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Leadership, Perceptions, and Turnover in Fire and Emergency New Zealand

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This is to certify that the doctoral study by

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Walden University
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Abstract

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MBA, Australian Institute of Business, 2016

GDM, Australian Institute of Business, 2016

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Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Fire and Emergency New Zealand experiences voluntary turnover at local volunteer fire brigades. The purpose of the quantitative component of this sequential explanatory study was to examine the relationship between volunteer chief fire officers' leadership styles, perceptions of organizational support, and voluntary firefighter turnover; the purpose of the qualitative component was to explore strategies that volunteer chief fire officers used to reduce volunteer firefighter turnover. The population for the quantitative study was 21 volunteer chief fire officers, and the population for the qualitative study was 6 volunteer firefighters. The theoretical frameworks that grounded this study were transformational leadership theory (TL) and organizational support theory (OST). The data collection process for the quantitative component was 2 surveys, and the data analysis process was Pearson's correlation. The data collection process for the qualitative component was face-to-face, semistructured interviews, and the data analysis process was thematic analysis. The quantitative results showed a significant statistical relationship between OST and turnover ($p<.001$), and no significant relationship between TL and turnover ($p>.001$). The qualitative results yielded 5 themes for strategies that reduce firefighter turnover: family acknowledgment and involvement, a positive culture and satisfaction, robust vetting and induction processes, flexibility in training, and communication and recognition. The implications for positive social change included the identification of strategies for fire service leaders to use in promoting the worth, dignity, and development of volunteers, to foster unity and enhance safety within communities.

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Dedication

I dedicate this study to my family; to every volunteer who gives of their time so generously; to young people who want to make a difference in the world, and; to any person who believes in the value of education. I endeavored on this journey to become a doctoral scholar because I wanted to make a credible contribution to volunteerism, and to the value of volunteer leadership. I thought the process and outcome would give me greater authority in the sector, and provide for a thought-provoking document that allowed organizational leaders to better lead, and serve, a voluntary workforce. What I got out of this process, though, was much more profound.

I discovered that success comes to those who believe; that resilience is an outcome of dogged determination; that following a set path is acceptable, but setting a new path is inspirational; that prioritizing one's own goals does not need to come at the detriment of others, and; that with the power of a loving, supportive family and whānau environment, anything, absolutely anything, can be accomplished.

Throughout this journey, I met incredible volunteers, and leaders of volunteers, who choose to attend incidents and act in emergency situations because of their belief that what they do, does make a difference. It does. Volunteers are people, and organizations exist because of, and for, people. It is okay, as a volunteer leader, to treat volunteers as equal people. In fact, when that occurs, a mutual respect forms that is the basis of teamwork, collaboration, and trust.

I thank volunteers and volunteer leaders in New Zealand and around the world. Your contribution is valued. You are valued. Please remember that.

Acknowledgments

I do not stand here alone. I thank, with all of my heart, my family. To my wife, Yorana, who walked this journey beside me, in front of me, and behind me – your love and strength makes me a better person every day. To my parents, Chris and Cindy – your unwavering encouragement and positive reinforcement have molded me into the man I am today. To my Nana, Betty, and Papa, John, in Canada – your inspirational selflessness and unconditional love have provided me with a solid value base and examples of how to treat others. To my late Nana Long – your belief in the value of education gave me the encouragement to complete my masters and doctoral studies. To my brothers, Christopher and Michael, and my sister, Chantelle – the bond of siblings is unbreakable, and the adventures we have had, and will have, will stay with me forever, and bring me excitement for the future. To my friends, supporters, and fellow doctoral candidates who have provided a listening ear and given words of wisdom when needed – I thank you.

I thank, with humble sincerity, the faculty and support teams at Walden University, who live by the noble mission of positive social change, and who go above and beyond for candidate success. Dr. Peter Anthony, my Chair, mentor, and friend – you believed in me when others did not. You are a major reason this study has been undertaken and completed to a scholarly standard. I thank you for choosing me and for not wavering from our commitment to make a difference. To my second committee member, Dr. Brandon Simmons – the value of your contribution is seen throughout this document. To my URR, Dr. Judith Blando – your attention to detail and no-nonsense approach has allowed me to keep momentum throughout this journey. I thank you all.

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Section 1: Foundation of the Study

Employee turnover has been a focus of interest to scholars for decades (March & Simon, 1958; Porter & Steers, 1973) and continues to be an area of interest (Nelissen, Forrier, & Verbruggen, 2017). High voluntary turnover has adverse impacts on organizational outcomes, including quality of work done, customer service and satisfaction, and the efficiency and effectiveness of operations (Abii, Ogula, & Rose, 2013; Hancock, Allen, Bosco, McDaniel, & Pearce, 2013). Increased voluntary turnover also influences organizational performance, cohesion, and future sustainability (Kwon, 2014).

Background of the Problem

Fire and Emergency New Zealand consists of 13,310 individual firefighters, of which more than 11,500 (86%) are volunteers (New Zealand Fire Service [NZFS], 2016). Throughout New Zealand, urban, suburban, and rural communities rely on the voluntary service that unpaid firefighters give for training, community events, and emergency situations. The New Zealand government, as the primary stakeholder of Fire and Emergency New Zealand (FENZ), do not budget to pay every firefighter throughout the country, nor is that notion aligned to the culture of voluntary service that exists across New Zealand and within the fire service (NZFS, 2016). With this in mind, the reliance upon a volunteer workforce, while positive for financial reasons, does have its challenges regarding retention, performance, and sustainability.

Employee and volunteer turnover can diminish the cohesion and productivity that an organization achieves over time (Wang, Wang, Xu, & Ji, 2014). Although prior researchers examined the challenges of employee retention in volunteer fire services (Frattaroli et al., 2013; Haug & Gaskins, 2012), the current literature does not include recommended strategies for volunteer fire service leaders to work with volunteers to prevent turnover, nor is the literature specific to the New Zealand environment. A declining volunteer workforce is a concern for many community organizations, though for a service that relies on volunteer services for emergency responsiveness, this concern is more serious, and can have widespread implications. In this study, I investigated, evaluated, and made recommendations regarding volunteer turnover in the Otago region of Fire and Emergency New Zealand, to ensure the financial sustainability and future prosperity of the organization.

Problem Statement

Fire and Emergency New Zealand is experiencing increased voluntary turnover at local volunteer fire brigades (New Zealand Fire Service [NZFS], 2015). Since 2013, the average national turnover rate of volunteer firefighters was 8.4% per annum (NZFS, 2016). The general business problem was volunteer firefighter turnover affects sustainability and increases financial costs. The specific quantitative problem was some fire service leaders do not know the relationship between volunteer chief fire officers' leadership styles, volunteer chief fire officers' perceptions of organizational support, and volunteer firefighter turnover. The specific qualitative problem was some fire service leaders lack effective strategies to reduce volunteer firefighter turnover.

Purpose Statement

The purpose of this sequential explanatory mixed methods study was two-fold. The purpose of the quantitative component was to examine the relationship between (a) the leadership styles of volunteer chief fire officers, and (b) perceptions of organizational support, and volunteer firefighter turnover. The purpose of the qualitative component was to explore strategies that volunteer chief fire officers use to reduce volunteer firefighter turnover. The quantitative population was volunteer chief fire officers within the East Otago area of the Otago region in Fire and Emergency New Zealand. The qualitative population was six volunteer firefighters within the East Otago area of the Otago region in Fire and Emergency New Zealand. The implications for positive social change included providing fire service leaders in the area, region, and across the country with improved leadership strategies to retain volunteer firefighters, which may contribute to a high-quality workforce. An improved, stable workforce, serves to benefit the individual, communities, and general public, through providing high-quality fire, medical, and emergency services.

Nature of the Study

Qualitative, quantitative, and mixed methods are the three methodologies used in research (Yin, 2017). I used a mixed methods approach to explore the impact that leadership styles and perceived organizational support had on retaining volunteer firefighters in Fire and Emergency New Zealand. By employing a mixed methods approach, a researcher integrates quantitative and qualitative data collection and analysis (Saunders, Lewis, & Thornhill, 2015). In their 2017 study, Paull and Girardi

stated there had been an increase in recognition over the last decade regarding the value of researchers using mixed methods approaches to investigate complex social issues, particularly in volunteering research. The authors found significant benefits to a mixed methods approach and concluded that the recognition of the value of this methodology was likely to continue its increase.

Researchers use a qualitative method to explore connections among various issues, to understand the current phenomenon in a real-life context (Ruzzene, 2015); quantitative researchers examine cause and effect, or the relationship and differences among variables (Watkins, 2012). I chose a mixed method approach for my study because this methodology goes beyond simply collecting quantitative and qualitative data; the methodology provides readers with a reassurance that the data will be integrated, related, or mixed at a stage, or stages, of the research process (Wright & Sweeney, 2016). This reassurance of integration increases the validity, reliability, and rigor of the study (Yin, 2017).

The single-phase timing of the quantitative and qualitative data gathering of this study, was the reason I chose the sequential explanatory design. This design involves the collection and analysis of quantitative data, followed by a collection and analysis of qualitative data, so that the researcher may best understand the research problems and answer the research questions. The objective of this approach is to use qualitative results to explain and interpret the quantitative findings (Govender, Grobler, & Mestry, 2016). Using a sequential explanatory mixed methods approach, comprised of structured surveys

and supported by semistructured interviews, best answered my specific research questions.

When selecting the sequential explanatory design, I considered and rejected five other designs. The sequential exploratory design is an initial phase of qualitative data collection and analysis, followed by a phase of quantitative data collection and analysis (Salmon, 2016; Salmon et al., 2015). My intent for this study was to collect quantitative data first, therefore this design was not appropriate. The sequential transformative design also has two phases in which the researcher determines the order of data collection, guided by a theoretical perspective, and the results are integrated at the end of the study (Salmon, 2016). My intent for this study was to integrate results throughout the research process, therefore this design was not appropriate. The concurrent triangulation design involves the concurrent, but separate, collection and analysis of quantitative and qualitative data (Salmon, 2016). My intent for this study was to collect quantitative data first, therefore this design was not appropriate. The concurrent nested design is an approach that gives priority to one of the methods and guides the project, while another is embedded (Salmon, 2016). My intent for this study was to refrain from prioritizing one method over another, therefore this design was not appropriate. The concurrent transformative design involves the concurrent, but separate, collection and analysis of quantitative and qualitative data and is guided by a theoretical perspective in the purpose or research question of the study (Salmon, 2016). My intent for this study was to collect quantitative data first, therefore this design was not appropriate.

Research Questions

The quantitative research question I aimed to answer through this study was: Is there a statistically significant relationship between volunteer chief fire officer leadership styles, volunteer chief fire officers' perceptions of organizational support, and volunteer firefighter turnover?

The qualitative research question I aimed to answer through this study was: What strategies do volunteer chief fire officers use to reduce volunteer firefighter turnover?

Interview Questions

To answer the qualitative research question, the following interview questions were asked of six local volunteer firefighters who had a transformational leader.

Questions Regarding Strategies to Reduce Voluntary Turnover

1. What strategies does the volunteer chief fire officer use to reduce volunteer firefighter turnover?
2. What strategy used by the volunteer chief fire officer works best to reduce volunteer firefighter turnover?
3. How do other firefighters respond to different ways of reducing volunteer firefighter turnover?
4. How does volunteer firefighter turnover affect the brigade?
5. Are there any further comments you wish to make regarding volunteer firefighter turnover within the brigade, that may not have been addressed through the interview questions?

Hypotheses

Research Question 1 (RQ1): Is there a statistically significant relationship between volunteer chief fire officer leadership styles and volunteer firefighter turnover?

Null Hypothesis ($H_0$1): A significant correlation does not exist between volunteer chief fire officer's leadership style and volunteer firefighter turnover.

Alternative Hypothesis (H_a1): A significant correlation does exist between volunteer chief fire officer's leadership style and volunteer firefighter turnover.

Research Question 2 (RQ2): Is there a statistically significant relationship between volunteer chief fire officers' perceptions of organizational support and volunteer firefighter turnover?

Null Hypothesis ($H_0$2): A significant correlation does not exist between volunteer chief fire officers' perceptions of organizational support, and volunteer firefighter turnover.

Alternative Hypothesis (H_a2): A significant correlation does exist between volunteer chief fire officers' perceptions of organizational support, and volunteer firefighter turnover.

Theoretical Framework

This study was grounded in two theories: transformational leadership theory and organizational support theory. McClellan (2017) stated that a theoretical framework proposes the perspective for undertaking research and provides the researcher with a manner in which to interpret outcomes. A detailed and valid theoretical framework with

one or more relevant theories justifies the importance and significance of the research (Jelaca, Bjekic, & Lekovic, 2016; McClellan, 2017). Organizational support theory (OST) is defined as a worker's global beliefs about the extent to which the organization values their contribution and cares about their well-being (Eisenberger, Huntington, Hutchison, & Sowa, 1986). The central construct within OST, is perceived organizational support (POS), and refers to the degree to which workers believe their work-organization values their contributions and cares about their well-being (Baran, Shanock, & Miller, 2012). Higher levels of organizational support may lead to workers' perceiving themselves to be a better fit with the organization, and the more likely workers are to be retained in their organization (Farrell & Oczkowski, 2009). OST is consistent with the NZFS (2015) strategy to further value volunteers as a crucial workforce within the organization, contributing to the sustainability and the quality of services that are provided.

Whereas OST focuses on the volunteer/follower, transformational leadership (TL) theory focusses on the leader/manager. Leadership behaviors, according to Burns (1978) and Bass (1985), can be described as either transactional or transformational. The focus of a transformational leader is on encouraging and motivating followers to look beyond that of their own self-interest, to the interests of the group for a collective, shared purpose (Caillier, 2014). The TL style, as outlined by Stinglhamber, Marique, Caesens, Hanin, and De Zanet (2015) has four components that remain constant: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. A TL

who possesses all four of these components, can affect the expected and desired outcomes of the follower (Stelmokiene & Endriulaitiene, 2015).

Operational Definitions

The terms and definitions used in this study included the following:

Job satisfaction: Job satisfaction is employees' feelings of contentment toward their job (Collie, Shapka, Perry, & Martin, 2015).

Leadership: The relation between an individual and group who share common interests, where the individual determines and guides the group to behave in a certain manner. Leadership is the act of influencing a group to work together to set and achieve common goals (Pardesi & Pardesi, 2013).

Multifactor Leadership Questionnaire (MLQ): A questionnaire developed by Bass and Avolio that measures the characteristics of transformational and transactional leadership styles. This questionnaire can be used to measure self-perceived leadership behaviors, or how the leader is perceived by peers or subordinates (Dimitrov & Darova, 2016).

Organizational commitment: The willingness of an individual to invest and contribute to an organization they serve (Ching-Fu & Yu, 2014).

Perception: The way in which something is regarded, understood, or interpreted by a person (Witt, 2017). Perception is the sensory experience of environmental stimuli and actions which influence the way individuals view the world (Cherry-Bukowiec et al., 2015).

Transformational leadership: Leading through influence, raising the followers' level of consciousness about the importance and value of achievement and the methods applied to meet those achievements (Bass, 1985; Burns, 1978).

Volunteer: A person who dedicates his or her personal time and receives no compensation for the effort (Mano & Giannikis, 2013).

Volunteering: Volunteering is work done of one's own free will, unpaid, for the common good (Volunteering New Zealand, 2017).

Worker turnover: The ratio of the number of workers replaced during a specific timeframe in an organization or industry, to the average number of workers in that organization or industry (Iqbal & Hashmi, 2015)

Assumptions, Limitations, and Delimitations

The disclosure and mitigation of assumptions, limitations, and delimitations may be required in a study. Assumptions are presumed, yet unverified, facts that relate to a study (Martin & Parmar, 2012). Limitations are potential weaknesses that a researcher has no control over, that can affect results or the outcome of a study (Helm, Renk, & Mishra, 2016). Delimitations are boundaries imposed by the researcher that limit the scope of the study (Guni, 2012; Marshall & Rossman, 2016). In this subsection, I describe and explain the assumptions, limitations, and delimitations that may have impacted this study.

Assumptions

Acknowledging and understanding assumptions can strengthen the validity and reliability of research. Kirkwood and Price (2013) stated that, for the proper interpretation

of research findings, researchers must identify underlying assumptions, and concluded that if a researcher fails to recognize assumptions prior to commencing data collection, research results may come into question. The five assumptions in this study were that (a) the leadership styles and actions of volunteer chief fire officers influence retention rates, (b) that volunteer chief fire officers with higher retention rates successfully implement retention strategies, (c) participants would be able to recall retention strategies, (d) all participants would respond openly and honestly to all interview questions, and (e) that themes relating to retention would be inherent in the results of this study.

Most of these assumptions were supported by the results of this study. Participants appeared to be open and honest in sharing strategies and appeared to be genuinely interested in the outcomes of this research. Participants were also accurate in the recollection of retention strategies, and the resulting themes of the face-to-face, semistructured interviews were inherent throughout this study. The only assumption that was not supported by study results was that leadership styles and actions of volunteer chief fire officers influence retention rates. The results of this study did not support that leadership styles influence retention rates; however, the results did confirm that the actions of volunteer chief fire officers influence retention rates through perceptions of organizational support.

Limitations

Limitations of a study are important for identifying weaknesses and opportunities for future research (Helm et al., 2016; Kirkwood & Price, 2013). A limitation within this study may impede my ability to generalize research results after data has been collected

and analyzed. The five limitations in this study were (a) the culture of the geographic area may have influenced the results, (b) participants may have been reluctant to disclose all information, (c) not all experiences and strategies of volunteer chief fire officers regarding retention would be transferable to all Fire and Emergency New Zealand brigades, (d) I may not have been able to locate volunteer chief fire officers within fire brigades that were willing to participate in the study, and (e) the potential of researcher bias throughout the process.

From the research and analysis processes that were undertaken in this study, I found that the culture of the area did influence the responses from volunteer chief fire officers, that the transferability of strategies cannot be concluded until further research occurs, and that while every effort was taken to limit researcher bias, there may have been some bias present. These limitations are evaluated in detail, in the recommendations for further research section on pages 171-173.

The limitations that were not present within this study included: participants may be reluctant to disclose all information, and I may not be able to locate volunteer chief fire officers within fire brigades that are willing to participate in the study. Participants who were interviewed for the qualitative component of this study showed no signs of reluctance to share strategies and openly commended me for undertaking the research. In addition, I was able to complete a census sample for the quantitative component of this study and every volunteer chief fire officer willingly participated in completing two surveys.

Delimitations

Delimitations are boundaries imposed to focus and complete a study. The three delimitations in this study were: (a) I was selective and purposeful with the inclusion of participants from the East Otago area of the Otago region in New Zealand, (b) I have made a selective and purposeful exclusion of career fire brigade chief fire officers (I only considered and collected data from voluntary fire brigades for this study), and (c) I was selective and purposeful with the inclusion of participants who have equal-or-greater-to 5 years of continuous service. I put all of these boundaries in place to limit the sample size and ensure the study was completed in a reasonable timeframe. These boundaries did not impact the validity or reliability of the research.

Significance of the Study

Organizational leaders in a nonprofit, volunteer setting, must balance financial performance with the mission of the organization, and the expectations of volunteers. Therefore, leaders, like those at Fire and Emergency New Zealand, must seek to maximize volunteer retention, to minimize the costs of recruitment and onboarding, and maintain critical knowledge capital within the workforce. In this section, I outline the benefits of maximizing volunteer firefighter retention, minimizing costs, and maximizing outputs.

Contribution to Business Practice

This study is significant to business practice because it provided a practical model for understanding the relationship between fire service leaders' characteristics, and volunteer retention. The data from this study may be of value to Fire and Emergency

New Zealand because positive stakeholder leadership can lead to organizational sustainability (Harrison & Wicks, 2013). The United States Fire Administration (United States Fire Administration [USFA], 2007) indicated that fire service leaders face a wide variety of challenges when managing personnel, and many leaders lack effective retention and leadership strategies. Retaining employees and volunteers in the public services sector can contribute to the creation of a high-quality workforce (Harrison & Wicks, 2013). With the results of this study, I may be able to encourage fire service leaders to promote leadership styles that positively influence the retention of volunteer firefighters, which will improve the effectiveness and reliability of fire protection to the public. The United States Fire Administration (USFA) found that fire service leaders need to create a culture for future leaders to improve the industry (USFA, 2012), a notion that is consistent with each theoretical framework that I identified and referenced in this study: the OST and TL.

Implications for Social Change

Through successfully implementing the results of this study, fire service leaders may contribute to positive social change by promoting the worth, dignity, and development of individual volunteers, creating more cohesive, positive, and united communities. With volunteers adequately supported and cared for in their roles, their contribution to the organization may increase and the community may benefit from a more proficient and effective emergency service. Because this study was geographically diverse, the phenomena of more proficient and effective volunteer firefighters can be

widespread, with positive social change occurring throughout the Otago region, and beyond.

Because 14.1% of all volunteers complete over 50% of the total volunteer hours per annum (Volunteering New Zealand, 2018), if leaders are able to effectively undertake activities that value the volunteer and their contribution, those volunteers may take their positive experiences with them to other voluntary roles, and the creation of supplementary environments where volunteers are valued may be achieved in similar organizations around the area, region, and country. The occurrence of supplementary environments would greatly increase the positive social change that may be achieved for communities, and further demonstrates the opportunity that fire service leaders have to influence New Zealanders, and New Zealand society, for the better.

A Review of the Professional and Academic Literature

The objective of this literature review was to synthesize literature as it relates to the topic of volunteer turnover. A literature review allowed me, as the researcher, to identify contributing literature, gain support for the research topic, and develop a deeper understanding of the conceptual framework. The academic databases I have used for collecting relevant literature included business source complete, ProQuest, Emerald management journals, Sage journals online, EBSCOhost, Taylor and Francis online, and Google scholar. The dates of the peer-reviewed sources, and other scholarly publications included in this literature review, range from 1958 to 2018. I verified the peer-review status of journal articles used throughout this section by using Ulrichsweb global serials directory.

I was able to access academic databases for this study through Walden University, Otago University, and Massey University libraries. I used basic search terms such as *volunteer, volunteer commitment, voluntary turnover, volunteer motivation, volunteer retention, volunteer of nonprofit, volunteer nonprofit, leadership styles, perceived organizational support,* and *organizational support* to ensure a review of all available literature on this topic. It is important to note that while Fire and Emergency New Zealand has limited documents and research on the topic of retention, the United States Fire Administration has many relevant and scholarly sources that I found very useful and used throughout the literature review.

The calculated percent of scholarly sources in this literature review that were published within 5 years of my expected completion, 2018, was 92%. I used a Microsoft Excel spreadsheet to track sources to ensure that the required, minimum 85% of literature review documents in this study meet Walden University's peer-review requirements. This study included 272 scholarly sources, of which the literature review included 134. Of the 134 sources, six are books, 121 are peer-reviewed articles, and seven are government sources. The literature review includes the following themes: voluntary turnover, volunteerism, contrasts between paid employees and volunteers, generational factors, barriers to retention, strategies to reduce volunteer turnover, and alternative theories. The following subsections of literature that are relevant to my research question and outcomes, include a synthesis of each key topic, demonstrating the connection to this study and potential study outcomes.

