level and among individual residents; their efforts are prominently showcased in the media, featured in charitable initiatives supporting various causes outside their profession, and they actively participate in educational and outreach activities promoting different social issues for both adults and children (Miller, 1995).

The favorable perception of the social standing and professional esteem linked to a firefighting career could be a primary factor in the decision to pursue this profession. Furthermore, involvement in the community may contribute greatly to the enhancement of wellbeing and general contentment of these individuals (Wickrama et al., 1997).

2. Sworn Duty: No Place for Regrets. This theme delineates the happiness of the Bureau of Fire Protection Firefighters in exercising their sworn duties without even a little glimpse of regrets but rather filled with gratefulness as a member of a noble bureau that serves the public. In addition, a noble work as a firefighter is a butter and bread of the families of our dauntless foe of fire as one of the reasons as to why they are forever thankful.

This theme is based on the Theory of Planned Behavior, which posits that intention serves as the most reliable predictor of behavior that has been planned. Intention, according to this theory, can be understood as an individual's readiness to engage in a certain behavior. This intention is influenced by three additional factors: the attitude towards executing the behavior, which reflects an assessment of anticipated outcomes; the subjective norms, which represent the belief about how significant others view a particular behavior; and the perceived behavioral control, which refers to an individual's perception of their capacity to carry out the behavior in question. This third element impacts not only the intention to act but also the action itself. To summarize in the developer's own terms, as one's attitude and subjective norms become more positive, and perceived control increases, the individual's intention to engage in the behavior discussed should become stronger (Ajzen, 1985).

According to Firefighter Nation Content Directors (2018), firefighters take an oath as a serious commitment to uphold the constitution. Although the specific wording may differ between jurisdictions, all oaths share a core message that each person will support the Constitution and will faithfully and impartially perform the responsibilities of their position while adhering to the laws of their state and city. Many fire departments elaborate on the oath to emphasize a commitment to prioritize others' safety and to adhere to departmental regulations. Prioritizing the public's welfare is ingrained in our training; it is our obligation to the community that we are sworn to protect. This portion of the oath is straightforward to align with our identity. We understand that injury or loss is a possibility we must face. However, this commitment is not without discernment; we strive each day to enhance the safety of our profession through training and protocols. We recognize that achieving favorable results relies on an equilibrium of training, expertise, and practical experience.

B. Negative Experiences. The researcher produced two themes from the lived negative experiences of the informants that gives light to the sub-problem of this study.

1. A Misdemeaned Judgment: Whatever a person does, may it be good or evil, someone will always leave a comment without knowing the fact. This theme portrays the sadness felt by the Bureau of Fire Protection Firefighters as being bombarded by people's negative comments in the performance of firefighting operations without the knowledge of the process being followed and the situation being faced by the informants.

This theme is based on the Theory of Reasoned Action (TRA), which posits that changes in behavior are ultimately driven by shifts in beliefs, and that individuals will engage in behavior if they believe they ought to do so (Fishbein and Ajzen, 1975). Generally, individuals tend to act in line with their intentions. Intention is shaped by two primary factors: a person's attitude toward the behavior, which reflects their evaluation of whether it is positive or negative; and a person's perception of societal pressures to engage in or refrain from the behavior. Both of these factors are molded by an underlying belief system.

Research on human behavior indicates that any action taken in a given situation is the outcome of a behavioral or decision-making process, rather than being based on random chance or merely responding directly to changes in the environment (i.e., a stimulus-response relationship). Studies related to community evacuations during disasters and fire evacuations in buildings have demonstrated that prior to taking action, individuals notice specific cues, assess the situation and the associated risks based on those cues, and then make a choice on how to proceed based on their assessments. Hence, each action executed is shaped by this underlying process. There are various elements that affect each stage of the process; specifically, elements that determine whether the person notices the cue (or not); elements that shape the individual's interpretation of the situation and the associated risk based on that cue; and elements that affect the decision-making regarding a course of action.

Research findings indicate that individuals with a hostile disposition tend to interpret information in a negative and harmful way, display both physiological and psychological arousal, and respond poorly to situational factors (Anderson and Lo, 2011).



2. Torment as Public Servant: This theme represents the melancholy felt by the Bureau of Fire Protection Firefighters as they witness the demise of the victims of the ravenous fire with no options left to save them, and the cries of the anxious people seeking for help and relief.

This theme is based on the emotional processing theory, which suggests that fear is triggered through associative networks containing information about the feared object, responses aimed at escaping or avoiding that object, and the interpretation of the fear (such as perceived threat or danger). Fear becomes an issue when it is so intense that it interferes with functioning, or when it continues without any clear signs of danger. According to the theory, chronic avoidance behaviors (like escaping, avoiding, or dissociating) often perpetuate these unhelpful mental frameworks, as individuals do not stay in a situation long enough for new learning to take place (Foa and Kozak, 1986).

Firefighting personnel may face negative thoughts, depression, and intrusive psychological responses, which can vary based on how long they are exposed to traumatic events. Additional factors influencing firefighting personnel include the scale of the fire being fought, the duration of their efforts to extinguish it, and witnessing incidents such as child abuse, murders, mass casualties, and the deaths of infants (Orner, 1995).