Voluntary Turnover

Employee turnover has been a focus of interest to scholars for decades (March & Simon, 1958; Porter & Steers, 1973) and continues to be an area of interest (Nelissen et al., 2017). To convey the impact of voluntary turnover on organizations, Goldberg (2014) concluded that the cost of employee turnover to organizations has been estimated to cost, on average, approximately 50 to 60% of the employee's salary. For the purpose of this literature review, I will refer to employees and volunteers, as workers.

Research on the topic of voluntary turnover began with March and Simon (1958) when the authors focused on examining the relationship between employee turnover behavior and job satisfaction. Through their research, March and Simon (1958) developed a theoretical model of organizational equilibrium, and proposed that the primary drivers for a worker to leave an organization related to ease-of-movement and desirability-of-movement. Research found (Ellingson, Tews, & Dachner, 2016; Gottlieb, Maitland, & Shera, 2013; March & Simon, 1958; Nelissen et al., 2017) that a negative relationship existed between job satisfaction and worker-turnover, with lower-levels of turnover being linked to higher levels of job satisfaction.

Since 1958, theorists have further researched the relationship between job satisfaction and turnover, proposing a range of addition personal and work-related factors to be contributors to voluntary turnover. Porter and Steers (1973) developed a five-dimension turnover model that included the elements of extrinsic rewards, advancement opportunities, constituent attachments, tenure or investment with the organization, and

non-work influences. The five-dimension model reinforced that a worker is willing to remain within an organization if the individual's values are aligned to that of the organization: the stronger the link, the higher the level of organizational commitment. In support of these findings regarding the relationsip between the follower and organization, was an investigation by Tse, Huang, and Lam (2013) into the impact that leaders have on followers' intentions to stay and turnover rates.

The authors' findings suggested that although leaders may facilitate supervisor based and organization based social exchanges, it is the exchange with the organisation that translates the leadership effect into turnover intention. Thus, followers may continue reciprocating transactions with an organization through a transfer within the organization to withdraw from a low-quality relationship with their leader. This notion of reciprocation was reinforeced with a study by Aldatmaz, Ouimet, and Van Wesep (2018) in which the authors found a link between follower satisfaction and the quality of relationships. With a focus of research on job satisfaction and the predictive link to voluntary turnover (Ellingson et al., 2016), researchers (Guha & Chakrabarti, 2015; Memon, Salleh, & Baharom, 2016) suggested that specific events may occur as a result of the worker creating the ultimate state of satisfaction or dissatisfaction, and leading to the worker considering their future employment options within, or external to, the organization.

Turnover can be measured under two categories: involuntary turnover and voluntary turnover. Involuntary turnover can be experienced when one or more workers leave an organization, not of their own free will or choice, and likely due to terminations,

lay-offs, or restructuring (Karsan, 2007). Voluntary turnover, in contrast, is experienced when one or more workers, by their own free will or choice, choose to leave the organization when leaders would prefer them to be retained (Memon et al., 2016). While leaders of an organization, in general, choose to develop plans to mitigate risks associated with involuntary turnover, such development and preparation are lacking in regard to voluntary turnover (Memon et al., 2016), with adverse impacts being absorbed through the direct costs of recruitment and selection (Karsan, 2007). Indirect costs (Karsan, 2007) are often underestimated and include lost or reduced productivity, service disruption, loss of worker morale, and reduced revenue.

Employee turnover research has shown a positive correlation to voluntary turnover being influenced by such variables as individual, organization, and economic factors (Mueller & Price, 1990). As previously discussed, organizational commitment, well-being, and job satisfaction in the workplace are all predictors of turnover and turnover intention (Memon et al., 2016). The increasing age, and ageing, of the world's workforce presents organizational leaders with a challenge that requires them to retain qualified, skilled, and competent workers (Guha & Chakrabarti, 2015). This ensures the organization gains, or retains, competitive advantage, and effectively provides for the continuation of high-quality care, support, and service to customers, stakeholders, and society.

Synthesizing the development of turnover theories, scholars have developed a conceptual framework of voluntary turnover that consists of eight forces influencing turnover intention (Maertz, Boyar, & Pearson, 2012). These forces are: affective,

calculative, contractual, behavioral, alternative, normative, moral/ethical, and constituent (Maertz Jr & Griffeth, 2004). Affective forces are the emotional responses, positive or negative, that a worker has toward the organization that can cause comfort or discomfort. Calculative forces are the rational calculations a worker has about the probability of achieving goals within their current role or organization. Contractual forces are perceived obligations of the worker to the organization through a psychological contract or implied reciprocity. Behavioral forces are the desires of the worker to avoid, based on previous behavior, the costs and discomfort of resigning from an organization. Alternative forces are the degree, and strength of, self-efficacy of the worker regarding the attainability and availability of alternative organizations for employment. Normative forces are the levels of desire, expressed by the worker, for following perceived expectations of individuals not involved with the organization, namely friends and family. Moral/ethical forces are the desires by the worker to remain consistent with values and behaviors concerning turnover. Finally, constituent forces are the attachments of a worker to individuals or groups within the organization (Maertz Jr. et al., 2012), and the resulting influences of those attachments on turnover intention.

Turnover Intention. Researchers (Chen, Wen, Peng, & Liu, 2016; Waribugo & Dan-Jumbo, 2017) found that various factors and conditions can influence the prevention of workers from turning the intention to leave an organization, into turnover behavior; therefore, considerable efforts have been made by scholars to reinforce the importance for organizational leaders to acknowledge the turnover intentions of workers (Aydogdu & Asikgil, 2011; Karatepe & Kilic, 2015). Turnover intention is, by definition and

according to Aydogdu and Asikgil (2011), the behavioral attitudes of an individual looking to withdraw from the employment or service of an organization. Turnover intention has been concluded by scholars (Aydogdu & Asikgil, 2011; Karatepe & Kilic, 2015) to effectively predict actual turnover within organizations.

Workers who experience high-levels of organizational commitment, commonly measured through affective commitment, high sacrifice, normative commitment, and lack of alternatives, demonstrate the lowest-levels of turnover intention (Fazio, Gong, Sims, & Yurova, 2017). Supervisor and leader support can also influence turnover intention (Hofhuis, Van der Zee, & Otten, 2014). Specific factors that influence worker turnover intention are advancement and promotion opportunities (Chen et al., 2016), satisfaction levels with pay and rewards (wage and non-wage benefits) (Buttner & Lowe, 2017), family-friendly policies (NZFS, 2015), communication from leaders (Fazio et al., 2017), and training and development programs (NZFS, 2015).

The mitigation of voluntary turnover is, as stated by Karatepe and Kilic (2015), most effective during the withdrawal phase; and importantly, prior to the event of formal submission of a resignation. Leader acknowledgment and understanding of this phase is crucial to reducing turnover rates and the implications associated. Unfortunately, the high volunteer-worker turnover rates within Fire and Emergency New Zealand remain (NZFS, 2015), and additional information on the factors influencing turnover intention is required. A potential starting point for leaders to mitigate voluntary turnover and the associated costs may include the preventative measures (Waribugo & Dan-Jumbo, 2017)

of on-going worker development programs, effective performance review processes, and leadership training initiatives, particularly for senior leaders and decision-makers.

The Cost of Firefighter Turnover on Fire and Emergency New Zealand. The adverse impacts of voluntary turnover on an organization are experienced, according to Tracey and Hinkin (2008) through the five major cost areas of predeparture, recruitment, selection, orientation, and lost productivity. The cost of volunteer firefighter turnover has significant ramifications for Fire and Emergency New Zealand and can go beyond monetary value and losses. Many volunteer fire service brigades do not have the resources, mandate, or ability, to pay volunteers as an incentive for retention (USFA, 2015), nor is it part of the tradition and culture.

In general, only 33% of volunteers make the commitment to an organization to serve beyond 1 year (Laddha, Singh, Gabbad, & Gidwani, 2014; Volunteering New Zealand, 2017). Because of the non-committal nature of some volunteers, and increasing demands from work and family life, the increased turnover within a volunteer fire brigade, area, or region, negatively affects the financial and legislative sustainability of the service to communities. Brigades that experience a high volunteer firefighter turnover rate expend more cost because of the additional recruitment, selection, onboarding, training, and personal protective equipment costs. The amount to outfit and train a firefighter equates to NZ$50,000 (NVFC, 2016), and the cost, on average, to replace five professional firefighters is approximately NZ$135,000 (Laddha et al., 2014). While this cost is high, the impact becomes greater as numerous other factors and costs further affect a brigade.

The actual cost of voluntary turnover in the workforce can, in many cases, exceed the direct financial impact. Organizations that experience a high rate of turnover become increasingly vulnerable to the loss of intangible assets such as organizational knowledge, subject-matter expertise, and mentoring support, and have weaker organizational cohesion than those organizations with lower rates of turnover (McBride & Lee, 2012). As stated by Wang et al. (2014), voluntary turnover can also lead to the remaining volunteers feeling demoralized and left wondering what the future of the brigade will be, contributing to others leaving; this phenomenon can negatively affect the beneficiaries that the organization serves. Voluntary turnover is also a significant factor, and increasingly so, that contributes to declining productivity and poor morale in the workplace (Qazi, Khalid, & Shafique, 2015). High turnover, and the intention or perception of other workers and volunteers of high turnover within an organization, can be damaging to the organization's reputation (Huffman, Casper, & Payne, 2014); particularly for the fire service where reputation and trust are crucial factors for active personnel who require permission to access public and private properties.

Tenure-Turnover Relationship. At the earliest stages in a worker's tenure, turnover rates tend to be quite low. However, as information and experience are acquired by the worker, turnover rates start to increase, peaking in years 1 and 2 of service and then declining thereafter (Whitaker, 2014). One theoretical perspective provides an explanation as to why turnover rates tend to be low initially, then peak, and eventually decline: the attraction–selection–attrition model (Butler, Bateman, Gray, & Diamant, 2014), describes how applicants are drawn to organizations where they perceive a good

fit with the culture and values. Over time, recruits gradually learn whether they intrinsically share the values of the organization and their workgroup, unit, or department; if they possess the skills required to complete critical tasks, and; if they appreciate the rewards derived from the job (Kemery, Dunlap, & Bedeian, 1989). Those who do not perceive a good fit will exit early in tenure (Whitaker, 2014) when the misfit is most readily apparent.

Volunteerism

Volunteering positively contributes to the well-being of the individual, community, organization, and society. Volunteering is work done of one's own free will, unpaid, for the common good (Volunteering New Zealand, 2017). Many nonprofit organizations achieve their vision, mission, goals, and objectives through a volunteer workforce (Davila, 2018; Omoto & Packard, 2016; Paco & Nave, 2013). The engagement of volunteers in nonprofit organizations is valuable for society because individuals from varying backgrounds expand the quality, quantity, and diversity of services (Christoph, Gniewosz, & Reinders, 2014), without the increased expense of an employed, paid workforce.

Even with the high number of volunteers engaged in voluntary activities across the world, researchers have suggested that the available pool of volunteers may be decreasing because of increasing demands of longer working hours, everyday life and families, and an increasing retirement age (Raymond, 2016; Smith, 2014; Stukas, Snyder, & Clary, 2016) While the available volunteer workforce is decreasing, the demand for volunteers is increasing. This demand may be as a result of an increase in the number of

social causes and service organizations wanting volunteers, which is straining the already sparse volunteer resources further (Henderson, Van Hasselt, LeDuc, & Couwels, 2016). An increase in demand, and the decrease in availability of volunteers, may force organizations to adapt, and bring about a number of changes for the nonprofit sector (Stukas et al., 2016), especially in the recruitment, onboarding, training, and retention spaces.

Volunteerism in New Zealand. New Zealand is a leading nation in the contribution of time made by volunteers per capita (Volunteering New Zealand, 2017), and this unpaid workforce plays a vital role in the country's nonprofit sector. A 2008 study of the sector estimated volunteers comprise two-thirds of the nonprofit sector workforce in the country (Sanders, O'Brien, Tennant, Sokolowski, & Salamon, 2008). Figures from Statistics New Zealand showed that volunteer labor contributed $3.5 billion (1.7%) to New Zealand's gross domestic product for the year ended March 2013 (Volunteering New Zealand, 2017). In 2015, Volunteering New Zealand carried out a national survey on the state of volunteering in New Zealand; this survey found that recruiting volunteers was challenging for the majority of respondents, with 55% having stated they experienced challenges within the previous 12 months (Volunteering New Zealand, 2017). Retaining volunteers was less of an issue for volunteer-involving organizations, with 65% of leaders expressing they were not experiencing such challenges (Volunteering New Zealand, 2017); however, the trend of volunteer-involving organizations facing more complex challenges with retention, is increasing.

Episodic Volunteering. Fire and Emergency New Zealand relies on the on-going, semipermanent commitment of volunteers. In New Zealand, many volunteer organizations observed that volunteers are looking for short-term commitment, and some organizations have moved toward project-based volunteering with much success (Volunteering New Zealand, 2017). Handy, Haski-Leventhal, and Hustinx (2008) have identified several factors that influence the growing trend in shorter-term episodic volunteering, including women joining the labor force, more-frequent changing of jobs, changes in employer-employee relations, and globalization, with rapid access to information through the internet. These factors result in more people seeking short-term experiences (Handy et al., 2008) that can fulfill their perceived needs in a greater and more timely way.

Contrasts between Paid Employees and Volunteers

Volunteers and paid employees are different, with the roles of volunteers being diverse, and not necessarily distinct from the roles of paid workers. Volunteers, as stated by Bittschi, Pennerstorfer, and Schneider (2015), could either be complementary, or a substitute, for paid employees. In the first case, paid and unpaid workers assume different tasks within the organization; whereas in the second case, paid employees and volunteers perform similar duties so that volunteers can basically replace paid staff, or vice versa. The latter notion of substitution is primarily observed in Fire and Emergency New Zealand (NZFS, 2015) with paid and volunteer firefighters trained to a similar level, with the same training modules.

Organizational leaders should acknowledge that there are differences between paid employees and volunteers, and that various factors exist to affect the attitudes of paid employees: financial security, pay, and advancement opportunities (Bittschi et al., 2015). Such factors do not necessarily apply to volunteers (Bittschi et al., 2015). Scholars have drawn comparisons (Bittschi et al., 2015; Butrous & McBarron, 2011; Fallon & Rice, 2015) of the effect of worker development on staff retention between paid employees and volunteers. The identification and analysis of effects provide a unique point of departure in comparing the two perspectives of human capital development and social exchange.

Diverse personal and social motivations are served by volunteering, and volunteer behaviors typically depend on an interaction of person-based dynamics and situational opportunities (Butrous & McBarron, 2011). In contrast to paid employees within an organization, volunteers make up a distinct group because they do not receive remuneration in return for their service. Consequently, volunteers cannot be effectively attached to the organization on the basis of financial incentive (Laczo & Hanisch, 1999). Such attachment to an organization on a financial basis, presents leaders with challenges and opportunities.

Key Differences of Volunteers. For volunteers, the reward experienced in exchange for service input may come from formal and informal recognition offered by a leader, or the organization. This recognition may be represented by a personal thank you from a leader for a good job, or appreciation from others through acknowledgment within

the community (Laczo & Hanisch, 1999). Given that paid employees frequently quit in instances where they feel undervalued (Laczo & Hanisch, 1999), the recognition experienced by both paid employees and volunteers becomes of great importance in their ongoing commitment to the organization (Bittschi et al., 2015). As such, in comparison to paid employees, volunteers are more likely to engage in social exchange with the organization; that is, labor provided in return for recognition and social connection (Chum, Mook, Handy, Schugurensky, & Quarter, 2013). For volunteers, investment in their development by the organization may be viewed as part of the recognition they receive and may potentially increase a volunteers' perception of organizational support (Baran et al., 2012). In comparison, paid employees are more likely to remain with the organization in the context of generating income and employability across a range of labor markets (Chum et al., 2013); such factors are consistent with the human capital development approach.

As volunteers do not draw an income from their involvement with the organization, it is much less costly for them to quit than it is for a dissatisfied paid employee (Chum et al., 2013). Given the contrasting context within the organization in which paid employees and volunteers work, differences in job attitudes between volunteers and paid staff can be significant. Further, in comparing workforce job attitudes within a charitable organization, Naoum (2014) reported different organizational experiences between volunteers and paid employees. Similarly, Fallon and Rice (2015) reported that volunteers were more likely to be satisfied in their role and intend to stay with the organization when they experience rewards of social interaction, service to

others, and praise-worthy work. Differences in the work motivations of paid employees and volunteers have implications for managing workforce satisfaction and retention; for volunteers, connection with others and experiences of care may be of the utmost importance (Applebaum, Degbe, MacDonald, & Nguyen-Quang, 2015), while for paid employees, the ability to make change and choices for oneself may best determine job satisfaction and retention.

Generational Factors

Generational influences are a continuing concern, and an area of opportunity, in emergency services. Generations are specific groups of individuals with similar ages and experiences (Costanza, Badger, Fraser, Severt, & Gade, 2012). Today's workforce is multigenerational, which poses a challenge for some business managers to motivate and connect younger and older workers within the organization's workforce (Dwyer & Azevedo, 2016). If leaders were to have a more in-depth understanding of generational differences, and how a multi-generational workforce can collaborate within an organization, improvements in retention can be realized (Riggs, 2017).

To reinforce the need and importance of leaders understanding generational differences between followers, Cogin (2012) concluded that conflicts exist between younger and older workers because of differing perceptions of the other's work-life balance, personas, and work ethics; however, these conflicts that can be minimized with a positive and accepting organizational culture. Placing volunteers and employees in generational categories and collecting data on the challenges and opportunities experienced and perceived, may provide leaders with a tangible means to understand age-

specific concerns and patterns (Pritchard & Whiting, 2014). Leaders are then encouraged to collate the data, seek to understand the patterns, and strategize ways to improve cohesion and collaboration across the organization.

Mature Generation. The mature generation, in general, are people that were born before 1945, or commonly, the end of World War I (Cogin, 2012). Another name that this generation is referred to, is Traditionalists (Lyons & Kuron, 2014). This generation, on average, chose to receive less-formal education through schools, colleges, and universities, and tend to be more conservative than later generations (Costanza et al., 2012). Individuals from the mature generation were found by Lyons & Kuron (2014), to have higher levels of commitment to organizations compared with individuals of other generations. The retention issues that organizational leaders face with the mature generation are age-related (Lyons & Kuron, 2014), with declining health that can limit work efficiency.

Baby Boomers. Baby boomers are people born between 1945 and 1964 (Tourangeau, Wong, Saari, & Patterson, 2015). The two-thirds of volunteers that return for the second year of service are primarily from the baby boomer or mature generation (Cogin, 2012). Baby boomers were found by Lyons and Kuron (2014), to feel more comfortable working with others, and, in general, have a preference to working in a team when compared to those in more recent generations. If baby boomers perceive inadequate or inconsistent leadership, they are likely to leave an organization (Tourangeau et al., 2015). Furthermore, McBride and Lee (2012) discovered that, when directly compared to

the mature generation, baby boomers are more likely to remain in a volunteer role beyond the current New Zealand retirement age of 65.

Generation X. Generation Xers are people born between 1965 and 1979 (Lyons & Kuron, 2014). Individuals within this group feel a greater sense of independence, are more competitive, and portray higher self-reliance when directly compared to the baby boomer generation (Lyons & Kuron, 2014). In contrast to the baby boomers, and perhaps at odds with the philosophy of the fire service, generation Xers have a greater preference for working by themselves, as opposed to working as a team (Costanza et al., 2012). Schullery, (2013) discovered that generation Xers have a low preference of commitment to an organization when directly compared to older generations. There is also a trend of decreasing loyalty for organizations among generation Xers, compared to older generations, and such a decrease may be linked to the aforementioned phenomenon of episodic volunteering.

Millennials. Millennials are people born in 1980, or after (Tourangeau et al., 2015). Another name for the millennial generation is generation (or gen) Y (Lyons & Kuron, 2014). Retention among Millennials is lower than that of older generations (Costanza et al., 2012); likely linked to the current trend where young volunteers are looking for short-term commitments (Volunteering New Zealand, 2017). Some organizations were found in a study by Lyons and Kuron (2014), to invest large amounts of capital, time, and resources to increase the retention rates of Millennials, though found that such projects proved unsuccessful because of a lack of recognition and knowledge held by leaders for generational differences.

Individuals of more recent generations, in general, lack time or interest in on-going volunteer service (Cogin, 2012). Rogers, Rogers, and Boyd (2013) found that Millennials will have employment in seven different organizations over a 10-year span because individuals in that generation place a higher value on work-life balance, and will be more inclined to choose lifestyle over career progression (Guha & Chakrabarti, 2015). With an aging workforce (Lyons, Schweitzer, Ng, & Kuron, 2012) and increasing demand for emergency services (NZFS, 2015), effectively recruiting and retaining this generation is critical for the fire service's on-going sustainability.

Generations in the Workplace. The differences between generations in the workplace can impact on job satisfaction, organizational commitment, leadership styles, and retention rates (Thomson, 2014). General traits attributed to those individuals in the Millennial generation, included that they are entitled, optimistic, civic-minded, have close parental involvement, value work-life balance, are impatient, can multi-task, and are team oriented (DeVaney, 2015). The traits attributed to other, older generations, according to DeVaney, present real contrasts and areas for misalignment and confusion. For example, general traits attributed to Generation X individuals, include that they are self-reliant, adaptable, cynical, distrusting of authority, resourceful, entrepreneurial, and technologically savvy. General traits attributed to those individuals in the baby boomer generation, include they are workaholics, idealistic, competitive, loyal, materialistic, seek personal fulfillment, and value titles and the corner office. The general traits attributed to individuals in the mature generation include that they are patriotic, dependable, conformists, respect authority, rigid, socially and financially conservative, and have solid

work ethics (DeVaney, 2015). I have noted that some of these general traits complement other generations, though many are opposites or in conflict with others. Notable examples of this are where Generation Xers are distrusting of authority, and matures respect authority, and where millennials value work-life balance, and baby boomers can be workaholics.

The current four categories of generations in the New Zealand workforce are matures, baby boomers, generation Xers, and millennials. Volunteer leaders face increasingly complex challenges with managing early career, middle-aged, and young volunteers differently, compared to previous generations (Lyons & Kuron, 2014). The identification of tenure and age factors can have significant impacts on an organization and workforce if leaders can effectively interpret the limitations and opportunities therein.

Barriers to Retention

In this section, I discuss barriers that are experienced by volunteer firefighters in remaining in their role and organization. Individuals may experience one or more of the following challenges prior to, or during, their voluntary association with an organization. Leaders should acknowledge the barriers discussed and develop strategies to minimize the negative impacts that volunteers experience.

Work-Life Balance. Work-life balance is a challenge in any industry, sector, or organization. For firefighters in the high-stress environment in which they work, additional training hours for certification, high and increasing call-out volumes, and pressures from family and friends, all put strain on retention rates (NVFC, 2016). The

significant and on-going societal shift from single-to-dual earning households across the developed world, is also a contributing challenge of work-life balance for volunteer firefighters with more pressures on generating income (Deery & Jago, 2015; Melo, Ge, Craig, Brewer, & Thronicker, 2018; NVFC, 2016). Cowlishaw, Birch, McLennan, and Hayes (2014) identified that the inability of some individuals to effectively balance volunteer and family commitments, was a common factor for the decline of volunteers in emergency services.

Balancing the demands from family, alongside their voluntary role obligations, puts volunteers at greater risk of experiencing burn-out (Ching-Fu, & Yu, 2014). Burn-out of a volunteer greatly impacts the individual's personal and work-life, increasing the tension between voluntary service and paid work. The demanding job requirements of a volunteer firefighter directly interferes with the individual's family time because of the nature and timing of call-outs, and can become a stressor (Deery & Jago, 2015). Inconsistent, complex, and long work-hours contribute to stress and fatigue (Huynh, Xanthopoulou, & Winefield, 2013). The emergency call-outs that firefighters respond to are unpredictable, and can take large amounts of time away from scheduled, personal engagements (Huynh et al., 2013). These time conflicts that volunteers experience between home and service-life, as found by McNamee and Peterson (2015), can increase the likelihood of voluntary turnover.

Deery and Jago (2015) concluded that stakeholders of an organization with large workloads, who cannot balance the role requirements of the organization with those of a family, experience emotional exhaustion and this negatively impacts organizational

sustainability and readiness (Ching-Fu & Yu, 2014). As the demands that organizations place on volunteers increases, the voluntary workforce is put at higher-risk of experiencing negative, long-term psychological and physical effects (Deery & Jago, 2015). Women without children at home, and younger adults, experience significantly less-negative work-family challenges than any other demographic (Ching-Fu & Yu, 2014).

Sleep Deprivation. Firefighters are exposed to the stressor of sleep restriction on a regular basis from emergency call-outs (Virtanen, Stansfeld, Fuhrer, Ferrie, & Kivimäki, 2012). Sleep restriction and deprivation occur because volunteer firefighters attempt to balance their paid employment and family-life, alongside a significant amount of time training for emergency scenarios, and attending emergency situations (NVFC, 2016). Longer working hours, as experienced by firefighters, can increase the risk that an individual will experience sleep disturbance and long-term psychological distress (Cvirn et al., 2015). The resulting negative effects of sleep deprivation extend beyond the volunteer's performance within the brigade, and into the individual's personal and home-life.

Sleep deprivation for firefighters is commonly a result of a firefighter being woken to attend an emergency during the night (USFA, 2016). This has negative impacts on the retention of all emergency services volunteers and professionals (Blau, 2011). Volunteer firefighters were found by Cvirn et al. (2015) to report sleep loss, on average, of 3 to 6 hours during the nights when they were responding to emergencies. Blau (2011) also found other contributing factors that lead to sleep deprivation: exposure to disease

and abnormal ailments, trauma, and task-related injuries. Jay, Smith, Windler, Dorrian, & Ferguson (2016) agreed with the conclusions of Blau (2011) and Cvirn et al. (2015), finding that non-regular and inadequate sleep also leads to decreased effectiveness and efficiency, and impacts the safety of volunteer firefighters and those in the communities they serve.

Mental Health. The job functions that are specific to firefighters, according to Huynh et al. (2013), can have significant impacts on the psychological well-being of volunteers. The job demands of volunteer firefighters include the witnessing of death, disaster, and destruction; alongside risking their own health and safety (Henderson et al., 2016). Repeated exposure to such traumatic events, is a key risk factor for substance abuse among firefighters, and mental disorders (Huynh et al., 2013). Extreme psycho-social demands (Harvey et al., 2015) can lead to increased volunteer turnover, and mental health issues, among volunteer firefighters.

Since 2013, researchers have increased efforts to produce studies that focus on the impact of mental health issues in fire services. Mental health issues in the fire service is a phenomenon that can affect members in any fire brigade, at any time (Gulliver et al., 2015). Several studies have focused on the impact of stress in firefighters' lives. Finney, Buser, Schwartz, Archibald, and Swanson (2015) supported and reinforced by Henderson et al. (2016) and Kim et al. (2018), found that the high levels of occupational and traumatic stress that firefighters face, contribute to post-traumatic stress disorder, depression, and substance abuse.

The proportion of mental disorders and substance abuse experienced by firefighters is considered very high (Jahnke et al., 2012). More than a third of volunteer firefighters have reported concerns of depression for one's self and others (Harvey et al., 2015). There is a general reluctance, as concluded by Hom, Mitchell, Lee, and Griffeth (2012) for firefighters to seek mental health treatment, which is similar to other male-dominated occupations. Firefighters who experience mental health issues that go untreated, according to Jahnke et al. (2012), are more likely to leave the fire service, choose to intentionally miss emergency call-outs, and feel higher levels of suicidal thoughts.

Firefighters with longer years of service, were found to be more likely to seek mental health services to deal with on-the-job stressors than newly recruited firefighters with three years of experience, or less (Gulliver et al., 2015); this situation suggests the notion that length of service and retention are important for firefighters' sustainability and mental health. Hom et al. (2012) found that volunteer firefighters are less likely, compared with professional firefighters, to seek mental health services. This rate of suicide in the firefighting occupation is three times more likely to occur when compared to other emergency service and private occupations (Gulliver et al., 2015). Jahnke et al. (2012), explored the low-seeking of mental health services by volunteer firefighters, concluding that firefighters feel uncomfortable speaking to outside professionals because they are perceived to lack in-depth understanding and empathy of their, sometimes extreme, experiences.

Job Satisfaction. Volunteer firefighters, compared with professional firefighters, expressed lower levels of job satisfaction (McBride & Lee, 2012). Iqbal and Hashmi (2015) reported that only 38.5% of volunteer firefighters surveyed reported high levels of job satisfaction, with the job duties of volunteers greatly affecting retention. Employees that do not find work satisfying, are more likely leave the organization for a better opportunity (Jahnke et al., 2012). Those volunteers in older generations that feel ineffective achieving organizational goals, according to Jahnke et al. (2012), are more likely than younger generations to leave the organization.

Public sector employees were found to have a lower level of job satisfaction compared to those in the nonprofit or private industries (Jernigan & Beggs, 2015). McBride and Lee (2012) indicated that elected officials, frequent criticism from media, and community groups, were reasons for the lower levels of satisfaction among public sector stakeholders. Ineffective leadership and leadership styles can also impact the level of job satisfaction a volunteer perceives (NVFC, 2016), and the retention rates among volunteer firefighters.

Retention Issues Specific to Female Firefighters. The fire service is classified as a male-dominated field (Waters & Bortree, 2012); however, in general, women volunteer more than men by a ratio of three-to-one (Johnson & Tunheim, 2016), creating an opportunity for the fire service to recruit and retain more volunteers. This three-to-one ratio, however, does not hold true for Fire and Emergency New Zealand, with only 14% of volunteer firefighters, and just 3% of professional firefighters, being female (NZFS, 2015). Organizational leaders, therefore, need to examine successful methods to retain

female volunteers, because the barriers that women face are specific and diverse (Sinden et al., 2013). Waters and Bortree (2012) identified that organizational leaders who develop effective strategies to retain women in organizations, are taking a key step to maximize human capital, and will be more adept in identifying the strongest pool of candidates for mid-to-senior leadership positions.

A significant barrier for female firefighter retention, is negative attitudes of male colleagues toward female firefighters (Poston et al., 2014). Judgmental comments, expressing superiority, and dissent toward women by male counterparts, can cause women to develop perceptions of a negative working environment, and affect the individual's job satisfaction (Poston et al., 2014). Researchers (Jahnke et al., 2012; Poston et al., 2014), also discovered that discrimination for, and among, female firefighters, can negatively affect mental health and satisfaction, lowering retention rates. Poston et al. (2014) concluded that an urgent need exists to continue, and prioritize, research on gender disparities in the fire service, because of the significantly higher intention for women to volunteer, as well as the impact on recruitment and retention.

Strategies to Reduce Volunteer Turnover

For both male and female volunteers, work-life balance is critically important for social, emotional, and physical health. One suggestion from Huynh et al. (2013), was that organizational leaders can reduce the challenges their volunteers face with work-life balance, by developing the desired culture through creating policies and strategies that foster a family-friendly environment. Volunteer firefighters who have their family and friends welcomed into a brigade, and who therefore receive higher levels of support and

encouragement from family and friends to be involved in the fire service, have their risk of burn-out reduced (Huffman et al., 2014). The reduction of burn-out has positive implications for the fire service, the brigade, the individual's family unit, and the wider community.

Developing strategies that benefit the volunteer's family directly, can improve family support and increase retention and work-life balance (Huynh et al., 2013). Examples from Huffman et al. (2014) of efforts that successful organizations have used to engage with family for volunteer retention, were to host social events that were family-friendly and inclusive; create new orientation programs that included family members; highlight non-wage benefits and programs that directly benefit the family, and; distribute satisfaction surveys to volunteers' partners to identify areas of challenge, success, and opportunity (Huffman et al., 2014). As Barker (2014) explained, by having a loving and supportive family, volunteer work can be pursued, despite the inconveniences. It is the family unit of a volunteer that influences future career and voluntary decisions, through encouragement or discouragement (Huffman et al., 2014). Such an influence from a family can be positively encouraged if organizational leaders make a concerted effort to acknowledge and value the importance of a volunteer's family unit, and understand the positive outcomes that can be generated as a result.

Recruitment. Recruiting more volunteers is a supplementary strategy for establishing a positive work-life balance in a fire brigade, because a larger workforce can relieve the conflicting demands that affect volunteers (Christoph et al., 2014). An effective recruitment program that reduces turnover rates among new volunteers, focuses

on individuals with altruistic drivers (Christoph et al., 2014). Targeting recruitment to young adults with a history of voluntary work in high school or college, can increase pro-social behaviors and lead to improved retention rates (McBride & Lee, 2012). Individuals from earlier generations who have a history of volunteering, according to Mano & Giannikis (2013), are more likely to remain engaged and committed to the organization for a longer term. Additionally, people with higher levels of education, namely bachelorette and master's degrees, are more likely to remain engaged with the volunteer organization (McBride & Lee, 2012), than individuals who completed a lower level of education.

To better understand the short and medium-term effects of recruitment on the level and timing of a worker's departure, a turnover model was created by Jordan, Gabriel, Teasley, Walker, and Schraeder (2015) that incorporated *dynamic predictors*. Results of a large, longitudinal sample that contained both leavers and stayers, indicated that the risk of voluntary turnover for workers recruited through personal recruitment sources (friends or family) was lower, early in a worker's tenure, opposed to workers who were recruited through formal channels; however, the effect of the recruitment channel on the risk of turnover was somewhat mediated as a result of job satisfaction. The pattern that the researchers observed, according to Jordan et al. (2015), expands on the unfolding model of turnover.

Physical Wellness. Jahnke et al. (2012) found that only 10% of volunteer firefighters were able to meet the recommended tests to be eligible for role retention; therefore, there is an evident need to increase the physical fitness among volunteers

(Jahnke et al., 2012). Of those involved in the study, only 10% of female volunteer firefighters rate themselves as having excellent health (Jahnke et al., 2012). To improve volunteer firefighters' health and fitness for increased retention, fire service leaders can offer firefighters free access to work-out and gym equipment, outside of service hours with formal and regular training programs (Perroni, Guidetti, Cignitti, & Baldari, 2014).

According to Perroni et al. (2014), firefighters who train at gyms located inside, or near to, a fire station, make significantly better health, fitness, and social improvements, compared to those who have to travel to fitness centers, or who work-out alone. Based on their job demands, workout programs that primarily focus on high-intensity circuit and cardiovascular training, prove to be the most effective for firefighters (Jahnke et al., 2012). Establishing, implementing, and maintaining specified programs and opportunities for firefighters to focus on their mental, emotional, and physical well-being, has wide-ranging positive effects that extend beyond involvement in the fire service and local brigade.

Training. Training is a critical element of a successful volunteer program (Biron, Farndale, & Paauwe, 2011). By providing training to volunteers, those individuals can attain additional skills that are used within their voluntary role, and in their everyday lives. Once volunteers have been recruited to the organization, leaders should commence specific training for the role assigned to the volunteer, as soon as practicable (Holmgren, 2016; Wang et al., 2014). Leaders should also provide the support required to understand responsibilities, and the individual's place in the organization (Wang et al., 2014). A formal orientation program that is linked to training, as well as a peer-support system, can

garner positive and beneficial outcomes for satisfaction (Biron et al., 2011) and increase retention among workers.

Training and Satisfaction. Volunteers who are appropriately trained, understand their role, and can identify their contribution to the organization, will experience more satisfaction (Wang et al., 2014). Training also assists in sensitizing volunteers, increasing motivation for the organizational mission, and increasing retention rates (Wright, 2013). Training helps volunteers to learn about the culture, values, and codes of conduct of an organization, creating alignment with personal drivers. Wright (2013) suggested training, and the use of veteran volunteers in training and supervision, were critical to improving tenure, satisfaction, and productivity of a volunteer workforce. In addition, the implementation of policies that are specific to volunteers, and the creation of a training manual (Wang et al., 2014) are necessary to maintain satisfaction and retention of volunteers, and can assist volunteer leaders in their role.

Resourcing Training Initiatives. Some organizations do not always provide the necessary training to teach their volunteers the required skills to be successful in their job tasks. Volunteer leadership requires specific skills, and organizations should adequately support volunteer leaders with appropriate tools and knowledge (Brock & Herndon, 2017). A volunteer leader who is designated to train volunteers, should be trained first (Deery & Jago, 2015). Unfortunately, formal and specific education in volunteer engagement or management is not part of the educational training for most organizational staff (Deery & Jago, 2015). Perroni et al. (2014), in their research about volunteering, recommended that organizations provide basic training, or specific preparation, for jobs

to be held by volunteers, including skills, knowledge, processes, and procedures required for the task, or tasks.

The Cost of Training Volunteers. The high cost of quality volunteer training (Howard & Digennaro Reed, 2015) can be a barrier for organizations in establishing training programs. Implementing training on a personal, one-on-one basis, provides positive results, though can be a strain on limited organizational resources (Howard & Digennaro Reed, 2015). In the absence of literature describing cost-effective, empirically supported training strategies (Rugmann, 2016), leaders may be ill-equipped to assist the volunteers they manage to effectively learn job tasks (Brock & Herndon, 2017). As a result, volunteers may be assigned tasks that require minimal training, or tasks that are irrelevant to the mission and goals of the organization, potentially leading to higher rates of volunteer turnover.

Onboarding and Expectations. Organizational climate and commitment can have significant impacts on volunteer retention (Jun-Cheng, Wen-Quan, Zhao-Yi, & Jun, 2015) if leaders are either effective or ineffective in setting expectations. The highest risk of turnover for new volunteers occurs during the first 3-to-6 months of onboarding (Wang & Bowling, 2016). If volunteer leaders guide recruits through an initial orientation and training, higher retention can be achieved (Rugmann, 2016). According to Tourangeau et al. (2015), Millennials prefer strong leadership where expectations are set, accountability is given, and role-specific, ongoing support is provided.

Another method for engaging with recruits, is to promote appropriate levels of socialization in the service (McBride & Lee, 2012). Promoting socialization can include

such approaches as engaging new members in training; developing a formal and personalized mentoring program; including all members in social events; providing an overview of the organization's goals, mission, and objectives, and; how the recruit can contribute to achieving the set goals (Andrews, 2016). Fostering acceptance from peers that further engages volunteers (McBride & Lee, 2012) is also important for volunteer retention.

New Recruits. In an increasingly competitive voluntary sector (Volunteering New Zealand, 2017), newly recruited volunteers who lack, or lose, satisfaction with an organizational climate and culture, are more likely to seek volunteer opportunities elsewhere and leave the organization sooner (McBride & Lee, 2012). The experiences that a new recruit faces, and is provided with, in the initial months on engagement, are major factors in determining their retention, turnover intention, and commitment to the organization in both positive and negative ways (Smith, Amiot, Callan, Terry, & Smith, 2012). Low retention rates of new volunteers (sub-6 months of involvement), places a financial burden on an organization (Smith et al., 2012). The highest risk, and rate, of turnover among new recruits, occurs during the first 3 to 6 months of engagement with an organization (Memon et al., 2016), and that timeline begins when the volunteer accepts a position, not their first day on the job.

According to Smith et al. (2012) the organizational commitment that a new recruit and existing worker experiences is related to how strongly the individual identifies with the organization; how involved and engaged the individual is with the organization, and; the individual's want to stay connected to the organization. The timelier, and to the

greater extent, the individual identifies with the social group of volunteers, the lower the risk of turnover (Smith et al., 2012). The sense-of-community, or indeed, loss-of-community feeling, that a newly-recruited volunteer firefighter perceives within a brigade, can also affect retention rates (NVFC, 2016). Fire service leaders should focus on creating an environment that welcomes families into a community that supports each other.

Job Satisfaction. Job satisfaction is crucial for volunteer retention (Zurlo, Pes, & Capasso, 2016), as many volunteers are motivated by personally intrinsic factors. Organizations that meet the individual needs of their workforce through practices that directly enhance the satisfaction of volunteers, reap the highest rates of retention (Fallon & Rice, 2015). Creating an organizational environment and culture that seeks to promote individual job satisfaction, can lead to increased levels of volunteer retention (Iqbal & Hashmi, 2015; Kolo, 2018). Leaders who allow volunteers to have a higher-than-normal amount of control in how they perform job duties and achieve targets, create an organizational culture that has more satisfied workers (Paull & Omari, 2015), creating a climate of responsibility and trust.

The Impact of Negative Culture. Negative workplace cultures can significantly minimize volunteer retention (Bowling, Khazon, Meyer, & Burrus, 2015). Poor organizational reputation as a result of negative workplace culture, leads to minimized job satisfaction, and is a factor that increases volunteer disengagement (Schullery, 2013). Brigades, watches, and organizations, can develop a poor reputation from leaders failing to address non-appropriate workplace conduct, leading to reduced volunteer satisfaction.

Leaders can reduce negative workplace cultures by developing and implementing policies that outline acceptable and non-acceptable behaviors, ensuring that consequences are explicit and followed through on (Bowling et al., 2015). Mentoring programs were found in a study by Tourangeau et al. (2015), to help in reducing negative workplace cultures that hinder retention.

Volunteer Leaders' Contribution to Job Satisfaction. Proactive, effective, and efficient leadership is key for recruiting and retaining volunteer firefighters (USFA, 2007). Volunteer leaders play a significant role in the satisfaction that volunteers experience. Support and recognition are strong predictors of job satisfaction for volunteers, and may be key motivators of volunteers' ongoing commitment to the organization (Bowling et al., 2015). The perceived satisfaction of a volunteer toward their leader, can provide predictive rates of successful retention (McBride & Lee, 2012). Retention rates, and the commitment a volunteer expresses toward the organization, are higher when individuals feel and perceive that leaders have a genuine concern for their, and others, welfare (Iqbal & Hashmi, 2015), and appreciate the efforts of the volunteer workforce.

An analysis by Fallon and Rice (2015), indicated that a central feature of the volunteer leader's role that distinguishes it from the private sector's standard managerial role, is that volunteer leaders supervise an unpaid workforce, with such consequence that they cannot leverage money as a source of reward and coercive power. Instead, leaders trade on their legitimate, referent, and expert power to form trusting, personal relationships with volunteers (Fallon & Rice, 2015). Such relationships are demonstrated

by the leader's deep and detailed knowledge of each volunteer's background and current life situation (Bang, 2015). In turn, Fallon and Rice (2015) found that volunteers perceive their leaders to have superior knowledge and skills that warrant respect and admiration, have the right to make requests of them, and are more satisfied in their role, with their leader, and with their organization.

Organizational leaders should seek to understand how the empowerment of followers can lead to increased motivation, a more inclusive culture, and higher retention rates of volunteers (Iqbal & Hashmi, 2015). Sheth (2016) concluded that, to increase retention in a workforce, organizational leaders need to understand, and importantly, accept, the psychological contracts that are consciously or unconsciously made between themselves and followers, and ensure that any agreed or perceived expectations are satisfied. Engaging with, training, and providing on-going development for an organization's leadership to empower the voluntary workforce and promote satisfaction, can lead to significantly higher levels of engagement (Sheth, 2016) and increase retention in the workplace.

Non-wage Benefits. Non-wage benefits are among the higher motivators for worker retention (Kim & Fernandez, 2017). Some common examples of non-wage benefits are allowances or subsidies to housing, recreation, and medical costs (Kim & Fernandez, 2017). Environmental factors, such as culture, support, and leadership, are also significant non-wage benefits that contribute to higher levels of job satisfaction and retention (Kim & Fernandez, 2017). Through offering flexible schedules and a family-friendly work environment, organizations can increase members' job satisfaction

(Schullery, 2013). Additionally, organizations that offer training opportunities which contribute to personal and professional development, have higher rates of job satisfaction and retention among volunteers (Cowlishaw et al., 2014; Mandhanya, 2015), compared with those organizations that do not have the same personal and professional development offerings.

Regarding specific drivers for retaining Millennials and Generation Xers – the future workforce of both for and nonprofit organizations (Schullery, 2013) – creating a fun environment where there is flexibility, team-building opportunities, and work-life balance, is a significant non-wage benefit that has been successful for increasing engagement in the generations (Mandhanya, 2015). Examples of efforts that successful organizations use to retain Millennials and Gen Xers, include adding rock-climbing walls, volleyball pits, on-site pool tables, and hosting sports leagues for members (McBride & Lee, 2012). One limitation for creating a fun environment for volunteer retention in the more recent generations, is that older generations of baby boomers and matures with limited financial resources, experience higher motivation from stipends (Schullery, 2013), as opposed to environmental factors.

Appreciation and Rewards. Volunteers can be taken for granted. Several researchers and studies (Connors, 2012; Kramer, 2011; Recognising volunteers, 2018; Rowley, 2012) have noted that rewards bring satisfaction to volunteers, and benefit organizations in many different and sustainable ways. Rowley (2012) stated that acknowledging volunteers' work, commitment, and dedication, will improve the individual's confidence and increase their commitment to the program, task, or role.

Improved confidence and increased commitment can have significant, positive outcomes for the individual and for society. Kramer (2011) recommended that organizational leaders can express gratitude and appreciation to volunteers by conducting a positive evaluation on the volunteer, and through personalized letters or tokens of appreciation. In addition, Kramer shared that volunteers, to feel included and acknowledged for their contribution, must receive some form of appreciation and reward for the work they do. An appreciation award (either formal through a gala or special evening, or informal at a team meeting) is one way to recognize volunteers' efforts and thank them for their invaluable involvement in the organization, and contribution to the vision, mission, and community.

Performance Management. Performance management can drive volunteer satisfaction, value perception, and aide in volunteer retention within an organization. In an organizational context, performance is defined as *the efficiency of actions*, which is how organizational resources are consumed to produce value (Abdolvand, Albadvi, & Aghdasi, 2015). For Fire and Emergency New Zealand, effectively allocating resourcing, and providing value to communities (NZFS, 2015), are key considerations for the public-service and public-funded organization.

Performance management is a process whereby volunteers agree to set goals with their leader, and support is given to achieve the goals (Wright, 2013). According to Dekker, Rong, and Groot (2016), there is a necessity to develop a system of personnel performance management and advancement to encourage professional development outcomes, and to improve personal motivation and satisfaction. The development of

human resources implies many concernments about workers' education and professional development, determined by the increased rate of the contextual and organizational changes in performance (Abdolvand, et al., 2015). Dekker et al. (2016) expanded on the notion of performance and concluded that the performance of an organization is positively affected by stakeholder satisfaction, involvement, and loyalty toward organizational leaders.