Hume (1966) observed that firefighting personnel often experience emotional empathy, which involves sharing the feelings and experiences of others. This observation was corroborated by Carlier et al. (2000), who found that police personnel dealing with victims of rape, abuse, murders, and other traumatic events are more likely to suffer from a greater incidence of PTSD. In their qualitative research, Fullerton et al. (1992) found that firefighters are more prone to psychological distress due to their identification with the victims of traumatic events.

Every person may face distress at some point in their life; however, firefighters and other emergency service workers frequently encounter high levels of distress due to critical incidents. A critical incident is any sudden or unforeseen occurrence that provokes a strong and negative emotional response, leading to an inability to function effectively at the scene or afterward (Lewis, 2003). While this broad definition suffices, it often overlooks how frequent unexpected and spontaneous calls are in the emergency services field and how many of these occurrences can be categorized as 'unpleasant'. For this reason, some definitions explicitly mention unusual events or calls that could surpass workers' ability to manage, or situations that put the worker at risk of personal harm, mission failure, or human error. These critical incidents may also arise from responding to various situations in a brief timeframe, events that receive significant media coverage, or interactions with deceased or critically injured individuals (Harris et al., 2002).

C. Handling Of Challenges. Out of the information gathered from the informants, the researcher coined two themes on how they handled their met challenges as firefighters that provide answers to this sub-problem.

1. An Obstacle to Battle: All problems become smaller if you don't judge them but confront them. This theme shows how the Bureau of Fire Protection Firefighters handles and battles different problems in the performance of their oath of office in order to bestow the very best service to the public.

This theme is based on the risk homeostasis theory, which suggests that each individual has a level of risk they consider acceptable. When the perceived risk in one area of a person's life shifts, they will adjust by either decreasing or increasing the risks they engage in, striving to maintain a balance of perceived risk (Wilde, 1994). Firefighting ranks among the most perilous careers, necessitating strenuous physical efforts in perilous environments (Coca et al., 2010). Firefighters in the United States are mandated to don turnout gear (i.e., protective jacket and trousers), along with additional personal protective equipment (PPE) such as a helmet, gloves, boots, and a self-contained breathing apparatus (SCBA) that meet the standards set by the National Fire Protection Association (NFPA) 1971 and 1981. These components of a firefighter's protective gear are engineered to shield against various hazards, including thermal dangers (such as exposure to flames and extreme heat), inhalation of toxic gases, and physical injuries (including cuts, collisions, punctures, slips, and falls).

2. With Identifying Comes Providing: The essential approach to managing issues and disputes in an organization is to maintain open lines of communication. This theme gives a picture of how the Bureau of Fire Protection Firefighters after knowing and identifying the problems within the organization provides what are needed to bequeath for the welfare of the public whom they serve.

This theme is based on the team development theory, which posits that as a team matures and enhances its capabilities, relationships begin to form, and the leader adapts their leadership style. This theory outlines four development stages—forming, storming, norming, and performing—that every team undergoes, indicating that all teams typically experience a less productive initial phase before evolving into a self-sufficient unit. The 'team growth model' further indicates that if the issues related to processes and emotions are not properly addressed, it is unlikely that the team will progress to the most effective final stage (Tuckman, 1965).

Hazardous operations are a significant priority for leaders in the jurisdiction. Fire officers routinely oversee hazardous operations by reducing life-threatening conditions for the workforce while enhancing advantages for



the community. Individuals assigned to hazardous operations should concentrate on the operational elements, and particular management strategies are crucial in reducing the likelihood of injury or fatality (Dillard and Layzell, 2014).

Fire officers oversee fire departments in a context of continual uncertainty during everyday operations, which contrasts with the stable environments seen in traditional businesses. As a result, effectively managing the expenses associated with dangerous operations demands a deliberate approach and budgetary expertise; thus, the financial aspects of safety can be expensive for both fire departments and the communities they support. For instance, in the United States, among the 19,000 municipal governments that report, public safety expenditures make up 40% to 80% of municipal budgets, raising the possibility that budget cuts will impact fire departments in some way (McFarland and Pagano, 2016; Walters, 2011).

Consequently, the expense of safety can either support or impede the services offered by the fire department. The level of financial resources allocated for hazardous operations dictates the quality of service a fire department can deliver. A vital aspect of fire department effectiveness lies in intangible assets, such as expertise and reputation (Fleming and Zhu, 2009). Implementing cost-effective strategies enables fire officers to control expenses, but this may result in injuries and fatalities, affecting both the financial and non-financial dimensions of community safety; thus, leadership strategies that address all facets of cost management for hazardous operations are essential.

The Bureau of Fire Protection is giving their best to provide the needs of the firefighters in order to serve the public at its best knowing that the said bureau lacks funding to provide everything and this is evident in the created law modernizing the said bureau.

D. Aspirations to Improve the Firefighting Operation. The researcher created two themes from the lived experiences of the informants on their aspirations as firefighters to improve firefighting operations.

1. Aspire, Acquire, and Beat the Fire: Great accomplishments start with great aspirations. This theme delineates the dreams and aspirations of the Bureau of Fire Protection Firefighters to acquire sophisticated firefighting equipment especially the modernized firetrucks to beat the dynamic classes of ravenous fire and to be of use to the next succeeding generation of firefighters.

This theme is based on the team development theory, which suggests that as a team grows in maturity and capability, relationships strengthen, leading to a shift in the leader's style of leadership. The responsibilities of fire officers are continuously evolving, necessitating commitment from all levels and moving beyond the conventional approach of applying uniform leadership strategies. In fact, fire officers work in a setting where all their actions are subject to public scrutiny (Fleming and Zhu, 2009).