Performance management has recently gained importance in the steering bodies of governmental organizations, largely from changing contextual factors (Woerrlein & Scheck, 2016). The changing factors included the emergence of the efficiency principle (Meyer & Simsa, 2013); more funding being based on performance than on general agreements (Woerrlein & Scheck, 2016), and; increased demand for proof-of-efficiency and effectiveness, rather than proof of proper assignment of funds (Meyer & Simsa, 2013; Woerrlein & Scheck, 2016). Government and non-governmental organizations are, more than ever, under pressure to allocate financial resources efficiently (Woerrlein & Scheck, 2016), and to communicate their performance effectivity, along with their impact on the public

Benefits of Performance Management. The benefits of performance management, implemented effectively, go beyond the individual volunteer and there are numerous benefits for the individual, leader, and organization (Biron et al., 2011; Dekker et al., 2016). Benefits for the volunteer include: more motivation to perform; if feedback is delivered properly and a genuine opportunity for improvement is given, the self-confidence of the volunteer can rise; if the job is defined more clearly, and expectations

are clear, the volunteer receives direction and alignment with the strategic goals of the organization, and; there are developmental opportunities that can be measured. Benefits for the leader include better knowledge of team members, increased team and individual productivity, and mitigation of larger issues through an on-going discussion around performance. Finally, benefits for the organization include goals that are better communicated, understood, and accepted; efforts are aligned in the direction of the achievement of the strategic goals, and; that the content of appraisals may assist in the planning and adaptation of training plans (Biron et al., 2011; Dekker et al., 2016). These benefits can increase the occurrence of member retention, from year-to-year in an organization.

Work-Life Balance. Effectively balancing work and life is crucial for an individual's social, emotional, and physical health. Volunteers have high demands placed on them and must balance the wants and needs of family, work, and voluntary service commitments (Ramos, Brauchli, Bauer, Wehner, & Hämmig, 2015; Raymond, 2016; Smith, 2014; Stukas et al., 2016). Organizational leaders can assist volunteers and play a role in improving the work-life experience of teams.

One way to improve the support a volunteer experiences from family and friends, and increase retention and work-life balance, is for organizational leaders to implement strategies that benefit the volunteer's family directly (Barker, 2014). Huffman et al. (2014) provided examples of efforts that successful organizational leaders have used to engage with family for volunteer retention, these were: to host social events that were family-friendly and inclusive; create new orientation programs that included family

members; highlight non-wage benefits and programs that directly benefit the family, and; distribute satisfaction surveys to volunteers' partners to identify areas of challenge, success, and opportunity. As Barker (2014) explained, by having a loving and supportive family, volunteer work can be pursued, despite the inconveniences. It is the family unit of a volunteer that influences future career and voluntary decisions, through encouragement or discouragement (Huffman et al., 2014). Influence from a family can be positively encouraged if an organization makes a concerted effort to acknowledge and value the importance of a volunteer's family unit.

Theoretical Framework

Identifying and understanding theory that is specific and appropriate to a research question, allows scholars to gain a different perspective, solve problems, and create newly identified solutions (Hancock et al., 2013). Employee turnover has been a focus of interest to scholars for decades, and continues to be an area of interest (Wiesenfeld & Brockner, 2012). Having considered a plethora of options, I chose organizational support and transformational leadership theories to assist in understanding the phenomenon of voluntary turnover of volunteer firefighters in the East Otago area of Fire and Emergency New Zealand.

Organizational Support Theory. Organizational support theory (OST) is defined as a worker's global beliefs about the extent to which the organization values their contribution and cares about their well-being (Eisenberger et al., 1986). The central construct within OST is perceived organizational support (POS), and refers to the degree to which workers believe their work-organization values their contributions and cares

about their well-being (Baran et al., 2012). Higher-levels of organizational support may lead to workers perceiving themselves to be a better fit with the organization, and the more likely workers are to be retained in their organization (Baran et al., 2012; Chung, 2017; Farrell & Oczkowski, 2009). OST is consistent with the NZFS' (2015) strategy and intention to further value volunteers as a crucially important workforce within the organization.

In a review conducted by Rhoades and Eisenberger (2002), POS can function in one of three ways. The first possible way regards workers who experience high levels of POS, those workers will be more inclined to reciprocate increased levels of caring about, and commitment to, the organization, if they feel such factors received. Second, the increased positive feelings and emotional attachment felt by the worker toward the organization, will facilitate workers identifying more strongly with the organization. Finally, workers who experience high-levels of POS will perceive the intent by the organization to reward them for increased performance (Rhoades & Eisenberger, 2002), which, in turn, fosters greater commitment and job satisfaction from the worker toward the organization.

Researchers revealed that worker engagement is positively related to task performance (Shantz, Alfes, & Latham, 2016), work ability (Chung, 2017), and life and job satisfaction (Kurtessis et al., 2017). Such research has increased the scholarly interest in OST, and several factors may explain this surge in interest, including: (a) OST's relationships with organizationally relevant outcomes, such as citizenship behavior and turnover, (b) OST's relevance across occupational contexts, and (c) OST's highly-reliable

measurement using the Eisenberger et al. (1986) survey of perceived organizational support.

According to OST, workers develop POS in response to socio-emotional needs, and the organization's readiness to reward increased efforts made on its behalf (Baran et al., 2012). The theory is an application of social-exchange theory to the employer-employee relationship (Chung, 2017). As such, OST maintains that, based on the norm of reciprocity, workers trade effort and dedication to their organization for socio-emotional benefits (Shantz et al., 2016), such as increased esteem, approval, and care (Chung, 2017).

Transformational Leadership Theory. Whereas organizational support theory focusses on the volunteer/follower, transformational leadership theory focusses on the manager/leader. Leadership behaviors, according to Burns (1978) and Bass (1985), can be described as either *transactional* or *transformational*. The focus of a transactional leader is largely on the self-interest of followers, and involves the provision of rewards and sanctions to ensure subordinates portray desired behaviors. In contrast, a TL focuses on encouraging and motivating followers to look beyond that of their own self-interest (Caillier, 2014; Ng, 2017), to the interests of the group for a collective, shared, and meaningful purpose.

A transformational leader infuses *individualized influence,* which refers to the ability of a leader to make the follower sense trust, devotion, and respect toward the leader (Bass, 1985). Transformational leaders that possess a high level of individualized influence, are admired by their followers who want to emulate their leader's abilities

(Eberly, Bluhm, Guarana, Avolio, & Hannah, 2017; Ibrahim, Ghavifekr, Ling, Siraj, & Azeez, 2014). Ibrahim et al., (2014) and Hemsworth, Mutera, and Baregheh (2013), concluded that there are two aspects of individualized influence: the leader's behaviors denoted as individualized behaviors, and the elements that are attributed to the leader by the followers, termed individualized attributes.

Expanding on earlier work, Bass (1985) proceeded to develop the multifactor leadership questionnaire (MLQ). Bass and Avolio (1994) redefined transformational leadership style by way of attributes and behaviors that included idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration, exhibited in the MLQ. The MLQ measures the constructs of TL and other domains of leadership theory to include transactional leadership, (passive, active, and contingent reward), and laissez-faire leadership (Jelaca et al., 2016). Researchers (Bacha & Walker, 2013; Katou, 2015; Northouse, 2016) have further discovered as a result of MLQ, that the transformational leadership style concerns itself with the responsibility of improving the performance of the followers, while developing the same follower to the highest possible quality potential.

The transformational leadership style, as outlined by Gottfredson and Aguinis (2017) and Stinglhamber et al. (2015) has four components that remain constant: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. A transformational leader who possesses all four of these components can affect the expected and desired outcomes of the follower (Ariyabuddhiphongs & Kahn, 2017; Stelmokiene & Endriulaitiene, 2015). Affects directly relate to the follower's

perception, which is revealed in the volunteer's outcomes in performance (Caillier, 2014) including effectiveness, extra effort, and satisfaction with the transformational leader.

Alternative theories

Transformational leadership and organizational support theories have been applied to this study, though they are just two possible lenses in a large and diverse range of options for leaders to view and understand specific leadership strategies for retaining volunteer firefighters. Another possible theory to explore the influences on volunteer retention that I considered for this study, was Henri Tajfel's *social identity theory*. Loi, Chan, and Lam (2014) stated that social identity is an individual's self-concept, gathered from one's knowledge of belonging to a specific social grouping, combined with the value the individual places on membership within the group. Zaglia (2013) found that volunteers feel motivated to identify themselves with a volunteer organization under social identity theory. Social identity theory was not used for this study because it is limited to specific social groupings. Through extensive research, I have found that a volunteer can have numerous social groupings, meaning that I could not just research one grouping and provide the level of rigor required for a doctoral-level study that has, and retains, credibility with fire service leaders.

A second possible theory to explore the influences on volunteer retention that I considered, was *Herzberg's two-factor theory* (also known as the *motivation-hygiene theory*). Frederick Herzberg's two-factor theoretical premise considers factors in the workplace that lead to job satisfaction, and dissatisfaction, experienced by workers (Herzberg, Mausner, & Snyderman, 1959). Presuming that leaders focus on motivation

factors to increase satisfaction, an outcome can be an improved retention rate of volunteers. A limitation and factor for not including this theory in my study, is the contradictive interpretation of motivation and hygiene factors observed by different viewers (Lo, Lin, & Hsu, 2016); with the diverse range of volunteers to be included in the data collection of this doctoral study, I, therefore, considered this theory not to be appropriate.

A third possible theory to explore volunteer retention in Fire and Emergency New Zealand that I considered, was Vroom's (1964) *expectancy theory*, which purports that the actions of a volunteer are as a direct result of conscious and deliberate choices. Expectancy theory was founded on the premise that employees believe a relationship exists between (a) the level of effort in the workplace, (b) the performance result of the effort, and (c) the reward from effort and performance (Renko, Kroeck, & Bullough, 2012). A limitation of expectancy theory that Lunenburg (2011) found, was the theory's history of receiving criticism from scholars for failing to address cognitive biases that influence one's choices. Again, with the diverse range of volunteer participants who will be included in the data collection of this study, I considered this theory not to be appropriate.

A fourth and final theory that I considered for this study, was Freeman's (1984) *stakeholder theory*. Stakeholder theory offers a possible lens for explaining organizational success and stakeholder support, because of its premise that leaders base their actions on the interest of stakeholders, more than on self-serving agendas (Tang & Tang, 2012). The work of Freeman (2010) was continued by Harrison and Wicks (2013)

and Girard and Sobczak (2012), claiming that both internal and external stakeholders have an investment and benefit to, and in, the organization. Key concepts underlying stakeholder theory are (a) stakeholder value, (b) mutual interests, and (c) stakeholder relationships (Freeman, 2010). A limitation of this theory is that it relates strongly to stakeholders, and less-so to leaders within the organization – this study focuses on the leader's effect on followers – stakeholder theory was, therefore, considered not appropriate.

Transition

In Section 1, I provided the foundation of this study. The general business problem was volunteer firefighter turnover impacts sustainability and increases financial costs. The purpose of this sequential explanatory mixed methods study was two-fold. The purpose of the quantitative component was to examine the relationship between (a) volunteer chief fire officers' leadership styles, and (b) volunteer chief fire officers' perceptions of organizational support, and voluntary firefighter turnover. The purpose of the qualitative component was to explore strategies that volunteer chief fire officers use to reduce volunteer firefighter turnover.

The literature review provided a synthesis of research as it relates to the topic of volunteer turnover. A literature review allowed me, as the researcher, to identify contributing scholarly work, gain support for the research topic, and develop a deeper understanding of the conceptual framework (Rowley, 2012). The literature review includes the following themes: voluntary turnover, volunteerism, contrasts between paid employees and volunteers, generational factors, barriers to retention, strategies to reduce volunteer turnover, and alternative theories.

Section 2 includes the project components of the study. I provide details on my role as the researcher; the participants; the research method and design; the populations; ethical considerations, and; data collection and analysis processes. No collected data is discussed until Section 3.

Section 3 includes the data and analysis components of the study. I present the findings of this study and the applicability to business practice. I discuss how utilizing the

results may contribute to positive social change, and I provide recommendations for action and further research.

Section 2: The Project

The general business problem was that volunteer firefighter turnover impacts sustainability and increases financial costs. The specific quantitative business problem was some fire service leaders do not know the relationship between volunteer chief fire officers' leadership styles, volunteer chief fire officers' perceptions of organizational support, and turnover. The specific qualitative business problem was some fire service leaders lack effective strategies to reduce volunteer firefighter turnover. High voluntary turnover has adverse impacts on organizational outcomes, including quality of work done, customer service and satisfaction, and the efficiency and effectiveness of operations (Abii et al., 2013; Hancock et al., 2013). Increased voluntary turnover also influences organizational performance, internal and external perceptions, and sustainability (Kwon, 2014).

In this section, I discuss the project components of the study. I provide details on my role as the researcher, the participants, the research method and design, the populations, ethical considerations, and data collection and analysis processes. This section provides the detailed information for which data collection can occur in a robust and effective manner.

Purpose Statement

The purpose of this sequential explanatory mixed methods study was two-fold. The purpose of the quantitative component was to examine the relationship between (a) volunteer chief fire officers' leadership styles and (b) volunteer chief fire officers' perceptions of organizational support and voluntary firefighter turnover. The purpose of

the qualitative component was to explore strategies that volunteer chief fire officers use to reduce volunteer firefighter turnover. The quantitative population was volunteer chief fire officers within the East Otago area of the Otago region in Fire and Emergency New Zealand. The qualitative population was six volunteer firefighters within the East Otago area of the Otago region in Fire and Emergency New Zealand. The implications for positive social change include providing fire service leaders in the area, region, and across the country with improved leadership strategies to retain volunteer firefighters, contributing to a high-quality workforce. An improved, stable workforce serves to benefit the individual, the organization, communities, and the general public, through providing high-quality fire, medical, and emergency services.

Role of the Researcher

Researchers are responsible for facilitating the understanding and exploration of the research process, while maintaining neutrality throughout (Marshall & Rossman, 2016). In addressing my overarching role as researcher for this study, I selected, justified, and implemented the methodology design; recruited participants; obtained appropriate permissions; and maintained confidentiality. For the quantitative component of this mixed methods study, my role was to select and attain permission to use the MLQ and survey of perceived organizational support (SPOS) tools to survey the volunteer chief fire officers. For the qualitative component of this mixed methods study, I was the primary instrument in all steps of the research process (Peredaryenko & Krauss, 2013). In the role of the human instrument, I was solely responsible for all aspects of data collection, including developing the interview questions, coordinating the individual interviews, and

conducting the individual interviews. I chose to conduct face-to-face, semistructured interviews with open-ended questions for the qualitative component because the method is effective for collecting rich information from participants (DeFeo, 2013). I collected information during the interviews through using note-taking, recording with an appropriate device, and by utilizing key listening techniques to ensure that I captured all feedback that was relevant to the topic and potential outcomes of the study.

The responsibility of the researcher also includes ensuring respect for persons, beneficence, and justice (U.S. Department of Health and Human Services [DHHS], 1979). These three responsibilities are included in the Belmont Report that researchers should follow. Respect for persons includes two separate moral requirements: to treat all participants as autonomous agents, and to provide protection to persons with diminished autonomy (DHHS, 1979). Beneficence requires the researcher to make efforts to not harm participants, while maximizing benefits and minimizing any potential harm (DHHS, 1979). Finally, justice refers to fairness in distribution; injustice may occur through research if a person who is entitled to a benefit is denied that benefit without good reason or when a burden is imposed unduly on a person (DHHS, 1979). As the researcher, I ensured steps were taken to adhere to the Belmont Report. I applied fairness in the selection of participants, I reviewed the informed consent forms to provide all participants with the information needed to make an informed decision to participate and I disclosed to participants the potential, foreseeable risks and benefits of the mixed methods study.

The experiences and perspectives of the researcher have the potential of bringing bias to data (Mugge, 2016). As a past volunteer firefighter with 4 years of service, (albeit in a different region of Fire and Emergency New Zealand and more than 6 years ago) I have a relationship with some fire service leaders; therefore, it was crucial that I avoid biases in fulfilling my responsibilities. Mitigation of potential researcher bias can be achieved through adhering to a specific protocol for each interview (Jorgensen, Dyba, Liestol, & Sjoberg, 2016). Prior to conducting interviews, I provided participants with information on the protocol, and I adhered to the protocol (Appendix A) throughout the research process.

Participants

The objective of this sequential explanatory mixed methods study was two-fold. The purpose of the quantitative component was to examine the relationship between (a) the leadership styles of volunteer chief fire officers and (b) volunteer chief fire officers' perceptions of organizational support and voluntary firefighter turnover. The goal of the qualitative component was to explore strategies that volunteer chief fire officers use to reduce volunteer firefighter turnover; therefore, participants from two distinct populations of volunteers contributed to this study.

The quantitative participants were volunteer chief fire officers within the East Otago area of the Otago region in Fire and Emergency New Zealand. The first eligibility criteria for participants was that they must be an active volunteer chief fire officer of a brigade within the East Otago area. The second and final eligibility criteria for study

participants was that they must have equal-or-greater-to 5 consecutive years of service in the brigade. The 5-year requirement will ensure a more valid dataset. For a researcher to gain access to participants, and develop and maintain professional relationships, it is critical to follow procedures and regulations (Olsen, Orr, Bell, & Stuart, 2013).

The procedure I followed to gain access to the quantitative participants included reaching out by phone call and following up by email to record and confirm, in writing, the discussion that occurred and next steps. For this call, I followed a preset introductory script template. The follow-up email to prospective participants included information on informed consent and survey protocols. To ensure participant self-selection, obtaining informed consent was the primary method. Acquiring informed consent allows a researcher to know that participants have willingly chosen to engage with the study (O'Reilly & Parker, 2013; Wang & Kitsis, 2013). Participants could withdraw at any time in writing.

The participants' characteristics aligned with the quantitative research question through providing the leadership style data to correlate against volunteer firefighter turnover data. As senior brigade leaders, volunteer chief fire officer input was critical to answer the research question. I assumed that volunteer chief fire officers were able to accurately provide information about their own leadership style and accurately answer survey questions.

The qualitative participants were six volunteer firefighters within the East Otago area of the Otago region in Fire and Emergency New Zealand. In research, sample size should focus on the sample's adequacy and not the number of sample agents. When the

research question has been answered, the number of purposive samples will have reached adequacy (DeFeo, 2013; Olsen et al., 2013; Wang & Kitsis, 2013). Yin (2017) extended on the notion of adequacy and concluded that interviewing key stakeholders within an organization can provide a holistic dataset. The first eligibility criteria for qualitative participants was that they must be an active volunteer firefighter of a voluntary brigade within the East Otago area. The second and final criterion for study participants was that they were volunteer firefighters in brigades that have a transformational volunteer chief fire officer.

For a researcher to gain access to participants, and develop and maintain professional relationships, it is critical to follow procedures and regulations (Olsen et al., 2013). The procedure I followed to gain access to the qualitative participants included reaching out in the first instance by a phone call and following up by email to record and confirm, in writing, the discussion that occurred and next steps. For this call, I followed a preset introductory script template. The follow-up email to prospective participants included information on informed consent and interview protocols. Participants could withdraw at any time in writing. To maintain professional relationships, researchers (O'Reilly & Parker, 2013; Siu, Hung, Lam, & Cheng, 2013) recommended using a personal telephone conversation invitation for participation in studies, with a follow-up reminder, to increase the validity and occurrence of responses and the response rate.

The participants' characteristics aligned with the qualitative research question through being able to provide observations and data on retention strategies within the brigade. The perspectives of a volunteer firefighter/follower of leadership styles may

have increased the validity and reliability of this study. In addition, collecting interview data on retention strategies from individual volunteer firefighters who are directly affected, allowed a correlation to be conducted with organizational turnover data. I assumed that volunteer firefighters would be able to accurately recall retention strategies used by volunteer chief fire officers.

Research Method and Design

Determining a research method and design are key aspects of the research process. Understanding the various explicit and implicit differences between research methodologies and designs, may help a research to select and use the most appropriate approach to answer a research question (Saunders et al., 2015; Yin, 2017). Because I examined a relationship between variables and explored a phenomenon in a real-life context, I selected and followed the mixed methods process and sequential explanatory design.

Research Method

Qualitative, quantitative, and mixed methods are the three methodologies used in research (Yin, 2017). The purpose of this study was two-fold: For the quantitative component, I examined the relationship between (a) volunteer chief fire officers' leadership styles and (b) volunteer chief fire officers' perceptions of organizational support and voluntary firefighter turnover. For the qualitative component, I explored strategies that volunteer chief fire officers use to reduce volunteer firefighter turnover. Because this study required both qualitative and quantitative data collection, I used a mixed methods methodology (O'Reilly & Parker, 2013; Saunders et al., 2015; Wang &

Kitsis, 2013; Yin, 2017). By employing a mixed methods approach, a researcher integrates quantitative and qualitative data collection and analysis (Saunders et al., 2015).

Researchers use a qualitative method to explore connections among various issues, to understand the current phenomenon in a real-life context (Ruzzene, 2015); quantitative researchers examine cause and effect, or the relationship and differences among variables (Watkins, 2012). A quantitative method does not allow for an exploration of strategies in a given situation or case (Bansal & Corley, 2012) and was therefore not appropriate for this study on its own. A qualitative method does not assess relationships between variables, nor can the method express any identified relationships as correlational, causal, or comparable (Westerman, 2013). I chose a mixed methods approach for this study because this methodology goes beyond simply collecting quantitative and qualitative data. The methodology provides readers with a reassurance that the data will be integrated, related, or mixed at a stage, or stages, of the research process (Wright & Sweeney, 2016).

Research Design

The single-phase timing of the quantitative and qualitative data gathering of this study was the reason I chose the sequential explanatory design (Govender et al., 2016; O'Reilly & Parker, 2013; Salmon, 2016; Wang & Kitsis, 2013). This design involves the collection and analysis of quantitative data, followed by a collection and analysis of qualitative data so that the researcher may best understand the research problem. The purpose of this approach was to use qualitative results to assist in explaining and

interpreting the quantitative findings. Using a sequential explanatory mixed methods approach, comprised of structured surveys and supported by semistructured interviews, best answered my specific research questions.

When selecting the sequential explanatory design, I considered and rejected five other designs. The sequential exploratory design is an initial phase of qualitative data collection and analysis, followed by a phase of quantitative data collection and analysis (Salmon, 2016; Salmon et al., 2015). My intent for this study was to collect quantitative data first, therefore this design was not appropriate. The sequential transformative design also has two phases in which the researcher determines the order of data collection, guided by a theoretical perspective, and the results are integrated at the end of the study (Salmon, 2016). My intent for this study was to integrate results throughout the research process, therefore this design was not appropriate. The concurrent triangulation design involves the concurrent, but separate, collection and analysis of quantitative and qualitative data (Salmon, 2016). My intent for this study was to collect quantitative data first, therefore this design was not appropriate. The concurrent nested design is an approach that gives priority to one of the methods and guides the project, while another is embedded (Salmon, 2016). My intent for this study was to refrain from prioritizing one method over another, therefore this design was not appropriate. The concurrent transformative design involves the concurrent, but separate, collection and analysis of quantitative and qualitative data and is guided by a theoretical perspective in the purpose or research question of the study (Salmon, 2016). My intent for this study was to collect quantitative data first, therefore this design was not appropriate.

For the qualitative component of this study, I ensured data saturation was achieved by conducting interviews, collecting information, and gathering documentation until I could adequately answer the research question, and believed that additional interviews would not generate new information from what had already been presented. *Data saturation* refers to a researcher utilizing enough participants for redundancy and replication of data to occur (Marshall, Cardon, Poddar, & Fontenot, 2013; Saunders et al., 2015; Wang & Kitsis, 2013; Yin, 2017). If data saturation does not occur, a researcher may experience issues with analyzing the data and identifying themes (Marshall et al., 2013; Yin, 2017). Member checking (DeFeo, 2013; Houghton, Casey, Shaw, & Murphy, 2013; Reilly, 2013) was also used in this study to ensure data saturation. *Member checking* provides participants with the opportunity to review my summary notes of the interview; to then verify, or correct, the intended messaging and accuracy of the record (Mugge, 2016). Having reliable and valid data will assist with data saturation and unnecessary duplication (Reilly, 2013).

Population and Sampling (Quantitative)

Fire and Emergency New Zealand consists of 360 volunteer chief fire officers (NZFS, 2015). Of the 360 volunteer chief fire officers around the country, 21 are located in the East Otago area of the Otago region; these 21 volunteer chief fire officers formed the target population of the quantitative component of this study. From the population, I selected all 21 participants to undertake a census study, instead of selecting a sample size for the quantitative component of this study. If any of the 21 potential participants who

form the census population did not participate in the study, I would have conducted my analysis on the number of participants that were willing to participate. Having a census sample is preferred, though not required, for a data collection and analysis that produces viable findings. Because the quantitative research question I aimed to answer through this study was: What is the relationship between volunteer chief fire officer leadership styles, volunteer chief fire officers' perceptions of organizational support, and volunteer firefighter turnover, the population was appropriate because the question directly refers to volunteer chief fire officers.

The size of the sample in quantitative research ultimately determines the accuracy and validity of the data. In qualitative research, data saturation refers to statistical power; however, the sample size in a quantitative study is a more formal analysis that ensures validity. An example of this analysis is a *priori power analysis* to determine sample size at a specific significance level using G*Power (Weil et al., 2015). As power increases, the likelihood of a type 1 error decreases. Saunders et al. (2015), suggested that a researcher can increase validity through a larger sample size, through population errors being further analyzed and justified.

To calculate the sample size recommended for this study, I used G*Power 3.1. In my analysis, I used a large effect size (r=.5), a=.05, and a power of .80; from this base data, the recommended sample size was 21. To ensure the validity of the data, and to reduce the occurrence of Type 1 error through remaining above the power rating of .80 (as shown in Figure 1), I endeavored to ensure the sample size was achieved. Following

data collection, I note that I was successful in achieving the sample size of 21 and conducted a census sample.

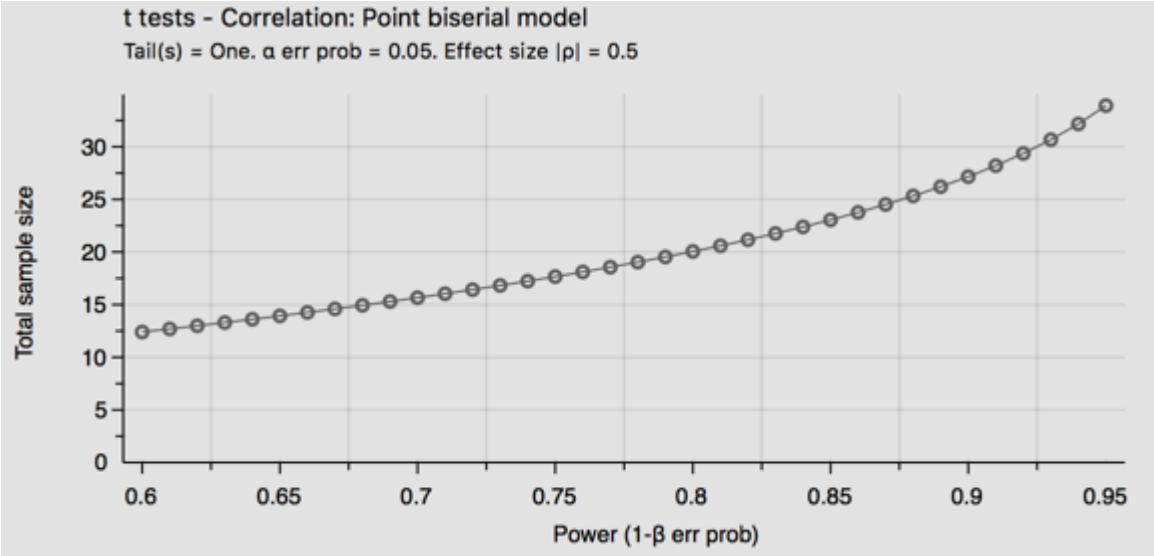

Figure 1. A graph showing power and sample size for this study.

When selecting the sample size of the population, two options available to researchers are probability and non-probability (Barratt, Ferris, & Lenton, 2014; Robinson, 2014; Uprichard, 2013). For each method, there are numerous subcategories to select, depending on the nature of a study (Robinson, 2014). For probability sampling, options include random, stratified, systematic, cluster random, and multi-stage random (Barratt et al., 2014). For non-probability sampling, there are the following subcategories: census, convenience, purposive, modal instance, expert, proportional and non-proportional quota, diversity, and snowball (Robinson, 2014).

For this study, with the participant selection criteria driving the selection of the sample, I used non-probability purposive sampling. *Non-probability purposive* sampling

is where individuals, or units, are chosen, based on their fit with the purpose of the study and specific inclusion and exclusion criteria, from the target population to be included in the study (Barratt et al., 2014; Robinson, 2014; Uprichard, 2013). While I sent a survey to each member within my population by email, in selecting purposive sampling, I considered the strengths and weaknesses of the method. The strengths of the selected purposive non-probability method are that it is cost-effective; less-complex than probabilistic, and; the process takes less time when preparing a sample (Robinson, 2014). The weaknesses of the method are that bias is more prevalent based on the judgment of the researcher in selecting the sample, and; findings cannot be generalized beyond the sample group (Uprichard, 2013). To overcome these weaknesses, particularly researcher bias and the lack of generalizing beyond the sample, I undertook a census study whereby all members of the population were involved.

The benefits of using a census sample are significant and include the provision of a true measure of the population, no sampling error, benchmark data may be obtained for future research, and discreet information about sub-groups within the population will more likely become available. In contrast, the cons of a census sample include: difficulty to enumerate all members of the population within the specified time period; costs are higher than for a sample, and; the timeframe is generally longer for data collection, analysis, and processing. While I chose a census data collection process, it is important to note that whether a census or sample is employed by the researcher, both provide information that can be used to draw conclusions about the entire population (Robinson, 2014).

Having eligibility criteria for interviewees in a study is vital for researchers to narrow down potential participants from a larger population (Rowley, 2012). There were two eligibility criteria for the quantitative component of this study. The first eligibility criteria for participants was that they must be an active volunteer chief fire officer of a brigade within the East Otago area. The second eligibility criteria for study participants was they must have equal-or-greater-to 5 consecutive years of service in the brigade; the 5-year requirement will ensure a more reliable dataset.

Population and Sampling (Qualitative)

Fire and Emergency New Zealand consists of 12,547 individual firefighters, of which over 10,000 are volunteers (NZFS, 2015). Of the 10,000 volunteer firefighters around the country, 546 are located in the East Otago area of the Otago region; these 546 volunteers formed the population of the qualitative component of this study. From the population, I selected six participants to become the sample size of the qualitative component of this study. A sample size of between five and 15 individuals (Reid & Mash, 2014; Roberts et al., 2014; Rowley, 2012) is, in general, sufficient to capture enough responses and themes to achieve data saturation. A sample size of over 10, however, may not necessarily provide more, or richer, data to a researcher (Rowley, 2012).

In contrast, a smaller sample size may limit the ability of the researcher to transfer the study findings (Yin, 2017). Whereas literature provides clear guidelines on sample size numbers (Roberts et al., 2014; Rowley, 2012; Yin, 2017), interviews beyond my selected minimum of five continued for this study until data saturation was achieved and

there was duplication of data. The total number of interviews conducted for this study to achieve data saturation was six.

Compared to the quantitative component of this study, the qualitative sample size is much smaller because a researcher collects rich data from individuals who are involved in, or knowledgeable of, phenomena that relate to answering a research question (Marshall et al., 2013). Selecting an adequate number of participants is critical in the sampling stage (Marshall et al., 2013). The focus of selecting a sample size is to confirm enough participants are scheduled for interviews to reach data saturation (Wang & Kitsis, 2013).

Yin (2017) extended on the notion of sample size adequacy, through concluding that interviewing key stakeholders within an organization can provide a holistic dataset. Having eligibility criteria for interviewees in a study is vital for researchers to narrow down potential participants from a larger population (Rowley, 2012). There were three eligibility criteria for the qualitative component of this study. The first eligibility criteria for participants was that they must be an active volunteer firefighter of a brigade within the East Otago area. The second and final eligibility criterion was that participants must have a transformational volunteer chief fire officer.

The interviewees were selected through *purposive sampling* (also known as judgment, selective, or subjective sampling) which is a sampling technique in which I, as the researcher, applied my own judgment when choosing members of a population to participate in the study (Masso, McCarthy, & Kitson, 2014; Olsen et al., 2013; Saunders et al., 2015). Purposive sampling is a non-probability sampling method and it occurs

when elements selected for the sample are chosen by the judgment of the researcher. Study validity can be increased, through the rich information provided through purposive sampling (Robinson, 2014). Researchers have suggested (Olsen et al., 2013; Yin, 2017), that they can obtain a representative sample by using sound judgment, which will result in saving time and money; an approach which is consistent with my selection of a case study methodology for the qualitative data collection component of this mixed methods study.

Once the interviewees were confirmed, selecting an appropriate interview setting was critical. As stated by Elmir, Schmied, Jackson, and Wilkes (2011), environmental considerations and the appropriateness of venue need to be thought through carefully by a researcher. To reduce the participants' sense of vulnerability, I asked participants individually to choose a venue where they could most comfortably participate in an interview (Dickson-Swift, James, & Kippen, 2007). The only direction I gave is that the space must be quiet, safe, comfortable, and free from distraction. In addition to allowing the interviewees to choose the interview locations, a sign was placed on the door to avoid any interruptions (Saunders et al., 2015). Elmir et al. (2011) found that most participants chose their own home or office to have interviews conducted, because they feel more comfortable to give further insight when prompted, if they are in a personal and familiar space.

While my minimum sample size was five, because I could not answer the research question, I ensured data saturation was achieved through interviewing one more volunteer firefighter from a brigade in the East Otago area. Following the sixth interview, I

established the duplication of themes. *Data saturation* refers to a researcher utilizing enough participants for redundancy and replication of data to occur (Marshall et al., 2013; Saunders et al., 2015; Wang & Kitsis, 2013; Yin, 2017). If data saturation does not occur, a researcher may experience issues with analyzing the data and identifying themes (Marshall et al., 2013; Yin, 2017). In addition, member checking was employed, which provided participants with the opportunity to review my summary notes of the interview; to then verify, or correct, the intended messaging and accuracy of the record (DeFeo, 2013; Houghton et al., 2013; Mugge, 2016; Reilly, 2013). All interviewees replied to my member checking data, confirming that the information I provided was accurate. Having reliable and valid data will assist with data saturation and unnecessary duplication (Reilly, 2013).

Ethical Research

Research, and the collection of data, must be undertaken with high ethical considerations. An institutional review board (IRB) is an oversight-providing governing body that ensures the safety and privacy of human participants (Stang, 2015). As part of the research process and prior to data collection, the IRB of Walden University reviewed the proposal and examined aspects for compliance with ethical standards, which included: (a) the fair treatment of participants, (b) adequate consent procedures, (c) a process for participants to withdraw from the study, (d) confidentiality, and (e) data storage. Vanclay, Baines, and Taylor (2013) described the aforementioned five standards as *general ethical considerations*. I commenced soliciting participants once IRB approval

was granted. My approval number was 05-30-18-0694370 and the expiration date was May 29, 2019.

Each quantitative participant received a consent form by email, and each qualitative participant received a consent form in person, that included background information on the purpose, nature, and potential benefits of the study, which allowed the individual participant to make an informed decision if they wanted to participate in the study, or not. As an ethical researcher, it is important for me to note that a central element of informed consent is a participant knowing that they can withdraw at any time (DHHS, 1979; Stang, 2015; Vanclay et al., 2013). To provide assurance to participants of confidentiality, I maintained raw data on the cloud and on a separate hard drive that only I could access through inputting a password.

Large data-sets may be stored by a cloud-based provider, though researchers can retain smaller datasets on hard drives for analysis and on-going maintenance (Marx, 2013). I also used a password-protected flash drive that will be stored in my personal safe for no less than 5 years after completion of this study, as per University policy. All paper-based data was stored in a locked filing cabinet and, after the 5-year minimum term, the data will be destroyed through secure shredding. If a participant was to withdraw, I would have permanently deleted and/or destroyed any relevant and related data to the individual that was collected and analyzed. Paper data was destroyed through secure shredding, and electronic data was destroyed through a systematic deletion process from all relevant drives and backups.

For the quantitative component of this study, participants were informed that any participation is voluntary and that they could withdraw by not clicking on the survey link, or by not completing the survey and failing to submit the completed form. Once a participant completed and submitted the survey, however, they could not withdraw from the study as no identifiable information was attained from the survey instrument. Participants were informed that their agreement and consent was given when they click the survey link sent electronically by me.

Incentives can be used by researchers as an incentive to increase population response rates (Boucher, Gray, Leong, Sharples, & Horwath, 2015). For the quantitative component of this study, I did not provide participants with an incentive to participate. Providing no incentive remained consistent with the voluntary nature of Fire and Emergency New Zealand.

The statistical package for social sciences (SPSS) is a commonly used statistical support program for quantitative research (Sebjan & Tominc, 2015). I used SPSS version 25 for the raw data analysis of this study which was kept on a password protected computer and hard drive. For the survey instrument, I used Survey Monkey. Disabling the internet protocol (IP) and email address information on Survey Monkey, can protect participant confidentiality (Black & Reynolds, 2013); I used the disable feature provided to further protect confidentiality. Protecting raw data collection and participant confidentiality through the above means, ensured I met ethical considerations, university policy, and general standards.

For the qualitative component of this study, participants were informed that any participation was voluntary, and that they could have withdrawn at any time. Participants were informed that their agreement and consent was given when they signed the consent form in person, prior to the semistructured interview commencing. The interview data was stored on a password protected computer and hard drive. Protecting raw data collection and participant confidentiality through the above means, met ethical considerations, university policy, and general standards.

Incentives are used by researchers, at times, as an incentive to increase participant response rates (Boucher et al., 2015). For the qualitative component of this study, however, participants did not receive an incentive to participate in the face-to-face, semistructured interviews. Providing no incentive was consistent with the voluntary nature of Fire and Emergency New Zealand.

I sought and received IRB approval once the proposal was approved. The IRB provided me with an approval number and an approval expiration date. The approval number for this mixed methods study was 05-30-18-0694370, and the expiration date was May 29, 2019.

Data Collection Instruments (Quantitative)

Data collection for the quantitative component of this study was two-fold. In order to examine volunteer chief fire officers' leadership styles, I chose to use the multi-factor leadership questionnaire (MLQ), a quantitative instrument (Bass, 1985; Bass & Avolio, 1994; Jelaca et al., 2016) for data collection. To examine the volunteer chief fire

officers' perceptions of organizational support, I chose to use the survey of perceived organizational support, a quantitative instrument (Eisenberger et al., 1986; Eisenberger, Huntington, Hutchison, Sowa, & Shanock, 2006; Hellman, Fuqua, & Worley, 2006; Rhoades & Eisenberger, 2002) used for data collection.

The MLQ (see Appendix B) was published by Bass and Avolio (1994) through mindgarden.com. The MLQ was developed from the seminal work on transformational and transactional leadership by Bass (1985). The questionnaire has been validated and used by researchers throughout the world, many thousands of times, with 23 countries having adaptations of the instrument (Dimitrov & Darova, 2016). Adding to the validity of the MLQ, there has been extensive research on the instrument, with more than 27,000 self and rater respondents having completed the questionnaire (Dimitrov & Darova, 2016).

I purchased the MLQ through mindgarden.com, using the option to conduct the data gathering online; to do this, I completed an application to seek permission for a remote survey license. The minimum license allowed me to administer up to 50 questionnaires, one to each of the volunteer chief fire officers in the East Otago area of the Otago region of Fire and Emergency New Zealand. The number of questionnaires allows for a potential 100% population response rate. Upon my purchase being verified and approval received, mindgarden.com issued the license. No training was required for the use of this instrument. The raw data from this survey may be available to third parties upon request to the researcher.

With the MLQ used to identify the first variable of chief fire officer leadership styles, SPOS was used to collect data on the second variable of volunteer chief fire officers' perceptions of organizational support. SPOS (Appendix C) is the most widely used measure of perceived organizational support (POS) (Eisenberger et al., 1986; Eisenberger et al., 2006; Hellman et al., 2006; Rhoades & Eisenberger, 2002) and the central construct within POS is the degree to which workers believe their work-organization values their contributions and cares about their well-being (Baran et al., 2012; Shanock & Eisenberger, 2006).

The majority of research on POS, as found in a meta-analysis by Rhoades and Eisenberger (2002), used SPOS to measure the construct. The meta-analysis has given me sufficient confidence to use SPOS to identify volunteer chief fire officers' perceptions of organizational support in this study. Two example questions from the survey that further provide assurance that SPOS will assist me in answering the research question are: *[t]he organization takes pride in my accomplishments at work,* and; *[t]he organization cares about my general satisfaction at work* (Eisenberger et al., 1986).

The 36 questions of the SPOS use a seven-point Likert scale from *strongly disagree* to *strongly agree.* No training was required for the use of this instrument. Permission was not required to administer this survey, and I used survey monkey as the on-line tool to distribute the survey to volunteer chief fire officers. I gained access to both the 36 question and 8-question survey through the website: http://classweb.uh.edu/eisenberger/perceived-organizational-support/.

In a study by Eisenberger et al. (1986) using the SPOS, the authors analyzed responses through the principle components method of factor analysis. The authors found that one factor accounted for 48.3% of the total variance of the 36 questions asked in the survey; that factor was POS. There was only one additional factor in the factor analysis, found by Eisenberger et al. (1986) that accounted for just 4.4% of the total variance. The reliability coefficient of this study by Eisenberger et al. (1986), yielded .97, with the inter-item correlations having ranged from .42 to .83.

The original SPOS had 36 questions to measure POS; it is now acceptable and standard practice to use the abridged 8-item survey (Eisenberger et al., 2006; Shanock & Eisenberger, 2006). The Spearman-Brown prophecy formula was discussed by Nunnally and Bernstein (1994), along with the accepted practice of reducing the number of survey items that participants complete, while still maintaining an acceptable alpha coefficient. Aligning with this practice, the 8-item abridged version has been pre-set by Eisenberger et al. (2006) and uses the high-loading questions that were identified through a factor analysis conducted on the individual questions. Rhoades and Eisenberger (2002) recommended the abridged version because they found that the original scale is unidimensional and has high internal reliability; therefore, the use of the shorter version does not appear to be problematic. The alpha levels found in research (Eisenberger et al., 1986; Eisenberger et al., 2006; Hellman et al., 2006; Rhoades & Eisenberger, 2002) are considered acceptable in terms of reliability, and by using the 8-item scale, I hoped to decrease the time barrier for volunteer chief fire officers to undertake and complete the survey.

Because this study proposed the surveying of volunteers, the abridged 8-item survey was used to save time, with the reassurance that validity and reliability was not diminished. After completing the SPOS, a score was derived from first reverse scoring four of the eight questions, before taking an average response rate to all eight questions on the abridged version. The respondents then received an average POS score ranging from one to seven. The raw data from this survey may be available to third parties upon request to the researcher.

Data Collection Instrument (Qualitative)

A researcher, through the interview and research process, can use skills and expertise to improve result quality (Yin, 2017). As the primary qualitative data collection instrument for this study, I conducted semistructured interviews and used my own skills for data quality improvement. Five interview questions were asked of six local volunteer firefighters who had a transformational volunteer chief fire officer, providing data to answer the main, qualitative research question. The interview questions for the qualitative component of this study are available in Appendix D.

The data collection process for this study involved me, as the researcher, asking participants open-ended questions in face-to-face semistructured interviews. I collected contact information for participants from the regional service center and used a preset script to introduce myself and the study. A semistructured interview is an effective data collection instrument for qualitative research (DeFeo, 2013; Rowley, 2012; Yin, 2017). Interviews provide participants with the opportunity to share rich data concerning their experiences on a topic selected by the researcher (DeFeo, 2013). The location of the

interviews was at the sole discretion of the individual interviewees. I collected information during the interviews through using note-taking (Muskat et al., 2012); recording (DeFeo, 2013) with my Apple iPhone 7 and Panasonic RR-US300 audio recorder, and; through utilizing key listening techniques (Muskat et al., 2012) to ensure that I captured all of the feedback that was relevant to the topic and potential outcomes of the study.

A key listening technique I employed was *active listening*. Active listening is a skill that can be acquired and developed with practice (Altabef, Meier, Reynolds, Delucia, & Friedling, 2017) and involves fully concentrating on what is being said, rather than simply and passively hearing the message. Signs of active listening can be verbal and non-verbal. Verbal signs are remembering, reflecting, questioning, clarifying, and summarizing (Malisz et al., 2016). Non-verbal signs are eye contact, remaining present (not distracted), mirroring, and posture (Malisz et al., 2016). Using active listening techniques may have allowed the interviewee to feel more at ease and increase the likelihood of more information being shared.

Following the interview, I confirmed with the participant, the content of notes taken through member checking. Member checking provides participants with the opportunity to review my summary notes of the interview; to then verify, or correct, the intended messaging and accuracy of the record (Mugge, 2016). Member checking can ensure that data is reliable and valid so data saturation can occur and unnecessary duplication is mitigated (Reilly, 2013).

To enhance the reliability and validity of this study, I employed several strategies: I followed the interview protocol (see Appendix A) (Jorgensen et al., 2016; Mugge, 2016; Muskat et al., 2012) and reviewed summary interview notes through member checking (DeFeo, 2013; Houghton et al., 2013; Reilly, 2013). Mitigation of potential researcher bias can be achieved through adhering to a specific protocol for each interview (Jorgensen et al., 2016). Prior to conducting interviews, I provided participants with a hard copy of information about the protocol, and I adhered to the protocol throughout the research process.