In 2010, the Bureau of Fire Protection initiated its Modernization Program in line with the Comprehensive Fire Code of 2008. The program aims to enhance the government's firefighting capabilities by ensuring sufficient personnel and equipment to protect the public from the dangers of destructive fires. The total funding allocated for this program was 13.17 billion for the years 2011 to 2017.

According to R.A. 6975, the oversight of firefighting protection and rescue services was placed under the administrative guidance of the DILG. More specifically, these services fall under the jurisdiction of the DILG Undersecretary for Peace and Order. The same legislation assigned the newly established BFP the overarching responsibility for managing all operational elements related to the delivery of these services. These include operations for fire prevention, activities related to fire suppression and control, as well as emergency medical and rescue services.

Conversely, according to R.A. 7160, the relevant local government units (LGUs) are required to provide essential support for the provision of firefighting and rescue services. This support encompasses, among other things, the establishment of sites for fire stations and substations, as well as the provision of firefighting equipment and related infrastructure. Specifically, it is the responsibility of the LGUs to offer assistance for the upkeep of fire stations, the repair of fire trucks, the supply of auxiliary fire personnel, and similar financial and technical aid, as long as the revenue of the LGU permits.

With the laws that aid in the progress and development of the Bureau of Fire Protection the aspirations of the firefighters in acquiring the sophisticated firetrucks and personal protective equipment are made possible to effectively and efficiently beat the ravenous fire.

2. Excellence through Training: Excellence is a skill achieved through practice and routine. Our identity is shaped by our consistent actions. Therefore, excellence is not a singular achievement but rather a pattern of behavior. This theme depicts the desire of the Bureau of Fire Protection Firefighters to have a specialized and refresher training that will enable them to be acquainted with the new knowledge and techniques in firefighting operations to be more effective and efficient in the performance of their duties as a dauntless foe of fire.

This theme is rooted in the expectancy theory, which posits that employees engage in learning when they have confidence that the training will be beneficial. The process of learning and applying that knowledge will



improve when it is associated with specific outcomes. According to expectancy theory, an individual's actions are influenced by three components: expectancies, instrumentality, and valence (Vroom, 1964).

Expectancies serve as a connection between the attempt to engage in a behavior and achieving success in that behavior. Instrumentality refers to the belief that executing a specific action correlates with a certain result, such as improved job performance. Valence denotes the significance that an individual attributes to an outcome (i.e., the importance of performing well in their job).

Excellence is associated with exceeding the highest performance standards established by an organization to achieve effectiveness, utilizing three approaches: organization development (OD), socio-technical systems, and human relations. Dervisiotis (2005) states that fostering human organizations for sustainable excellence necessitates significant changes in how an organization's nature is examined to comprehend their behaviors.

Enhancing human resources, skills, and capabilities is an ongoing endeavor that ranks as the top priority for all progressive and high-performing organizations. Training serves as a tool utilized to elevate the competencies, potential, and capabilities of individuals, groups, and the organization collectively. This approach has led to significant business growth and advantages in both private and public sector entities.

As noted by Wieselquist et al. (1999), when individuals invest effort, they are more likely to succeed in various activities. Ben Hamida, Mineka (1998), also mentioned that putting in effort entails working diligently to strive for a specific goal. In contrast to innate ability, anyone can put in effort if they choose to do so. Individuals often consider effort as a quality they would like to see in others.

Currently, the Bureau of Fire Protection through the National Fire Training Institute has the following training offered to its personnel such as Master in Crisis and Disaster Risk Reduction Management for Superintendent; Fire Arson Investigation and Inspection Course; Fire Officers Advance Course for Fire Senior Inspector; Fire Officers Basic Course for Fire Inspector; Fire Officers Candidate Course for Senior Fire Officer 4; Fire Protection Supervisory Course for Fire Officer 3; and Fire Basic Recruit Course for Newly Recruit Fire Officer 1.

V. Conclusion

This study probes the lived experiences of the Bureau of Fire Protection Firefighters in Tacloban Fire Station, Palo Fire Station, Dulag Fire Station, and Baybay Fire Station.

Specifically, this study sought to answer the following:

1. What are the experiences of the informants in firefighting operations?
2. How do the informants handle the problems encountered in their firefighting operations?
3. What are the aspirations of the informants to improve the firefighting operations?

This study utilized a qualitative research method via phenomenological approach. Furthermore, this study was conducted in the four selected fire stations namely: Tacloban fire station, Palo fire station, Dulag fire station, and Baybay fire station which were ranked Top 1 to 4 as fire stations with many fire incidents responded from 2015-2020. This study involved ten (10) informants. Four (4) were individually interviewed while six were included in the focused group interview. The researcher conducted interviews in local dialect through the help of an audio recorder to properly document the responses of the informants. Before its conduct, informants were provided with prior informed consent to ensure that the informants were properly aware and exact about their participation in this study. After which, a transcript of interviews was produced and translated to English language for general readability. Afterwards, gathered data were subjected to thematic analysis and the researcher was able to craft nine (9) themes that best represent the lived experiences of the informants.

VI. Findings

Out of the gathered data, the researcher was able to formulate (8) eight themes that best represent the experiences of the informants, both positive and negative, their ways of handling the challenges encountered and the aspirations they have to improve their firefighting operations as Bureau of Fire Protection Firefighters.

The emergent themes are as follows:

- For the positive experiences, there are two (2) themes, namely: *The Bliss in Public Service, and Sworn Duty: No Place for Regrets.*
- For the negative experiences, there are two (2) themes namely: *A Mismeasured Judgment and Torment as Public Servant.*
- For handling of challenges there are also two (2) themes namely: *An Obstacle to Battle, and With Identifying comes Providing.*
- Lastly, for their aspirations there are two (2) themes namely: *Aspire, Acquire and Beat the Fire, and Excellence through Training.*



VII. Implication

As a result of this study, the researcher developed pertinent suggestions and recommendations that are applicable to existing institutional practices and for future research.

VIII. Implications for Practice

These are the possible recommendations for practical applicability:

The Bureau of Fire Protection Firefighters must do their best in enforcing and informing the community on the different programs and laws implemented by the bureau. Thus, fire awareness will be instilled on the minds of the public they are serving in order to prevent the occurrence of ravenous fire that kills and injures numerous victims, destroys millions of properties and ends a soaring dream. Moreover, they must maintain and check their firetrucks every day to lessen if not avoid the occurrence of malfunction during firefighting operations and strive harder to get training that will fuel their knowledge in firefighting operations, first aid, search and rescue and other necessary training to save lives and properties.

The Bureau of Fire Protection must formulate and craft programs for the community to be more involved in fire safety awareness and prevention to prevent the occurrence of fire and obstruction and misunderstanding of the people in the performance of the duty of the BFP firefighter. In addition, the said bureau should create a program of instructions for additional training needed by the firefighters to be used in firefighting operations. Furthermore, the bureau must collaborate with other agencies that will help them cater the needs of additional standard firetrucks and firefighting equipment to ensure the best quality of service that can be provided to their constituents and for the safety of the firefighters.

The Different Fire Volunteers must abide and follow the training, programs and safety protocols conducted by the Bureau of Fire Protection to aid in extinguishing any types of fire. In addition, they should always be in contact with the Bureau of Fire Protection to be informed and aid in firefighting operations as the needs arises and help the said bureau to inform the public on different ways in preventing the occurrence of dangerous fires.

The Department of Interior and Local Government (DILG) as the umbrella department of the tri-bureaus to include the Bureau of Fire Protection and as the subject of this study, should request additional fund for the said bureau in order to procure high quality of firetrucks, personal protective equipment and sub-fire stations for an effective and efficient firefighting operation and for the safety of the firefighters. The department must also mandate the high-ranking officials of the said bureau to conduct specialized training with the use of modernized firetrucks and refresher training for the senior officers to be more equipped with knowledge that will greatly help them especially in fire caused by synthetic materials.

For the Community, they must engage actively in programs formulated by the Bureau of Fire Protection to protect them from ravenous fire and for them to be aware of the dos and don'ts to prevent the occurrence of fire and to understand and appreciate the nature of the job of the firefighters. They should also within their jurisdiction, make an organization that will help the Bureau of Fire Protection in disseminating or cascading information pertaining to fire awareness and help the firefighters in cases of occurrence of fires in their respective area.

The Local Government Units (LGU) should formulate policies that would allocate funding to help Municipal Fire Stations in the maintenance of the firetrucks, purchase of firefighting equipment and additional land for sub stations if the area of the municipality warrants. Further, the LGU should conduct seminars and orientations on fire awareness and consequences of putting up fire intentionally in collaboration with the Bureau of Fire Protection.

The Brgy. Officials must inform the community to be active and be participative in fire awareness programs and follow the activities and plans formulated by the Bureau of Fire Protection for the betterment of the public being served. In addition, they should lead an organization that will help the Bureau of Fire Protection in cascading information on the programs and training conducted that will help them as first responder in cases of fire broke while waiting for the firefighters to arrive at the fire scene.

The Researcher must be actively participative on all programs and activities of the Bureau of Fire Protection and help disseminate information regarding the nature of the job of the firefighters. Moreover, the researcher must give out copies of the study to the respective stations where informants of this study designated and most



especially to the BFP Regional Director to know the challenges experienced by his subordinates, problems being encountered, and their aspirations to be used as guide on programs to be implemented to be more effective and efficient in their job while being at peace and safe while performing their duties as firefighters.

IX. Data Availability

Data Availability Statement:

Underlying Data

figshare: The Dauntless Foe of Fire: Experiences of Bureau of Fire Protection Firefighters

Interview Guide: <https://doi.org/10.6084/m9.figshare.31967442>

Data are available under the terms of the Creative Commons Attribution 4.0 International license (CC-BY 4.0).

Grant/Fund: This study was conducted through the appropriation of funds by the Visayas State University Tolosa.