Finally, researchers use pilot studies to give their research method a test run, by piloting their means for collecting and analyzing data (Chenail, 2011). A pilot study allows the researcher an opportunity to analyze processes and improve rigor (Morse, 2015). A pilot test was not conducted when IRB approval had been granted. Because I had opportunities during interviews to ask clarifying questions, and because the conceptual frameworks have been successfully proven and implemented in prior studies, I did not conduct a pilot test.

Data Collection Technique

The four principles of data collection, as outlined by Yin (2017), supported my ability to address the qualitative research question. The principles are (a) to use multiple sources of evidence, (b) create a case study database, (c) maintain a chain of evidence, and (d) exercise care when using data from electronic sources (Bell, 2014; Rowley, 2012; Yin, 2017). Adhering to and applying the first principle of *using multiple sources*

of evidence in this study, I conducted semistructured interviews that allowed me to delve deeper into specific issues and get first-hand information on phenomena; I collected organizational data on retention rates once an agreement was signed with the organization, and; I used the quantitative technique of surveying for data on leadership styles. The second principle of *creating a case study database* allowed me to organize and document my data in a logical way; the data was presented for transferability and provided an evidentiary base (Yin, 2017). The third principle of *maintaining a chain of evidence* allowed me to increase the reliability of the study through presenting a set of steps to trace for an external observer; from initial research questions to the ultimate research conclusions (Yin, 2017). Finally, adhering to the fourth principle of *exercising care when using data from electronic sources,* ensured researcher caution of the sometimes-overwhelming amount of information on the world wide web, and acted as a reminder that the cross-checking of information must occur for quality research (Yin, 2017).

To ensure the validity and reliability of data, I followed an interview protocol (Jorgensen et al., 2016; Mugge, 2016; Muskat et al., 2012). Mitigation of potential researcher bias can be achieved through adhering to a specific protocol for each interview (Jorgensen et al., 2016). Prior to conducting interviews, I provided participants with information on the protocol, and I adhered to the protocol throughout the research process to ensure all participants were equally prepared and informed. The interview protocol is included in Appendix A.

Following the interview, I confirmed with the participant my analysis of their responses through member checking. The analysis was sent by email and the participant had 14 days to respond. Member checking provided participants with the opportunity to review my analysis of the interview; to then verify, or correct, the intended messaging and accuracy of the record (Mugge, 2016). All interviewees responded to my member checking notes with confirmation that the themes were an accurate representation of the information shared during the interview. Member checking can ensure that data is reliable and valid so data saturation can occur and unnecessary duplication is mitigated (Reilly, 2013).

The interview technique in qualitative research has strengths and weaknesses. An interview, as a technique, provides the researcher with data to explore the experiences of participants (Jorgensen et al., 2016; Muskat et al., 2012; Reilly, 2013). The advantages of semistructured interviews include getting first-hand, real-life data from a participant (Bell, 2014), and gives a researcher the immediate opportunity to ask follow-up questions, based on the responses of the participant (Rowley, 2012). These strengths form the basis of my decision to use this technique.

The potential weaknesses of interviews include the inexperience of the interviewer (Dickson-Swift et al., 2007); the amount of time each interview may take (Ahern, Stolzenberg, & Lyon, 2015), and; the possibility that participants may only respond with simple yes or no answers, failing to elaborate on key themes (Bell, 2014). To mitigate any negative outcomes of these weaknesses, I built effective rapport

with participants. One of the most important elements of data collection during semistructured interviews on a sensitive topic, is the ability for the researcher to develop a *rapport* with participants (Elmir et al., 2011). Rapport was built through me asking and understanding the motives and intentions of the interviewee, and by communicating the relationship I had with the fire service as a past volunteer firefighter of 4 years. For the participant to hear that I had experiences in the role they currently volunteer in, may have increased the confidence they had in me, as the researcher, to effectively interpret their answers for the purpose of the study. This technique is a more proactive-than-reactive strategy (Dickson-Swift et al., 2007), and approximately 5 minutes of rapport-building time is sufficient in most cases (Ahern et al., 2015).

Data Organization Technique (Qualitative)

To answer the qualitative research question of this study, I conducted semistructured interviews that allowed me to delve deeper into specific issues and get first-hand information on turnover phenomena within Fire and Emergency New Zealand. In addition, I collected organizational data regarding turnover rates. To assist me in organizing the data, I maintained a reflective journal. Maintaining a reflective journal of my personal contributions and responses, as well as interactions with participants, can increase confirmability of a study (Cope, 2014; Houghton et al., 2013; Saunders et al., 2015; Yin, 2017). I used a reflective diary throughout the research process to maintain a reflexive record, and to track my data collection to refer back to, as required (Houghton et al., 2013). The information I recorded in my journal included the alphanumeric codes used to track the interviews; non-verbal cues I observed during the interviews; the setting

in which the interviews took place, and; any other details that may have contributed to the answering of my research question. I followed good practice and ensured that entries to my reflective journal were completed within 48 hours of the events occurring for improved accuracy (Houghton et al., 2013).

After completing the interviews of volunteer firefighters, I gave each audio file and transcript an alphanumeric code to identify the participant while keeping confidentiality. The code given to the first volunteer firefighter was VF1, through to VF6, after data saturation was met. Because data saturation was not met after the minimum five interviews, the coding system continued to six where there was the duplication of data. Keeping data confidential is important to protect participants and remain ethically sound (Marx, 2013). The files were then catalogued and stored on my password protected computer.

To provide assurance to participants of confidentiality, I maintained raw data on the cloud and on a separate hard drive that only I can access with a password. Large data-sets may be stored by a cloud-based provider, though researchers can retain smaller datasets on hard drives for analysis and on-going maintenance (Marx, 2013). I also used a password-protected flash drive that will be stored in my personal safe for no less than 5 years after completion of this study, as per university policy. Any and all paper-based data is stored in a locked filing cabinet and, after the 5-year minimum term, the data will be destroyed through shredding. If a participant was to withdraw, I would have deleted and/or destroyed any relevant and related data to the individual that was collected and analyzed.

Data Analysis (Quantitative)

Data analysis consists of examining and categorizing data (Yin, 2017). The quantitative research question this study aimed to answer was: what is the relationship between volunteer chief fire officer leadership styles, volunteer chief fire officers' perceptions of organizational support, and volunteer firefighter turnover? The quantitative research questions and hypotheses were:

RQ1: Is there a statistically significant relationship between volunteer chief fire officer leadership styles and volunteer firefighter turnover?

$H_0$1: A significant correlation does not exist between volunteer chief fire officers' leadership style and volunteer firefighter turnover.

H_a1: A significant correlation does exist between volunteer chief fire officers' leadership style and volunteer firefighter turnover.

RQ2: Is there a statistically significant relationship between volunteer chief fire officers' perceptions of organizational support and volunteer firefighter turnover?

$H_0$2: A significant correlation does not exist between volunteer chief fire officers' perceptions of organizational support, and volunteer firefighter turnover.

H_a2: A significant correlation does exist between volunteer chief fire officers' perceptions of organizational support, and volunteer firefighter turnover.

The goal of this study was to accept or reject the null hypotheses through examining the relationship between variables. A correlation is a relationship measure between two variables. Correlation does not imply that two variables caused a change in each other, though it does imply that there is some degree of relationship between the

two variables (Goldberg, 2003). In contrast, a causal relationship exists between two events if the occurrence of the first occurrence, causes the other; commonly referred to as *cause and effect* (Goldberg, 2003).

According to Tamura et al. (2014), the Pearson correlation coefficient, which is also referred to as the Pearson's *r*, Pearson product-moment correlation coefficient (PPMCC), or bivariate correlation, is a measure of the linear correlation between two variables: *x* and *y*. The test has a value between +1 and −1, where 1 is total positive linear correlation, 0 is no linear correlation, and −1 is total negative linear correlation (Tamura et al., 2014). The test is widely used in the sciences and was appropriate for this study because I investigated the relationship between variables: chief fire officer perceptions of organizational support, chief fire officer's leadership styles, and retention rates within volunteer fire brigades in the East Otago area.

In statistics, linear regression is an approach for modelling the relationship between a scalar dependent variable *y* and one or more explanatory variables (or independent variables) denoted *X* (Kacar & Uzsoy, 2014). The case of one explanatory variable is called *simple linear regression*. For more than one explanatory variable, the process is called *multiple linear regression*. Multiple linear regression is the most common form of linear regression analysis (Chen, Zhang, & Li, 2017). As a predictive analysis, the multiple linear regression is used to explain the relationship between one continuous dependent variable and two or more independent variables. The independent variables can be continuous or categorical. Because this study investigated the

relationship between a non-continuous dependent variable, a correlation analysis was more appropriate.

A t-test is an inferential statistical test that determines whether there is a statistically significant difference between the means in two unrelated groups (Bridge & Sawilowsky, 1999; Saunders et al., 2015). Statistical significance is indicated by a larger *t* statistic, if the difference in mean between the two groups is low. The independent samples t-test is one of the most prevalent statistics used in medicine, psychology, and education research (Tanius, Lee Siew, Mohd Kasim, & Yulia, 2017). The t-test was derived under the assumption of normality, and is therefore defined as the uniformly most powerful unbiased (UMPU) test, when data are normally distributed (Tanius et al., 2017). Because this study did not investigate differences between variables, but the relationship, this test was not appropriate.

The one-way analysis of variance (ANOVA) test is used to determine whether there are any statistically significant differences between the means of three or more independent (unrelated) groups (Saunders et al., 2015). The test is conceptually similar to multiple two-sample t-tests, but is more conservative (results in less type I error) and is therefore suited to a wide range of practical problems (Gelman, 2005). ANOVA compares the means between the groups a researcher is interested in, and determines whether any of those means are statistically significantly different from each other. Once the test is completed, it is important to realize that the one-way ANOVA is an omnibus test statistic and cannot tell a researcher which specific groups were statistically significantly different from each other, only that at least two groups were

(Cox, 2006). To determine which specific groups differed from each other, a researcher must use a post hoc test. Because this study did not investigate differences between variables, but instead the relationship between variables, this test was not considered appropriate.

Once the results of both the MLQ and SPOS survey instruments were collected, I downloaded the data from survey monkey into Excel. From there, I uploaded key data from the Excel spreadsheet to SPSS. The statistical package for social sciences is a commonly used statistical support program for quantitative research (Sebjan & Tominc, 2015). I used SPSS version 25 for the data analysis of this study, which was kept on a password protected computer and hard drive. I also used a password-protected flash drive that contained statistical data, and will be stored in my personal safe for no less than 5 years after completion of this study, as per university policy. Any and all paper-based data is stored in a locked filing cabinet and, after the 5-year minimum term, the data will be destroyed through shredding. If a participant was to withdraw, I would have deleted and/or destroyed any relevant and related data to the individual that was collected and analyzed.

The validation rules with the SPSS tool are pre-determined, and can assist a researcher in identifying, and finding, missing data (Green & Salkind, 2017) and data that may not, or does not, have the correct value input (Seaman & White, 2013). For this study with a relatively small data set, I visually inspected an output of descriptive statistics to identify missing data, to clean the dataset, and to find items that may fall outside of the response range (Green & Salkind, 2017). A commonly used method for

managing missing data, is to withdraw and reject that data from the analysis (Seaman & White, 2013). Therefore, if I found missing data in a dataset, I would have deleted and removed the individual case using the corresponding feature in SPSS. Because the data sets were complete, no deletion or removal occurred due to missing, corrupted, or outlier data.

There are two main assumptions that pertain to the Pearson correlation coefficient analysis: the independence of individuals sampled and the normal distribution of data (Green & Salkind, 2017; Korkmaz, Goksuluk, & Zararsiz, 2014; Prion & Haerling, 2014). A Q-Q plot is an effective way for a researcher to visually inspect the normality of multivariate data (Korkmaz et al., 2014). If there is a normal distribution between variables, a linear relationship will exist (Green & Salkind, 2017). For an assessment of the distribution of data, and to determine if a violation of normal distribution occurred, I produced Q-Q plots through SPSS and examined the data, visually, for linear relationships. All variables must follow distribution trend lines that are considered normal.

The accepted values for the Pearson correlation coefficient effect sizes in social sciences are: small (.35), medium (between .36 and .67), and large (including .60 and above) (Prion & Haerling, 2014). The output from SPSS for a correlation may include a two-tailed significance test that measures confidence levels and *p*-values (Ellingson, 2013; Green & Salkind, 2017). Confidence intervals and *p*-values indicate statistical certainty (Green & Salkind, 2017), and a *p*-value of .05 and a 95% confidence interval indicate high certainty (Ellingson, 2013). For this study, I would reject the null

hypothesis if the *p*-value for the correlation is .001 or less and has a confidence interval of 99%. Conversely, I would accept the null hypothesis if the *p*-value for the correlation is more than .001 and has a confidence interval of 98% or less.

Data Analysis (Qualitative)

Data analysis consists of examining and categorizing data, which leads to the identification and development of research themes (Yin, 2017). The data analysis process begins with collecting and transcribing interview responses, and continues through to utilizing participant responses to answer the research question (Marshall & Rossman, 2016). Analyzing interview data generally involves: (a) transcribing interview data; (b) coding the interview data; (c) searching for, and establishing, similar codes; (d) sorting and comparing the data; (e) integrating the codes, data, and themes; (f) combining the codes, data, and themes, and; (g) transferability of the data for study results (Clarke & Braun, 2017; Marshall & Rossman, 2016; Quartiroli, Knight, Etzel, & Monaghan, 2017; Yin, 2017).

The analysis process I used for the qualitative component of this study, was thematic analysis (Clarke & Braun, 2017; Lee, Arora, Brown, & Lyndon, 2017; Yin, 2017). The aim of *thematic analysis* was not simply to summarize the data content, but to identify and interpret, key, but not necessarily all, features of the data; all of which are guided by the research question (Clarke & Braun, 2017). Thematic analysis provides accessible and systematic procedures for generating codes and themes from qualitative data (Lee et al., 2017). Codes are the smallest units of analysis that capture notable features of the data (Yin, 2017) that are relevant, or potentially relevant, to answering the

research question. Additionally, codes can be described as building blocks for themes (Clarke & Braun, 2017), as well as larger and broader patterns of meaning, underpinned by a central, organizing concept.

One aspect regarding the selection of thematic analysis for this study, was the flexibility of the process. Flexibility in thematic analysis is not simply theoretical, but in terms of the research question, sample size and constitution, data collection method, and approaches to meaning generation (Yin, 2017). Such flexibility was valuable to me as the researcher, because volunteers are my population and those individuals have varying commitment and engagement levels, as well as varying time allocations for contribution to this study.

Linked to flexibility and efficiency, is the use of a software package for data analysis. The most popular software packages for qualitative data collection, data management, and data analysis, are ATLAS.ti and NVivo (Woods, Paulus, Atkins, & Macklin, 2015) with more than 90% of researchers using one of those tools (Woods et al., 2015). For this study, the NVivo tool was selected. The tool was used for the uploading of interview transcripts, tracking the responses of participants, and determining the themes from the available data. A researcher can use the features of the NVivo tool to detect themes, capture trends, and provide accompanying codes to interview data (Allard et al., 2014).

For the results of a study to be valid, a systematic approach to data analysis should be undertaken, and consistent throughout the project (Yin, 2017). Because I followed a systematic approach to data collection, I answered my research question and

understood the phenomena that were occurring. To increase the reliability and validity of my data analysis, I adhered to a logical and sequential process for data analysis, in which a researcher should: (a) transcribe the interview; (b) generate and save back-up copies of data; (c) identify meaningful words and phrases; (d) search for concepts and themes, and label as units of analysis; (e) code the data; (f) create categories and labels for identified themes, and; (g) generalize the findings and link to literature (Braithwaite, Moore, & Abetz, 2014; Elo et al., 2014; Marshall & Rossman, 2016).

The detailed first step of this process is to transcribe the interview data, which must include accurate and quoted responses from participants. I listened to the recordings and read the transcriptions until I interpreted enough unique data from the individual interviews, or used my reflective journal to detail salient points. In maintaining a reflective journal of my personal contributions and responses, as well as interactions with participants, I can increase the confirmability of this study (Cope, 2014; Houghton et al., 2013; Saunders et al., 2015; Yin, 2017). I then generated and saved back-up copies of the interview data. These backups were kept on a password-protected flash drive that will be stored in my personal safe for no less than 5 years after completion of this study, as per university policy. Third, I identified meaningful words and phrases from the collected interview data. To facilitate this step, I entered coded data onto a computer file dataset and had corresponding terms that were communicated by the participants as identifiable keywords. This process made data retrieval more efficient and provided greater ease of access to files (Elo et al., 2014).

Next, I searched for concepts and themes, and labelled the units of analysis. Researchers (Elo et al., 2014; Rubin & Rubin, 2012) have concluded that an individual unit of analysis may connect, and be interpreted by, multiple codes. I ensured that each unit was identifiable and unique to minimize unnecessary duplication. Fifth, I coded the data. While coding data can be an efficient process (Rubin & Rubin, 2012) care must be taken and reference to the research question and problem statement must occur frequently; a researcher should focus on data related to the research question and problem statement (Elo et al., 2014). Coding commenced with the analysis of data that refers to the interview questions asked, before analyzing the data that was be provided by participants during the interview. Sixth, I created categories and labels for the themes identified. Using labels allowed for data analysis to be presented in a manner that is easy to navigate for the researcher, and can be duplicated for future confirmability of the study. The final step in the data analysis process is generalizing findings and linking to theory.

This study was grounded in two theories; transformational leadership theory and organizational support theory. OST is defined as a worker's global beliefs about the extent to which the organization values their contribution and cares about their well-being (Eisenberger et al., 1986). The central construct within OST, is perceived organizational support (POS), and refers to the degree to which workers believe their work-organization values their contributions and cares about their well-being (Baran et al., 2012). Whereas OST focusses on the volunteer/follower, transformational leadership theory focusses on the leader/manager. The focus of a transformational leader is on encouraging and

motivating followers to look beyond that of their own self-interest, to the interests of the group for a collective, shared purpose (Caillier, 2014). The transformational leadership style, as outlined by Stinglhamber et al. (2015) has four components that remain constant: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. The data from this study was correlated to these theories through the use of information included in the literature review: voluntary turnover, volunteerism, contrasts between paid employees and volunteers, generational factors, barriers to retention, and strategies to reduce volunteer turnover.

Study Validity (Quantitative)

In quantitative research, validity is determined by whether the variables measure what is intended to be measured (Saunders et al., 2015). The purpose of the quantitative component of this study was to examine the relationship between (a) volunteer chief fire officers' leadership styles, and (b) volunteer chief fire officers' perceptions of organizational support, and voluntary firefighter turnover. This study examined the relationship between leadership styles, perceptions of organizational support, and volunteer turnover. The SPOS and MLQ data collection instruments were used to administer the individual surveys. As previously discussed in detail, both of these instruments have been tested thoroughly for construct and discriminant validity, and have been concluded to be valid and reliable (Bass & Avolio, 1994; Eisenberger et al., 1986; Jelaca et al., 2016; Rhoades & Eisenberger, 2002). Selecting every volunteer chief fire officer from the population addressed measurement validity. Regarding empirical

validity, the literature review that I conducted has mitigated such validity threats to the study.

To ensure statistical conclusion validity, appropriate statistical analysis methods must be used (Luft & Shields, 2014). Utilizing statistical analysis methods is the most effective way to reduce type I errors (Rothman, 2014) and can be used to mitigate the occurrence of type I error in analyzing data (White, 2014). The probability that a researcher has arrived at an inference simply based on chance alone, or type I inference error, is perhaps the greatest threat to statistical conclusion validity (Luft & Shields, 2014; Neall & Tuckey, 2014; White, 2014). For statistical significance, the acceptable value in this study was a *p*-value of .05, or less, and a confidence interval of 95%. These defined parameters may have reduced the threat of type I errors within this study (White, 2014).

The size of the selected sample ultimately determines the accuracy and validity of the data. Where data saturation refers to statistical power in qualitative studies, the sample size in a quantitative study is based on a more formal analysis to ensure validity. An example of this analysis is a *priori power analysis*, that assumes a medium effect size (f^2= .15), α = .05, and two predictor variables; identifying a minimum sample size of 21 participants is required for the selected study. Saunders et al. (2015), supported this notion of minimum sample sizes, and further suggested that a researcher can increase validity through a larger sample size, with population errors being further analyzed and justified.

External validity refers to the extent that a researcher can apply the results of a study to a different, or additional, group (Ioannidis et al., 2014; Newman, Joseph, & Feitosa, 2015; Vilas Boas, Vasconcellos Dias, & Amtmann, 2014). For experimental studies, factors that threaten external validity are more complex and include participant selection, the setting in which the study takes place, and the research procedures that are used (Newman et al., 2015). The greatest factor that may threaten external validity for non-experimental studies, is participant selection (Newman et al., 2015). As this study was non-experimental, I implemented several strategies to mitigate the threat. The first strategy was to ensure a representative sample of the population was selected (Jordan et al., 2015).

Without a representative sample of the population, a study may not be generalizable to other groups outside of the sample (Vilas Boas et al., 2014). To reduce the potential bias in the sample, Ioannidis et al. (2014) concluded that the sample population should be heterogeneous. Fire and Emergency New Zealand consists of 360 volunteer chief fire officers (NZFS, 2015). Of the 360 volunteer chief fire officers around the country, 21 are located in the East Otago area of the Otago region; these 21 volunteer chief fire officers form the target population of the quantitative component of this study. From the population, I selected all 21 participants to become the census sample size of the quantitative component of this study. From this perspective, the sample population of volunteer chief fire officers in the East Otago area was representative of volunteer chief fire officers in other regions. This perspective provides the possibility for generalization

to occur across New Zealand, and provides some mitigation to the threats of external validity.

In addition, stating and employing eligibility criteria, increases study validity (Yin, 2017). The quantitative participants were volunteer chief fire officers within the East Otago area of the Otago region in Fire and Emergency New Zealand. The first eligibility criteria for participants was that they must be an active volunteer chief fire officer of a brigade within the East Otago area. The second and final eligibility criteria for study participants is the volunteer chief fire officers must have equal-or-greater-to 5 consecutive years of service in the brigade; the 5-year requirement will ensure a more valid dataset.

In contrast to external validity, internal validity is the ability of the researcher to infer causation between the dependent variable, and the independent variables (Crano, Brewer, & Lac, 2015). Internal validity is less of a concern for non-experimental studies, such as this study, because there is no manipulation of variables (Crano et al., 2015). Manipulation of variables cannot exist in non-experimental studies, because a relationship is being analyzed. In relation to this mixed methods, sequential explanatory study, the investigated relationship occurred between volunteer chief fire officer leadership styles, volunteer chief fire officer perceptions of organizational support, and voluntary firefighter turnover; therefore, the manipulation of variables could not have existed.

Reliability and Validity (Qualitative)

The most critical components for evaluating the quality of a qualitative research study are validity and reliability. The concept of research quality requires a researcher to follow specific steps in conducting a research project. Saunders et al. (2015) concluded that the data collection methodology of research must be valid, and within ethical standards; adding that the key components to address research quality are validity and reliability.

Both quantitative and qualitative research have critical components of evaluating research quality. Shavelson and Towne (2002) found that transferability, dependability, credibility, confirmability, and authenticity, are also components that characterize research quality. These components are linked to the concept of *rigor*, which, ultimately, and alongside the value of the research results, determine the quality of the research. As a concept, rigor is an important goal, and as stated by Houghton et al. (2013), the concept concerns external evaluators who effectively determine the overall worth of qualitative research.