References

Books

1. Ajzen, I. (1985). *From intention to actions: A theory of planned behavior*. In J. Kuhl, & J. Beckman (Eds.), *Action control: From cognition to behavior*. New York: Springer-Verlag.
2. Brannick, M. T., Salas, E. & Prince, C. (1997). *Team performance assessment and measurement theory, methods, and applications*. Mahwah, NJ: Lawrence Erlbaum Associates.
3. Clough, V. M. & Guidotti, T. L. (1992). *Occupational health concerns of firefighting*. (Vol. 13). Emmitsburg, MD: National Emergency Training Center.
4. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. (2nd ed.). Psychology Press.
5. Fishbein, M. & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
6. Foa, E. B., Huppert, J. & Cahill, S. (2006). *Emotional processing theory: An update. Pathological anxiety: Emotional processing in etiology and treatment*. 3-24.
7. Hume, D. (1966). *Enquiries concerning the human understanding and concerning principles of morals* (2nd ed.). Oxford, England: Clarendon Press.
8. Khandwalla, P. N. (1992). *Organizational design for excellence*. New Delhi: Tata McGraw Hill Publishing Company Ltd.
9. Kounalakis & Koskolou, M. (Eds.). *ICEE 2011 XIV International conference on environmental ergonomics: Book of abstracts* (236–239). Athens: National and Kapodestrian University of Athens.
10. Kreitner, R. & Kinicki, A. (2001). *Organizational behaviour*. New York: Irwin/McGraw Hill.
11. Lipman-Blumen, J. & Leavitt, H. J. (1999). *Hot groups: Seeding them, feeding them, and using them to ignite your organization*. New York: Oxford University Press.
12. McShane, S., & Glinow, M. V. (2022). *M: Organizational Behavior*. (5th ed.). McGraw-Hill Education.
13. *NFPA 1981 Standard on open-circuit Self-Contained Breathing Apparatus (SCBA) for emergency services*. (2007 Edition). National Fire Protection Association (NFPA), Quincy, MA.
14. Orner, R. (1995). *Intervention strategies for emergency response groups: A new conceptual framework*. In S. Hobfall, S. & M. de Vries (Eds.), *Impact and intervention*. Amsterdam: Kluwer Academic.
15. Parker, G. M. (1994). *Cross-functional teams*. San Francisco, CA: Jossey-Bass.
16. Stowell, F. M. (Ed.). (2015). *Essentials of fire fighting and fire department operations*. International Fire Service Training Association. Upper Saddle River, NJ: Brady Pub Fire Protection Publications.
17. Taylor, N. A. S., Lewis, M. C., Notley, S. R. & Peoples, G. E. (2011). *The oxygen cost of wearing firefighters' personal protective equipment: Ralph Was Right!* ICEE 2011 XIV International conference on environmental ergonomics: Book of abstracts (pp. 236-239). Athens: National and Kapodestrian University of Athens.
18. Vroom, V. H. (1964). *Work and motivation*. New York: Wiley and Sons.
19. Wilde, G. J. S. (1994). *Target risk*. (1st ed.). Toronto, ON, Canada, 1994: PDE Publications.
20. Wilde, G. J. (2014). *Target risk 3. Risk homeostasis in everyday life*. Digital Edition. Version, 20.

Handbooks

1. Bandura, A. (n.d.). *Social cognitive theory. Handbook of theories of social psychology: Volume 1*, 349-374.
2. Denzin, N. K. & Lincoln, Y. S. (2005). *Introduction: The discipline and practice of qualitative research*. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (pp. 1–32). Sage Publications Ltd.

Journals/Periodicals

1. Adams, P. S. & Keyserling, W. M. (1993). Three methods for measuring range of motion while wearing protective clothing: A comparative study. *International Journal of Industrial Ergonomics*, 12(3), 177–191.