Reliability

A measure of qualitative quality is *reliability,* which relates to the *consistency* of a measure and is a demonstration that the operations of a study can be repeated, with the same results (Bell, 2014; Heale & Twycross, 2015; Yin, 2017). According to Saunders et al. (2015), there are four distinct threats to the reliability of data, these are: participant error, participant bias, researcher error, and researcher bias. Each of these sources for

data quality are issues that have the ability to negatively impact research, and decrease the reliability of a study.

To reduce negative impacts of threats to reliability, and to promote *dependability*, I employed two key strategies to increase the credibility of this study: I followed the interview protocol (Jorgensen et al., 2016; Mugge, 2016; Muskat et al., 2012) and reviewed summary notes through member checking (DeFeo, 2013; Houghton et al., 2013; Reilly, 2013). Mitigation of potential researcher bias can be achieved through adhering to a specific protocol for each interview (Jorgensen et al., 2016). Prior to conducting interviews, I provided participants with information on the protocol in writing and verbally, and I strictly adhered to the protocol throughout the data collection and analysis process.

Member checking provides participants with the opportunity to review my summary notes of the interview; to then verify, or correct, the intended messaging and accuracy of the record (Mugge, 2016). Having reliable and valid data will assist with data saturation and unnecessary duplication (Reilly, 2013). Finally, researchers use pilot studies to give their research method a test run, by piloting their means for collecting and analyzing data (Chenail, 2011). A well-conducted pilot study can help investigators begin to address method, instrument, and bias issues, because a pilot study allows the researcher an opportunity to analyze processes and improve rigor (Morse, 2015). For this study, however, because I had opportunities during interviews to ask clarifying questions, and the conceptual frameworks have already been successfully proven and implemented

in prior studies, a pilot study was not necessary to increase the reliability and validity of this study.

Validity

Validity is another measure of qualitative research quality, and is the extent to which a concept is accurately measured (Bell, 2014; Heale & Twycross, 2015; Yin, 2017). For example, a survey designed to explore satisfaction, but which measures motivation, would not be considered valid. To ensure validity can be achieved, I employed Yin's (2017) criteria for judging the quality of research designs. The first criteria I met was *construct validity*, which involves identifying correct operational measures for the concepts being studied. The theory of modern validity purports that construct validity is the main concern of research validity, and should be prioritized above other measures (Williams, Scalco, & Simms, 2018). I met this criterion of construct validity through being cognizant of, and overcoming, the threats to validity of participant hypothesis guessing; intentional or unintentional biases in experimental design; the researcher communicating expectations to participants; defining a predicted outcome too narrowly, and; confounding variables (Neo, 2017). The second criteria I met was *internal validity*, which seeks to establish a causal relationship between variables, whereby certain conditions are believed to lead to other conditions. The third criteria, according to Yin (2017), is *external validity,* which defines the domain to which a study's findings can be generalized. Generalizing a study to other, and similar, populations, may reduce resourcing and provide for greater social change.

To reduce negative impacts of threats to validity, and to promote *credibility, transferability, confirmability*, I used multiple sources of data and triangulation (DeFeo, 2013; Marshall & Rossman, 2016; Yin, 2017) and maintained a reflective journal (Cope, 2014; Houghton et al., 2013; Saunders et al., 2015; Yin, 2017). Credibility refers to whether or not the results of a study can be believed (Cope, 2014). The importance of utilizing multiple sources of evidence and triangulation within the data collection process is vital, and will increase credibility (Heale & Twycross, 2015). In using multiple data sources, I could limit the biases that I might have had, and strengthen the validation of the data I collected (Yin, 2017). The multiple sources that I used in my doctoral project were interviews, environmental data of organizational documents of turnover rates, and case study research. With the various data I collected from these sources, data triangulation occurred.

Transferability is the extent to which results of a study or research process can be transferred to other projects (DeFeo, 2013). By ensuring data saturation to a point where the data collection becomes redundant and my study can be replicated, transferability may be achieved. Thick descriptions can also improve the transferability of a study; thick descriptions are detailed information regarding time, culture, place, and context (Heale & Twycross, 2015).

Confirmability refers to the accuracy of data (Houghton et al., 2013). Maintaining a reflective journal of my personal contributions and responses, as well as interactions with participants, can increase confirmability of a study (Cope, 2014; Houghton et al.,

2013; Saunders et al., 2015; Yin, 2017). I, therefore, used a reflective diary throughout the research process to maintain a reflexive record, and to track any occurrences that affected the research validity, and where confirmability may be questioned (Houghton et al., 2013).

Finally, I ensured data saturation was achieved through conducting semistructured interviews, collecting information, and gathering documentation, until I could adequately answer the research question. *Data saturation* refers to a researcher utilizing enough participants for redundancy and replication of data to occur (Marshall et al., 2013; Saunders et al., 2015; Wang & Kitsis, 2013; Yin, 2017). If data saturation does not occur, a researcher may experience issues with analyzing the data and identifying themes (Marshall et al., 2013; Yin, 2017).

Transition and Summary

In Section 1, I provided the foundation of this study. The general business problem was volunteer firefighter turnover impacts sustainability and increases financial costs. The purpose of this sequential explanatory mixed methods study was two-fold. The purpose of the quantitative component was to examine the relationship between (a) volunteer chief fire officers' leadership styles, and (b) volunteer chief fire officers' perceptions of organizational support, and voluntary firefighter turnover. The purpose of the qualitative component was to explore the effectiveness of retention strategies volunteer chief fire officers use to reduce turnover.

In Section 2, I provided detail on the project components of the study. I began by providing detailed information on my role as researcher, before outlining volunteer chief fire officers as quantitative participants and volunteer firefighters as qualitative participants. The research method was mixed methods and the design was sequential explanatory. Ethical considerations and the strategies I employed to ensure this study met all ethical standards were described. Finally, data collection and data analysis processes were discussed, for both quantitative and qualitative components of this mixed methods study.

In Section 3, I present the findings of this study and the applicability to business practice. I discuss how utilizing the results may contribute to positive social change, and I provide recommendations for action and further research. Section 3 includes the data and analysis components of the study. I present the findings of this study and the applicability

to business practice. I discuss how utilizing the results may contribute to positive social change, and I provide recommendations for action and further research.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this sequential explanatory mixed methods study was two-fold. The purpose of the quantitative component was to examine the relationship between (a) volunteer chief fire officers' leadership styles and (b) volunteer chief fire officers' perceptions of organizational support and voluntary firefighter turnover. The purpose of the qualitative component was to explore strategies that volunteer chief fire officers use to reduce volunteer firefighter turnover.

For the quantitative component of this study, the dependent variable was firefighter turnover, and the independent variables were volunteer chief fire officers' leadership styles and volunteer chief fire officers' perceptions of organizational support. The conclusions from the data analyses were that POS has a statistically significant relationship with voluntary turnover, whereas the transformational leadership style does not have a statistically significant relationship to voluntary turnover. Therefore, $H_0$1: A significant correlation does not exist between volunteer chief fire officer's leadership style and volunteer firefighter turnover was accepted, and $H_0$2: A significant correlation does not exist between volunteer chief fire officers' perceptions of organizational support, and volunteer firefighter turnover was rejected.

For the qualitative component of this study, the resulting themes of six face-to-face, semistructured interviews were family acknowledgment and involvement, flexibility in training, a positive culture and satisfaction, a robust vetting/induction process, and communication and recognition. The integration of quantitative and qualitative findings

is provided within this section, with triangulation reinforcing key outcomes and results from this study.

Presentation of the Findings (Quantitative)

In this section, I outline and discuss the testing of assumptions, I present descriptive and inferential statistic results, outline and discuss a theoretical conversation that pertains to the findings, and I conclude with a concise summary. I conducted a correlation analysis to answer my research question and to explore the link between volunteer chief fire officers' leadership styles, volunteer chief fire officers' perceptions of organizational support, and turnover. I visually inspected Q-Q plots to address the normality of the data, and I examined means and standard deviations after the correlations analysis was conducted.

The goal of the quantitative component of this study was to accept or reject the null hypotheses through examining the relationship between variables.

RQ1: Is there a statistically significant relationship between volunteer chief fire officer leadership styles and volunteer firefighter turnover?

$H_0$1: A significant correlation does not exist between volunteer chief fire officer's leadership style and volunteer firefighter turnover.

H_a1: A significant correlation does exist between volunteer chief fire officer's leadership style and volunteer firefighter turnover.

RQ2: Is there a statistically significant relationship between volunteer chief fire officers' perceptions of organizational support and volunteer firefighter turnover?

$H_0$2: A significant correlation does not exist between volunteer chief fire officers' perceptions of organizational support, and volunteer firefighter turnover.

H_a2: A significant correlation does exist between volunteer chief fire officers' perceptions of organizational support, and volunteer firefighter turnover.

The quantitative component of this study investigated the correlation between variables. A correlation is a relationship measure between two variables; correlation does not imply that two variables caused a change in each other, though it does imply that there is some degree of relationship between the two variables (Goldberg, 2003). In contrast, a causal relationship exists between two events if the occurrence of the first occurrence causes the other; this is commonly referred to as *cause and effect* (Goldberg, 2003). According to Tamura et al. (2014), the Pearson correlation coefficient, which is also referred to as the Pearson's *r*, Pearson product-moment correlation coefficient, or bivariate correlation, is a measure of the linear correlation between two variables: *x* and *y*. The test has a value between +1 and −1, where 1 is total positive linear correlation, 0 is no linear correlation, and −1 is total negative linear correlation (Tamura et al., 2014). The test is widely used in the social sciences and was appropriate for this study because I investigated the relationship between variables: chief fire officer perceptions of organizational support, chief fire officer's leadership styles, and turnover rates within volunteer fire brigades in the East Otago area.

Descriptive Statistics

Of the 21 volunteer chief fire officers in the sample, there was a 100% response rate. Of the 42 surveys sent out to participants, there was a 100% response and

completion rate. No responses or records were deleted or eliminated following an initial review of the data. The average turnover rate (recruitment rate minus voluntary turnover divided by the brigade complement) for the East Otago area of Fire and Emergency New Zealand was positive at +5%, while the average perception of organizational support score, on a scale of 0–6, was 4.18.

Mean and standard deviation (SD) data (SD are shown in parentheses) for the transformational leadership constructs of the MLQ were identified as Idealized Influence – Attributes 3.0 (.60), Idealized Influence – Behaviors 3.0 (.67), Inspirational Motivation 2.9 (.65), Intellectual Stimulation 2.9 (.59), and Individualized Consideration 3.2 (.60). Mean and standard deviation (SD) data (SD are shown in parentheses) for the transactional leadership constructs of the MLQ were identified as Contingent Reward 3.0 (.55), Management by Exception – Active 2.1 (.99). And mean and standard deviation (SD) data (SD are shown in parentheses) for the passive/avoidant leadership constructs of the MLQ were identified as Management by Exception – Passive 1.0 (.78), Laissez-Faire .57 (.56). Table 1 depicts descriptive statistics for the independent and dependent variables used in this study.

Table 1

Descriptive Statistics for the Independent and Dependent Variables

	N	Minimum	Maximum	Mean	Std. Deviation
Turnover	21	-.16	.20	.0539	.08730
POS	21	1.75	5.88	4.1845	.95330
II_A	21	1.75	4.00	3.0000	.59687
II_B	21	1.75	4.00	3.0595	.67038
IM	21	1.50	4.00	2.8929	.64504
IS	21	2.00	4.00	2.8786	.59025
IC	21	2.00	4.00	3.2262	.59637
CR	21	1.75	4.00	3.0238	.55286
MBEA	21	.50	4.00	2.1429	.99553
MBEP	21	.00	3.50	1.0595	.77824
LF	21	.00	2.25	.5714	.55982

Test of Assumptions

The assumptions of normal distribution and independence of scores for correlations analysis must be met by data. Q-Q plots are used by researchers to visually test the assumption of normal distribution (Korkmaz et al., 2014). For this study, I produced and examined Q-Q plots that were formed using participant's scores of each construct. Of the 10 constructs inspected, eight showed scores that consistently followed the trendline, whereas two (MBEP and LF) each had one minor outlier. Because the variation of outliers was minimal, the violation was not considered significant. Each construct from the MLQ and SPOS are depicted in Figures 2 through 11: Idealized

Influence – Attributes (figure 2), Idealized Influence – Behaviors (figure 3), Inspirational Motivation (figure 4), Intellectual Stimulation (figure 5), and Individualized Consideration (figure 6), Contingent Reward (figure 7), Management by Exception – Active (figure 8), Management by Exception – Passive (figure 9), Laissez-Faire (figure 10) and, Perceptions of Organizational Support (figure 11).

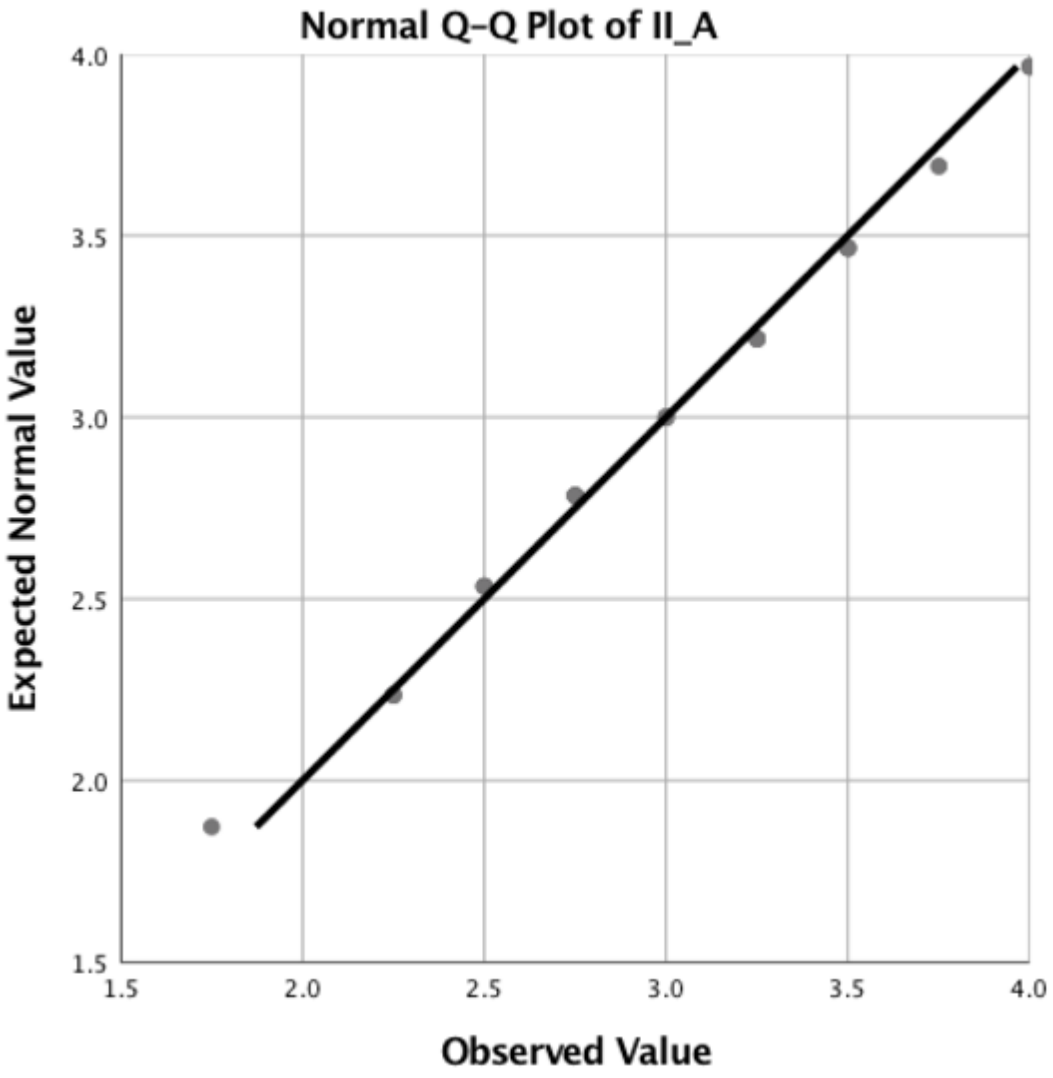

Figure 2. Q-Q plot of scores from the Idealized Influence – Attributes construct.

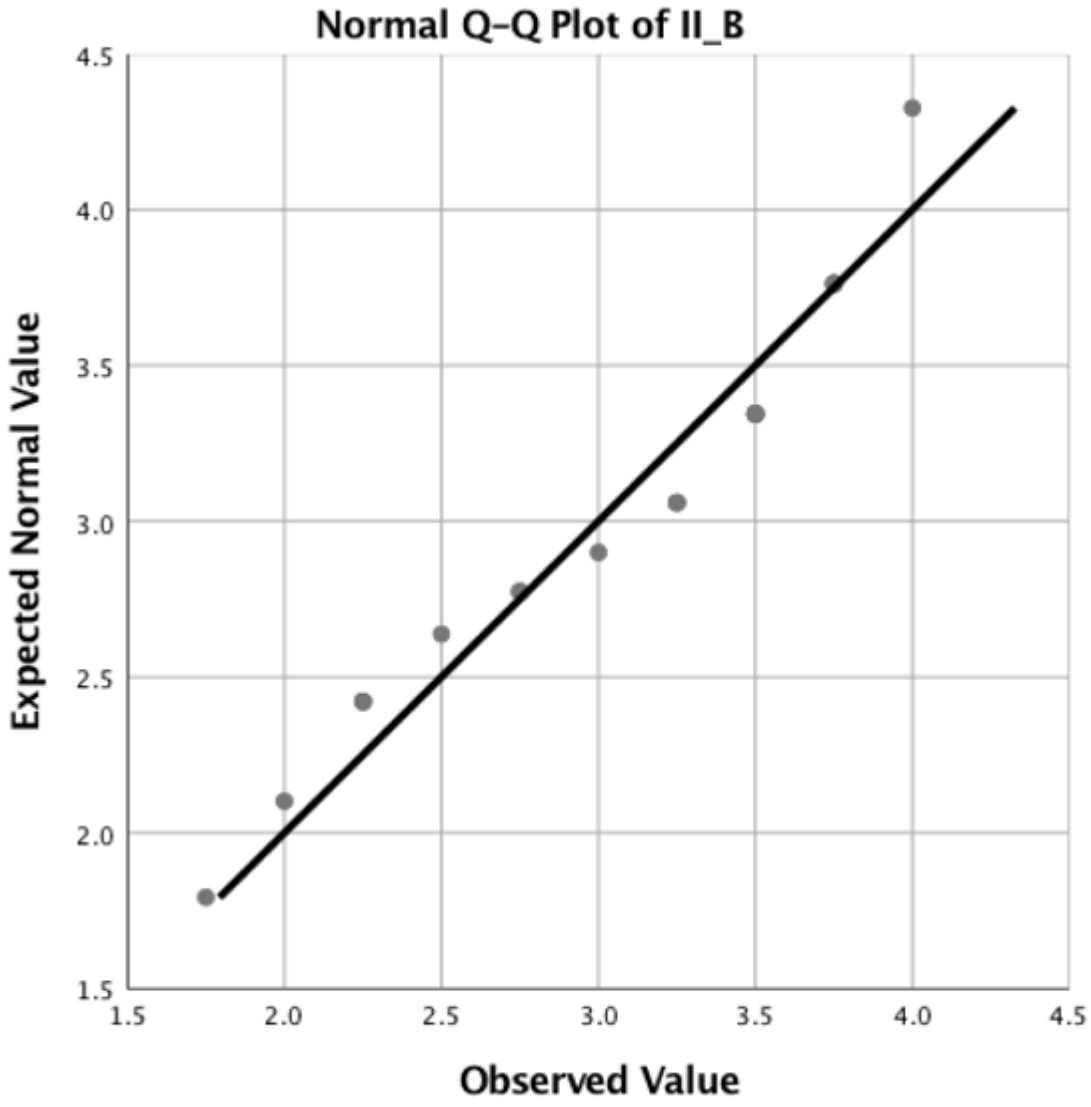

Figure 3. Q-Q plot of scores from the Idealized Influence – Behaviors construct.

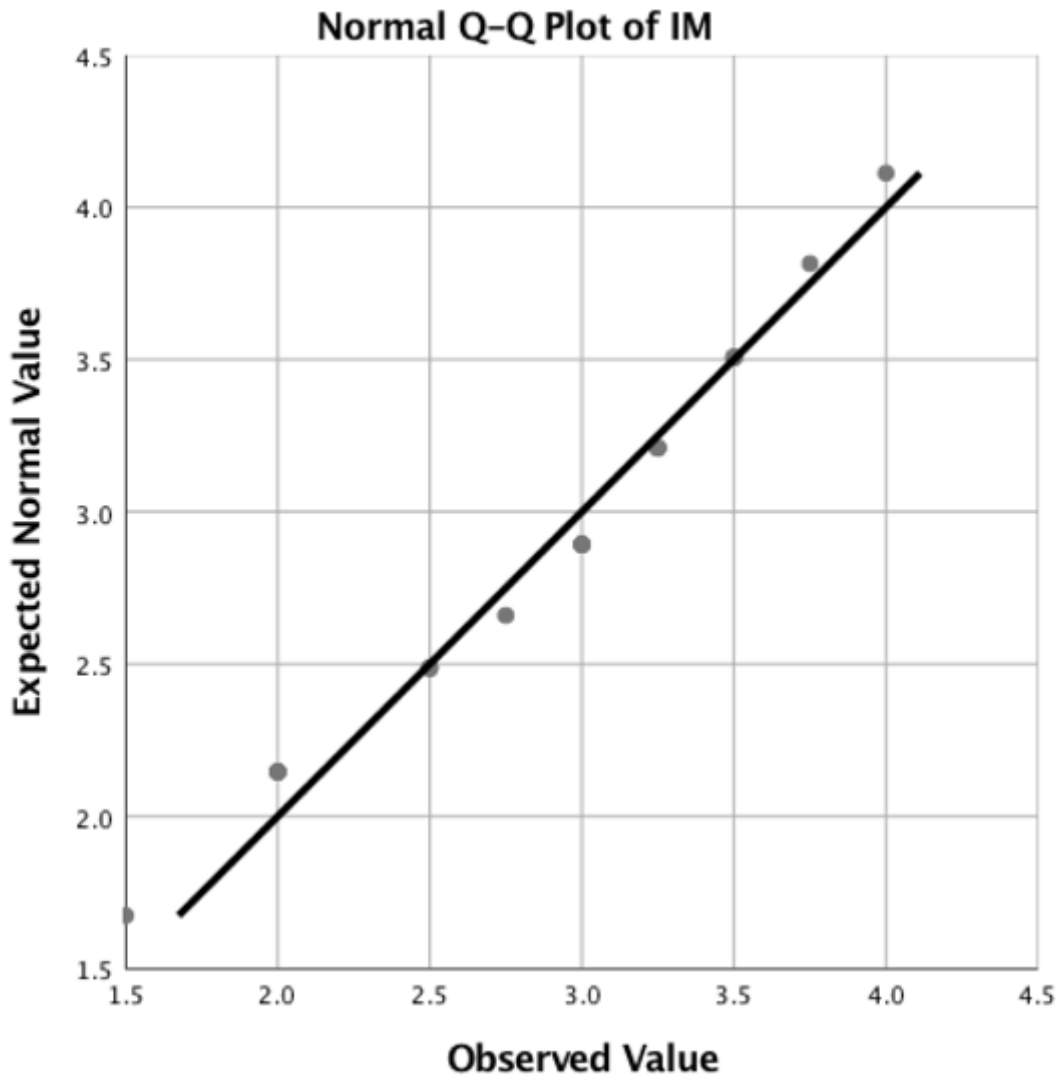

Figure 4. Q-Q plot of scores from the Inspirational Motivation construct.