2. Anderson, A. S. & Lo, C. C. (2011). Intimate partner violence within law enforcement families. *Journal of Interpersonal Violence*, 26(6), 1176–1193. <https://doi.org/10.1177/0886260510368156>.
3. Boorady, L. M., Barker, J., Lee, Y. A., Lin, S. H., Cho, E. & Ashdon, S. P. (2013). Exploration of firefighter turnout gear; Part I: Identifying male firefighter use needs. *Journal of Textile and Apparel, Technology and Management*, 8(1), 1–13.
4. Carlier, I., Lamberts, R. & Gersons, B. (2000). The dimensionality of trauma: A multidimensional comparison of police officers with and without post-traumatic stress disorder. *Psychiatric Research*, 97, 29-39.
5. Coca, A., Williams, W. J., Roberge, R. J. & Powell, J. B. (2010). Effects of fire fighter protective ensembles on mobility and performance. *Appl. Ergon.* 2010, 41, 636–641.
6. Cohen-Hatton, S. R., Butler, P. C. & Honey, R. C. (2015). An investigation of operational decision making in situational incident command in the UK fire and rescue service. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, 57(5), 793804. doi: 10.1177/0018720815578266.
7. Dervitsiotis, N. (2005). Creating conditions to nourish sustainable organizational excellence. *Total Quality Management*, 16 (8-9), 925-943.
8. Dillard, J. & Layzell, D. (2014, September). An ongoing journey of corporate social responsibility. *Accounting Forum*, Vol. 38 No. 3, pp. 212-226. 10.1016/j.accfor.2014.04.001.
9. Dorman, L. E. & Havenith, G. (2008). The effects of protective clothing on energy consumption during different activities. *European Journal of Applied Physiology*, 105(3), 463–470. doi:10.1007/s00421-008-0924-2.
10. Duarte, D. & Tennant, N. (1999). Mastering virtual teams: Strategies, tools, and techniques that succeed. *The Internet and Higher Education*, 3 (4), 229. doi: 10.1016/S1096-7516(01)00040-9.
11. Foa, E. B. & Kozak, M. J. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin*, 99, 20–35.
12. Foa, E. B., Huppert, J. D. & Cahill, S. P. (2006). Emotional processing theory: An update. In B. O. Rothbaum (Ed.), *Pathological anxiety: Emotional processing in etiology and treatment*. The Guilford Press. (p. 3–24).
13. Fullerton, C., McCarroll, J., Ursano, R. & Wright, K. (1992). Psychological responses of rescue workers: Firefighters and trauma. *American Journal of Orthopsychiatry*, 62, 371-378.
14. Guidotti, T. L. & Clough, V. M. (1992). Occupational health concerns of firefighting. *Annual Review of Public Health*, 13(1), 151-171. doi:10.1146/annurev.pu.13.050192.001055.
15. Harris, M. B., Baloglu, M. & Stacks, J. R. (2002). Mental health of trauma-exposed firefighters and critical incident stress debriefing. *Journal of Loss and Trauma*, 7, 223-238.
16. Hart, K. E. & Hope, C. W. (2004). Cynical hostility and the psychosocial vulnerability model of disease risk: Confounding effects of neuroticism (negative affectivity) bias. *Personality and Individual Differences*, 36, 1571–1582. doi.org/110.1016/j.paid.2003.06.007.
17. Helneman, E. F., Shy, C. M. & Checkoway, H. (1989). Injuries on the fireground: Risk factors for traumatic injuries among professional fire fighters. *American Journal of Industrial Medicine*, 15(3), 267–282.
18. Heydari, A., Ostadtaghizadeh, A., Ardalan, A., Ebadi, A., Mohammadfam, I. & Khorasani-Zavareh, D. (2022). Exploring the criteria and factors affecting firefighters' resilience: A qualitative study. *Chinese Journal of Traumatology*, Volume 25(Issue 2), 107–114.
19. Hytten, K. & Hasle, A. (1989). Fire fighters: A study of stress and coping. *Acta Psychiatri. Scand.* 80(Suppl.): 355:5055.
20. Judge, T. A., Ilies, R. & Scott, B. A. (2006). Work-family conflict and emotions: Effects at work and at home. *Personnel Psychology*, 59(4), 779–814.
21. Kuligowski, E. D. (2009). The process of human behavior in fires. *The Process of Human Behavior in Fires*, 5-6. doi:10.6028/nist.tn.1632.
22. Lewis, S. J. (2003). Do one-shot preventions for PTSD really work? A systematic research synthesis of psychological debriefings. *Aggression and Violent Behavior*, 8, 329343.
23. Louhevaara, V., Smolander, J., Korhonen, O. & Tuomi, T. (1986). Effects of industrial respirators on breathing pattern at different work levels. *Eur. J. Appl. Physiol.* 55:142-46.
24. Mikula, B., Jenčová, E., Vajdová, I. & Blaško, D. (2019). Some health risks to firefighters. *Repüléstudományi Közlemények*, 31(2), 135-144. doi:10.32560/rk.2019.2.10.
25. Miller, L. (1995). Tough guys: Psychotherapeutic strategies with law enforcement and emergency services personnel. *Psychotherapy: Theory, Research, Practice, Training*, 32(4), 592–600. <https://doi.org/10.1037/0033-3204.32.4.592>.
26. Neeves, R., Barlow, D. A., Richards, J. G., Provost-Craig, M. & Castagno, P. (1989). Physiological and biomechanical changes in fire fighters due to boot design modifications. *International Association of Fire Fighters and the Federal Emergency Management Agency*. (p. 477-482).
27. Park, K., Hur, P., Rosengren, K. S., Horn, G. P. & Hsiao-Wecksler, E. T. (2010). Effect of load carriage on gait due to firefighting air bottle configuration. *Ergonomics*, 53(7), 882–891.
28. Pasca, R. & Wagner, S. L. (2021). Firefighters and spouses: Hostility, satisfaction, and conflict. *Journal of Family Issues*. <https://doi.org/10.1177/0192513x211055116>.
29. Petrucci, M. N., Horn, G. P., Rosengren, K. S. & Hsiao-Wecksler, E. T. (2016). Inaccuracy of affordance judgments for firefighters wearing personal protective equipment [Abstract]. *Ecological Psychology*, 28(2), 108-126. doi:10.1080/10407413.2016.1163987.
30. Psarros, C., Theleritis, C., Economou, M., Tzavara, C., Kioulos, K. T., Mantonakis, L., Soldatos, C. R. & Bergiannaki, J. D. (2017). Insomnia and PTSD one month after wildfires: evidence for an independent role of the "fear of imminent death". *Int J Psychiatry Clin Pract.* 21(2):137-141.
31. Reischl, U. W. E., Bair, H. S. & Reischl, P. (1979). Firefighter noise exposure. *Am. Ind. Hyg. Assoc. J.* 40:482-89



32. Salazar, M. K. (1991). Comparison of four behavioral theories. *AAOHN Journal*, 39(3), 128-135. doi:10.1177/216507999103900305.
33. Scandella, F. (2015). Firefighters: Feeling the heat. *European Researcher*, 94(5). doi:10.13187/er.2015.94.
34. Sedlmeyer, L. R. & Dwyer, R. J. (2018). Fire officer leadership strategies for cost management. *Disaster Prevention and Management: An International Journal*, 27(5), 495-507. doi:10.1108/dpm-11-2017-0283.
35. Sienkiewicz-Malyjurek, K. (2016). Determinants and attributes of leadership in the public safety management system. *Procedia Economics and Finance*, Vol. 39, pp. 115-121. doi:10.1016/S2212-5671(16)30254-4.
36. Sobeih, T. M., Davis, K. G., Succop, P. A., Jetter, W. A. & Bhattacharya, A. (2006). Postural balance changes in on-duty firefighters: Effect of gear and long work shifts. *Journal of Occupational and Environmental Medicine*, 48(1), 68-75.
37. Srivastava, V. N. & Ravichandran, N. (2018). Achieving excellence through training initiatives. *Review of Professional Management- A Journal of New Delhi Institute of Management*, 16(1), 57. doi:10.20968/rpm/2018/v16/i1/129254.
38. Steyn, B. & Niemann, L. (2014). Strategic role of public relations in enterprise strategy, governance and improvability: A normative framework. *Public Relations Review*, Vol. 40, pp. 171-183. doi:10.1016/j.pubrev.2013.09.001.
39. Tuckman, B. W. (1965). Developmental sequence in small groups. *Psychological Bulletin* 65, no. 6: 384-99.
40. Wickrama, K. A. S., Lorenz, F. O., Conger, R. D., Matthews, L. & Elder, G. H. (1997). Linking occupational conditions to physical health through marital, social, and intrapersonal processes. *Journal of Health and Social Behavior*, 38, 363-375. <https://doi.org/10.2307/2955431>.
41. Wieselquist, J., Rusbult, C. E., Foster, C. A. & Agnew, C. R. (1999). Commitment, pro-relationship behavior, and trust in close relationships. *Journal of Personality and Social Psychology*, 77, 942-966.
42. Wilson, A. & Pimm, G. (1996). The tyranny of the volunteer: the care and feeding of voluntary workforces. *Management Decision*, Vol. 34 No. 4, pp. 24-40. <https://doi.org/10.1108/00251749610115134>.
43. **Internet Sources**
44. Admin et al. *Risk homeostasis theory-why safety initiatives go wrong*. Retrieved August 29, 2022 from <https://safetyrisk.net/risk-homeostasis-theorywhy-safety-initiatives-go-wrong/>.
45. Authors, A. & Horn, G. (2017). *Thermal response to firefighting activities in residential structure fires: Impact of job assignment and suppression tactic*. Retrieved July 07, 2020 from <https://www.tandfonline.com/doi/full/10.1080/00140139.2017.1355072>.
46. Bookchin, M. (2007). *What is social ecology? Social ecology and communalism*. Retrieved November 14, 2022 from https://www.onlinemswprograms.com/wpcontent/uploads/sites/55/2021/06/M_Bookchin_What_is_Social_Ecology.pdf.
47. Bureau of Fire Protection. (2015). *BFP operational procedures manual*. Retrieved September 13, 2020 from <https://bfp.gov.ph/bfp-operational-procedures-manual-2/#.X13r4GgzbDd>.
48. Bureau of Fire Protection. (2008). *Republic Act No. 9514: GOVPH*. Retrieved September 13, 2020 from <https://www.officialgazette.gov.ph/2008/12/19/republic-act-no-9514/>.
49. Crossman, A. (2020). *An overview of qualitative research methods. Direct observation, interviews, participation, immersion, focus groups*. Thought Co. Retrieved August 09, 2022 from <https://www.thoughtco.com/qualitative-research-methods-3026555>.
50. Dwyer, R. (2018). *Fire officer leadership strategies for cost management*. Scholar works. Retrieved August 12, 2022 from https://scholarworks.waldenu.edu/sm_pubs/135/.
51. Firefighter Nation Content Directors. (2018). *You swore an oath*. Retrieved June 09, 2021 from <https://www.firefighternation.com/firstrescue/you-swore-an-oath/#gref>.
52. Fahy, R. F., Petrillo, J. T. & Molis, J. L. (2020). *Firefighter deaths by cause and nature of injury*. Retrieved July 06, 2020 from <https://www.nfpa.org/News-and-Research/Data-research-and-tools/Emergency-Responders/Firefighter-fatalities-in-the-United-States/Firefighter-deaths-by-cause-and-nature-of-injury>.
53. *Fighting risk homeostasis in public safety*. (2020). Retrieved June 09, 2021 from <https://www.lexipol.com/resources/blog/more-or-less-safe-fighting-risk-homeostasis-in-public-safety/>.
54. *Firefighter resources - job hazards*. (2018). Retrieved July 07, 2020 from <https://www.cdc.gov/niosh/firefighters/hazard.html>.
55. Fleming, R. S. & Zhu, F. X. (2009). *Managerial responsibilities of the contemporary fire chief*. Journal of Global Business Issues, Vol. 3 No. 2, p. 57. Retrieved August 09, 2022 from <http://www.jgbi.org>.
56. Gerber, C. (n.d.). *Firefighter hazards*. Retrieved July 07, 2020 from https://safety.lovetoknow.com/Firefighter_Hazards.
57. Gupta, C., Ferguson, S., Aisbett, B., Dominiak, M., Chappel, S., Sprajcer, M. & Vincent, G. (2020). *Hot, tired and hungry: The snacking behaviour and food cravings of firefighters during multi-day simulated wildfire suppression*. Retrieved July 07, 2020 from <https://www.mdpi.com/2072-6643/12/4/1160>.
58. Jaehne, R. L. (2008). *Firefighter fatalities and injuries: The role of heat stress and PPE*. Retrieved August 12, 2022 from <https://www.firehouse.com/safety-health/article/10495791/firefighter-fatalities-and-injuries-the-role-of-heat-stress-and-ppe>.
59. Light, A. (2016). *An examination of the ascension to and experiences in the metropolitan chief fire officer position: Implications for leadership, policy and practice*. (Electronic Thesis or Dissertation). Retrieved August 09, 2022 from <https://etd.ohiolink.edu/>.



60. Makinen, H. (2008). *Firefighter*. Retrieved July 07, 2020 from <https://www.sciencedirect.com/topics/engineering/firefighter>.
61. Mayuga, J. L. (2018). *Tragedy of fires: Death and destruction in the Philippines*: Jonathan L. Mayuga. Retrieved July 07, 2020 from <https://businessmirror.com.ph/2018/03/21/tragedy-of-fires-death-and-destruction-in-the-philippines/>.
62. McFarland, C. & Pagano, M. A. (2016). *City fiscal conditions 2016*. National League of Cities, 1-19. Retrieved August 09, 2022 from www.nlc.org/.
63. McQuerrey, L. (2018). *The risks of being a fireman*. Retrieved July 07, 2020 from <https://work.chron.com/risks-being-fireman-8600.html>.
64. Meina, M., Ratajczak, E., Sadowska, M., Rykaczewski, K., Dreszer, J., Bałaj, B. & Krasuski, A. (2020). *Heart rate variability and accelerometry as classification tools for monitoring perceived stress levels-a pilot study on firefighters*. Retrieved July 07, 2020 from <https://www.mdpi.com/1424-8220/20/10/2834/html>.
65. Milen, D. (2009). *The ability of firefighting personnel to cope with stress*. Retrieved May 30, 2021 from <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=1005&context=jsc>.
66. Morris, C. & Chander, H. (2018). *The impact of firefighter physical fitness on job performance: A review of the factors that influence fire suppression safety and success*. Retrieved July 07, 2020 from <https://www.mdpi.com/2313-576X/4/4/60/html>.
67. National Fire Protection Association (NFPA). (2019). *Fire department calls*. Retrieved August 09, 2022 from <https://www.nfpa.org/News-and-Research/Data-research-and-tools/EmergencyResponders/Fire-department-calls>.
68. NetMBA.com. (2010). *Herzberg - motivation-hygiene theory*. Retrieved May 30, 2021 from <http://www.netmba.com/mgmt/ob/motivation/herzberg/>.
69. NIST. (2016). *Personal protective equipment*. Retrieved August 11, 2022 from <https://www.nist.gov/el/fire-research-division-73300/firegov-fire-service/personal-protective-equipment>.
70. Park, H., Park, J., Lin, S. H. & Boorady, L. M. (2014). *Assessment of firefighters' needs for personal protective equipment - fashion and textiles*. Retrieved August 12, 2022 from <https://fashionandtextiles.springeropen.com/articles/10.1186/s40691-014-0008-3>.
71. *Post Traumatic Stress Disorder*. (n.d.). Retrieved June 09, 2021 from https://global.oup.com/us/companion.websites/fdscontent/uscompanion/us/pdf/treatments/ptsd_workbook_ch1.pdf.
72. *Republic Act No. 6975*: Govph. Official Gazette of the Republic of the Philippines. (1990, December 13). Retrieved August 6, 2022 from <https://www.officialgazette.gov.ph/1990/12/13/republic-act-no-6975/>.
73. *Republic Act No. 7160*: Govph. Official Gazette of the Republic of the Philippines. (1991, October 10). Retrieved October 5, 2023, from <https://www.officialgazette.gov.ph/1991/10/10/republic-act-no-7160/>.
74. Scheithauer, M. (n.d.). *Fighting fire with psychology: Do fire prevention interventions apply theories of behavior-change?* Retrieved June 07, 2021 from https://www.utwente.nl/en/bms/perv/informationstudents/StudentTheses/Completed%20Bachelor%20theses%20assignments/BachelorThesis_MartinScheihauer.pdf.
75. *The 5 greatest disease risks to firefighters*. (2019). Retrieved July 07, 2020 from <https://www.providentins.com/the-5-greatest-disease-risks-to-firefighters/>.
76. Thompson, B. (2018). *An overview of emotional processing theory*. Retrieved May 30, 2021 from <https://portlandpsychotherapytraining.com/2011/11/07/an-overview-of-emotional-processing-theory/>.
77. *Tuckman: Forming, storming, norming, performing model*. (n.d.). Retrieved June 09, 2021 from <https://www.businessballs.com/team-management/tuckman-forming-storming-norming-performing-model/>.
78. Universiteit Van Pretoria. (January 29). *Literature Review: Teaming in organisations*. Retrieved September 13, 2020 from <https://repository.up.ac.za/bitstream/handle/2263/25399/02chapter2.pdf?sequence=3&isAllowed=y>.
79. Victor, V. (1964). *Expectancy theory (process theory)*. Retrieved August 11, 2022 from <https://www.potentialunearthed.co.uk/wp-content/uploads/2017/11/Vrooms-Expectancy-of-Needs-theory.pdf>.
80. Walters, J. (2011). *Firefighters feel the squeeze of shrinking budgets*. Retrieved August 09, 2022 from <http://www.governing.com/topics/public-workforce/firefighters-feel-squeeze-shrinking-budgets.html>.