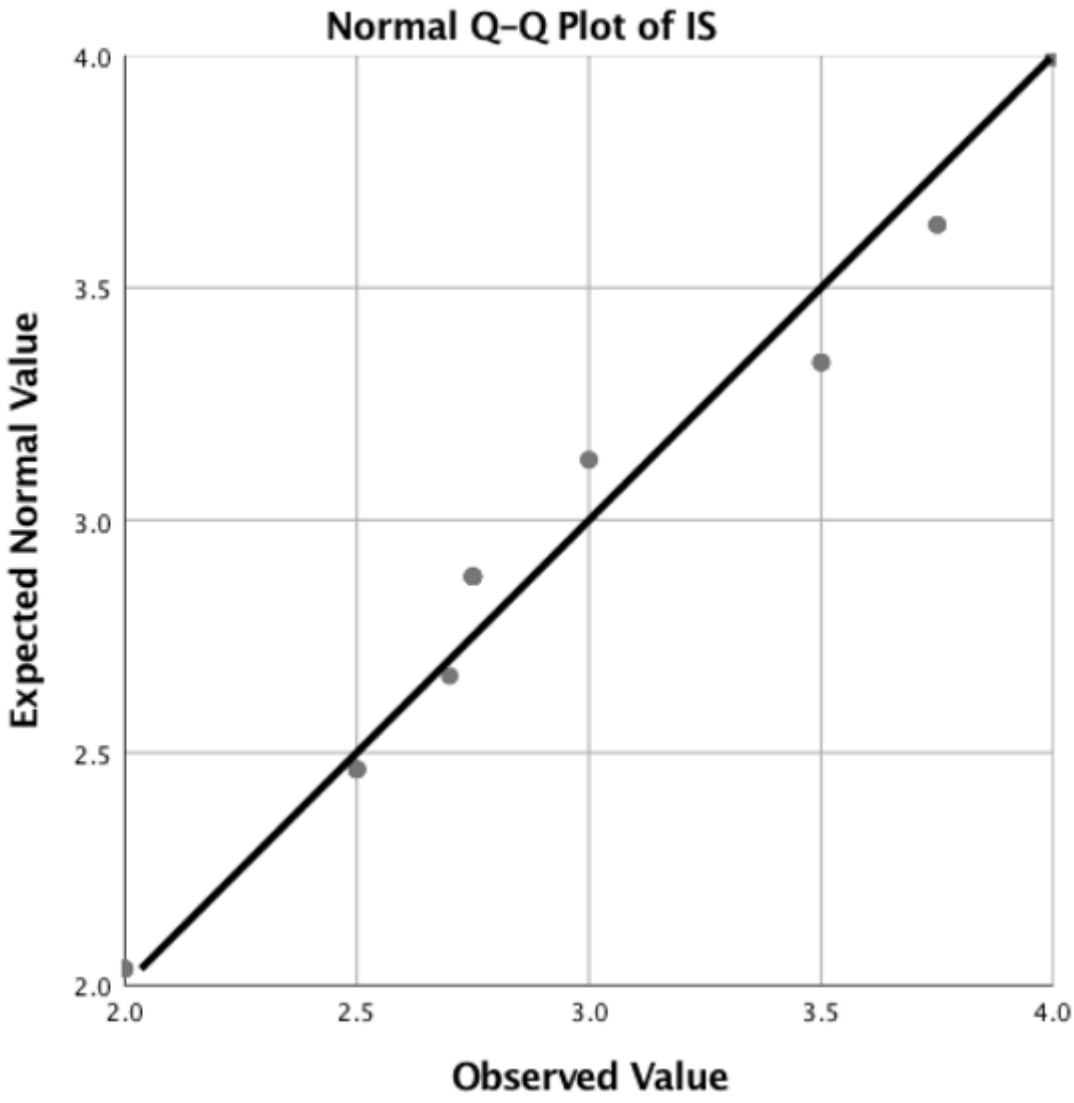

Figure 5. Q-Q plot of scores from the Intellectual Stimulation construct.

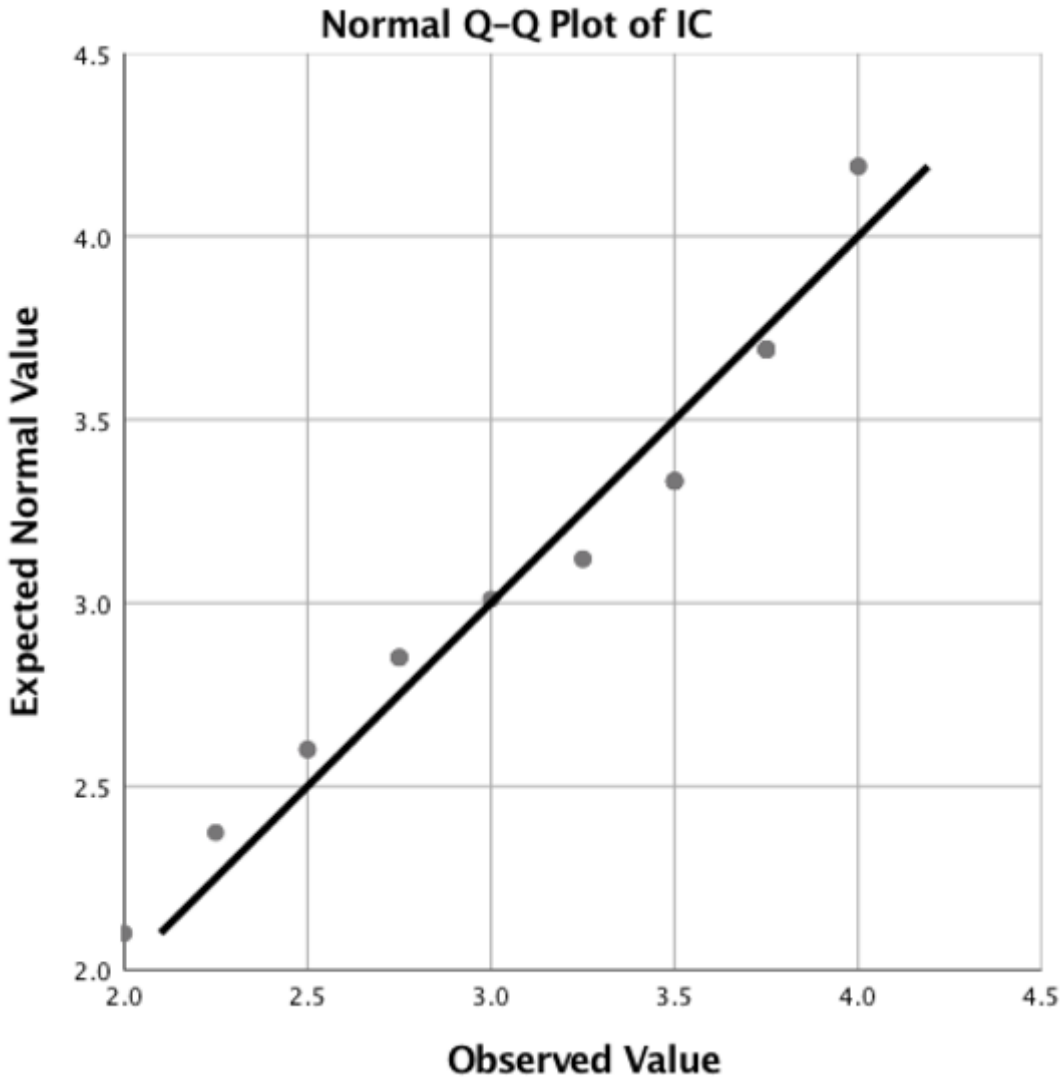

Figure 6. Q-Q plot of scores from the Individualized Consideration construct.

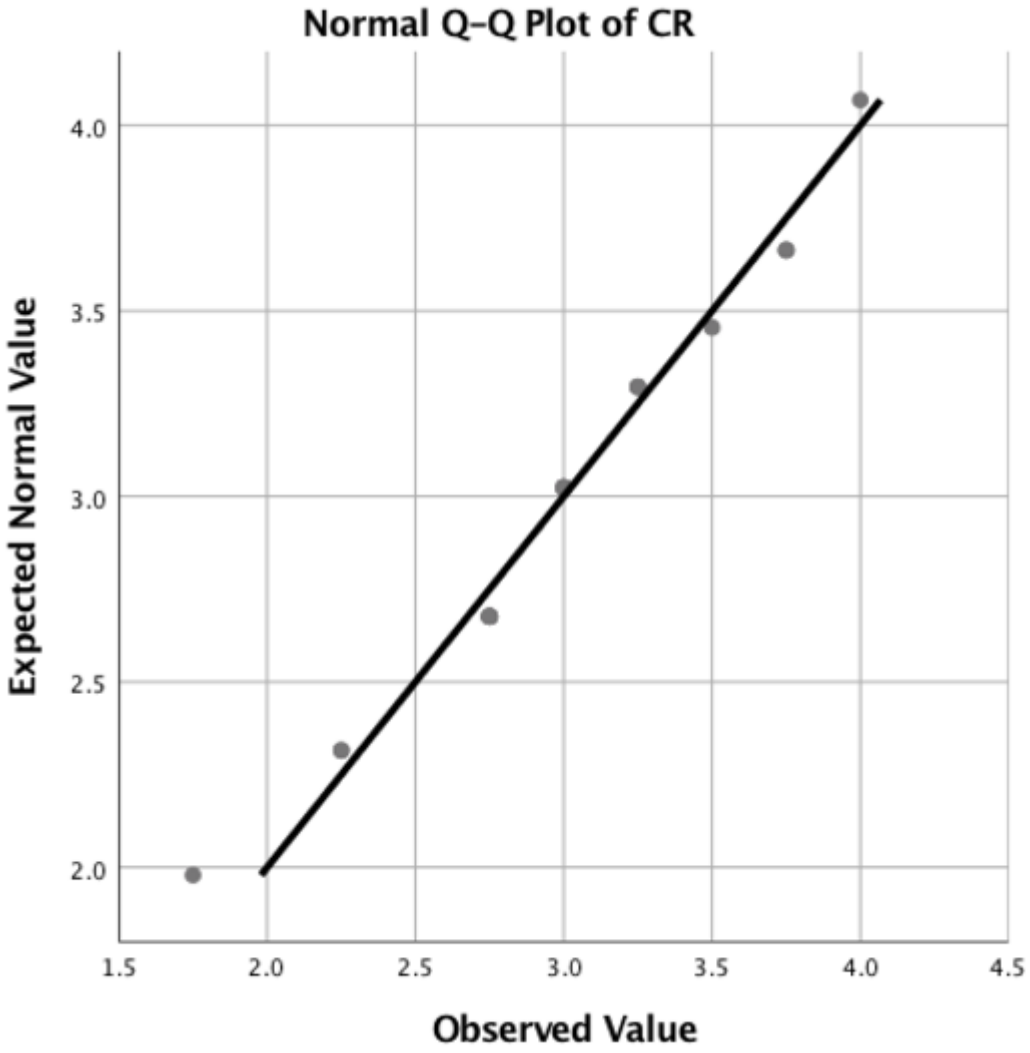

Figure 7. Q-Q plot of scores from the Contingent Reward construct.

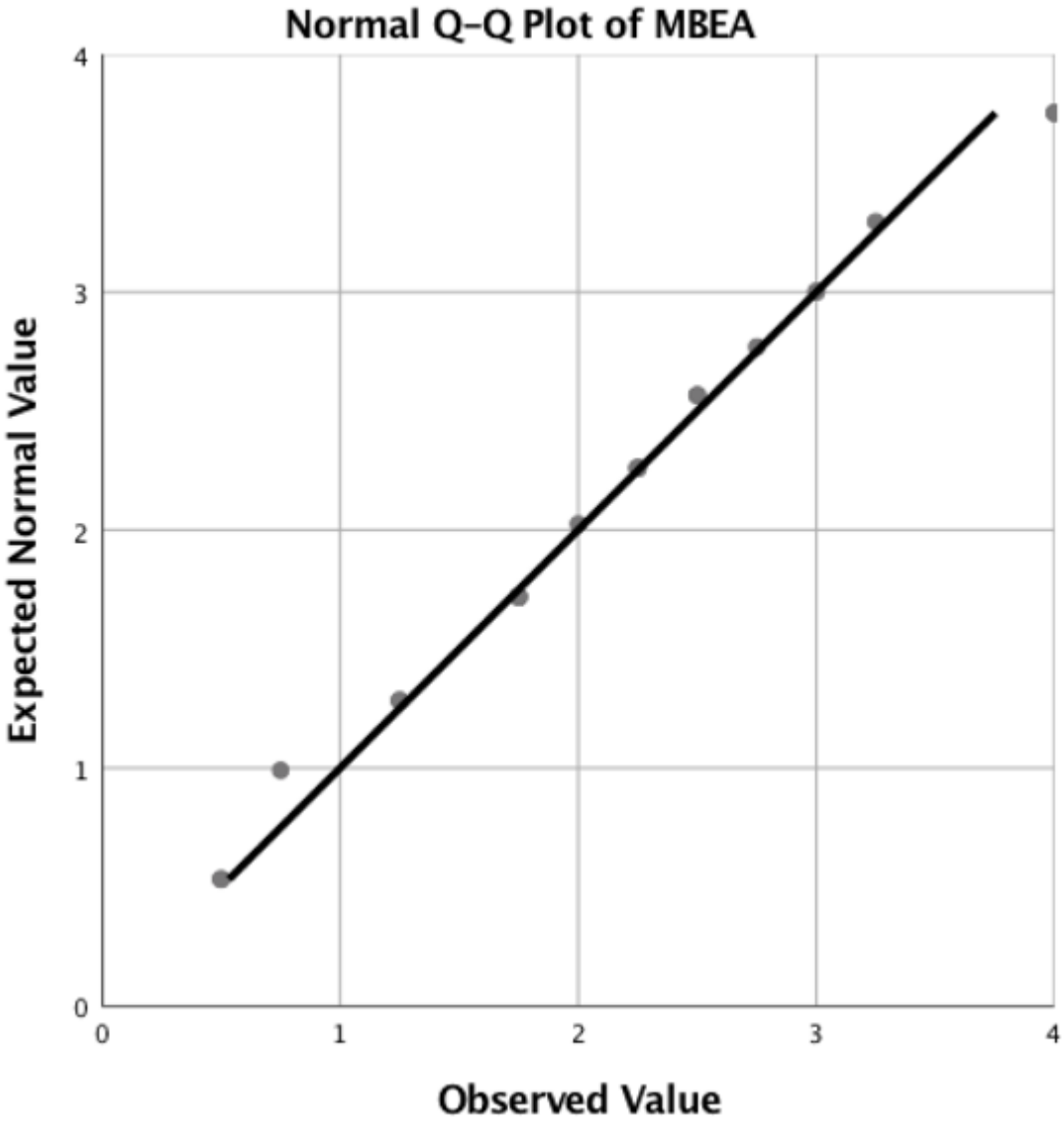

Figure 8. Q-Q plot of scores from the Management by Exception – Active construct.

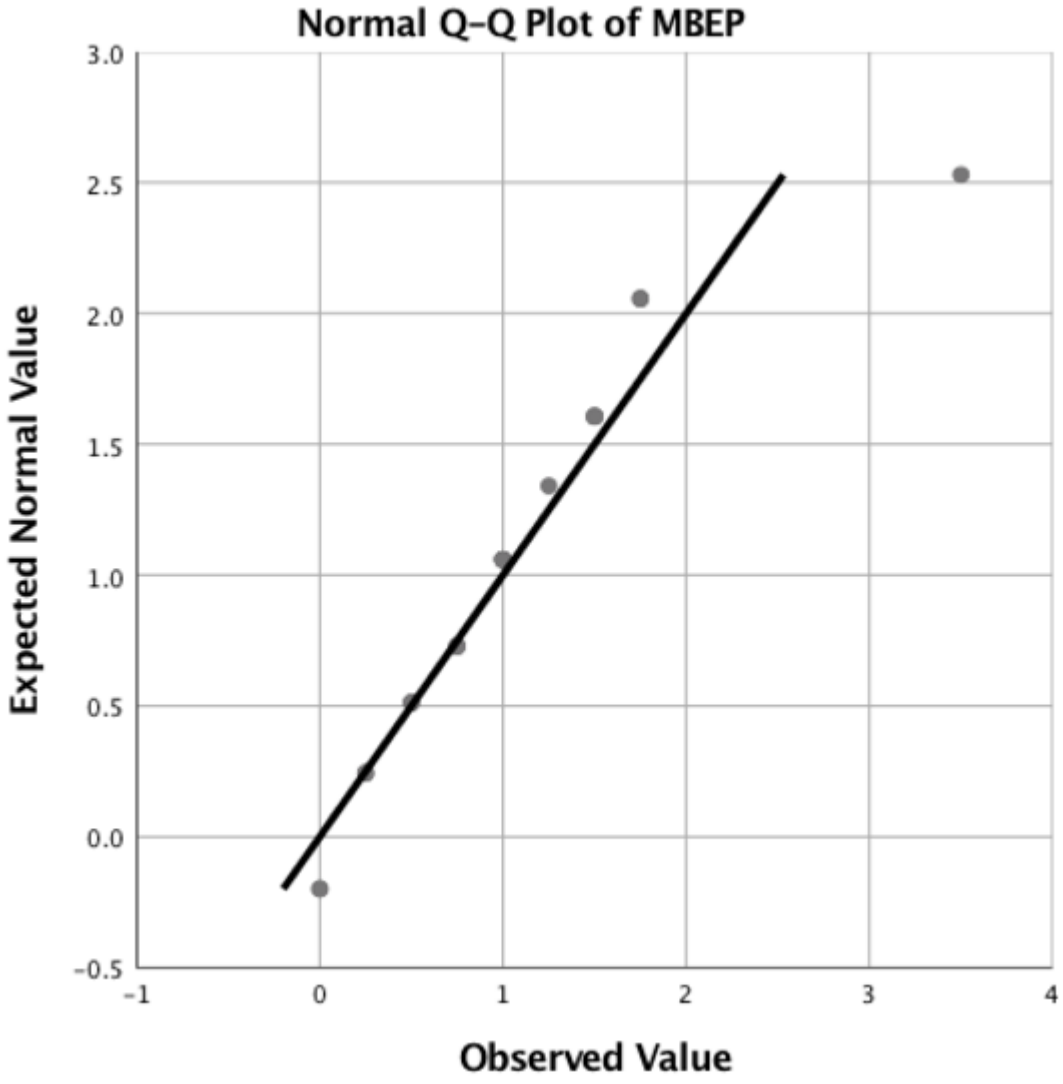

Figure 9. Q-Q plot of scores from the Management by Exception – Passive construct.

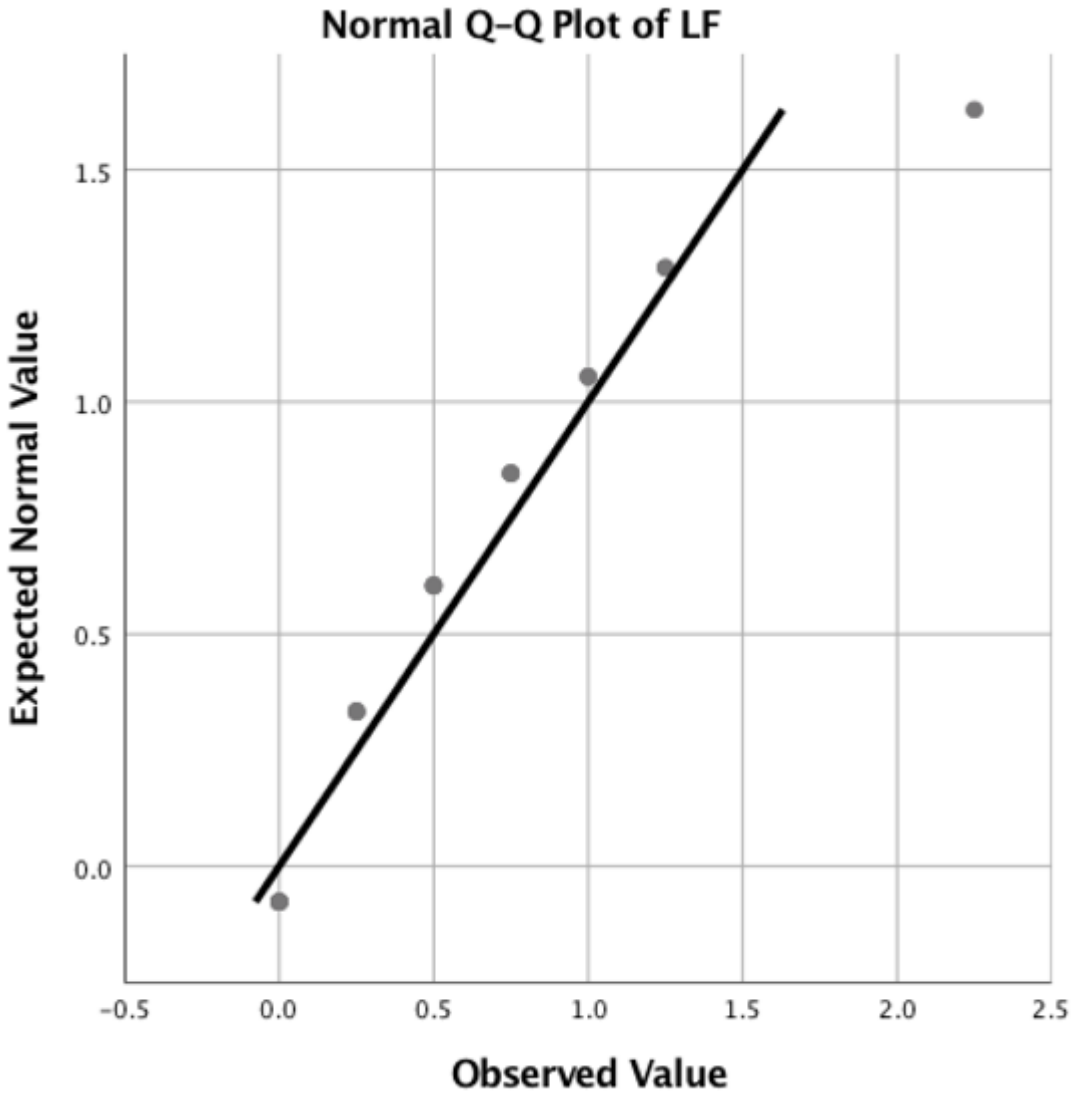

Figure 10. Q-Q plot of scores from the Laissez-Faire construct.

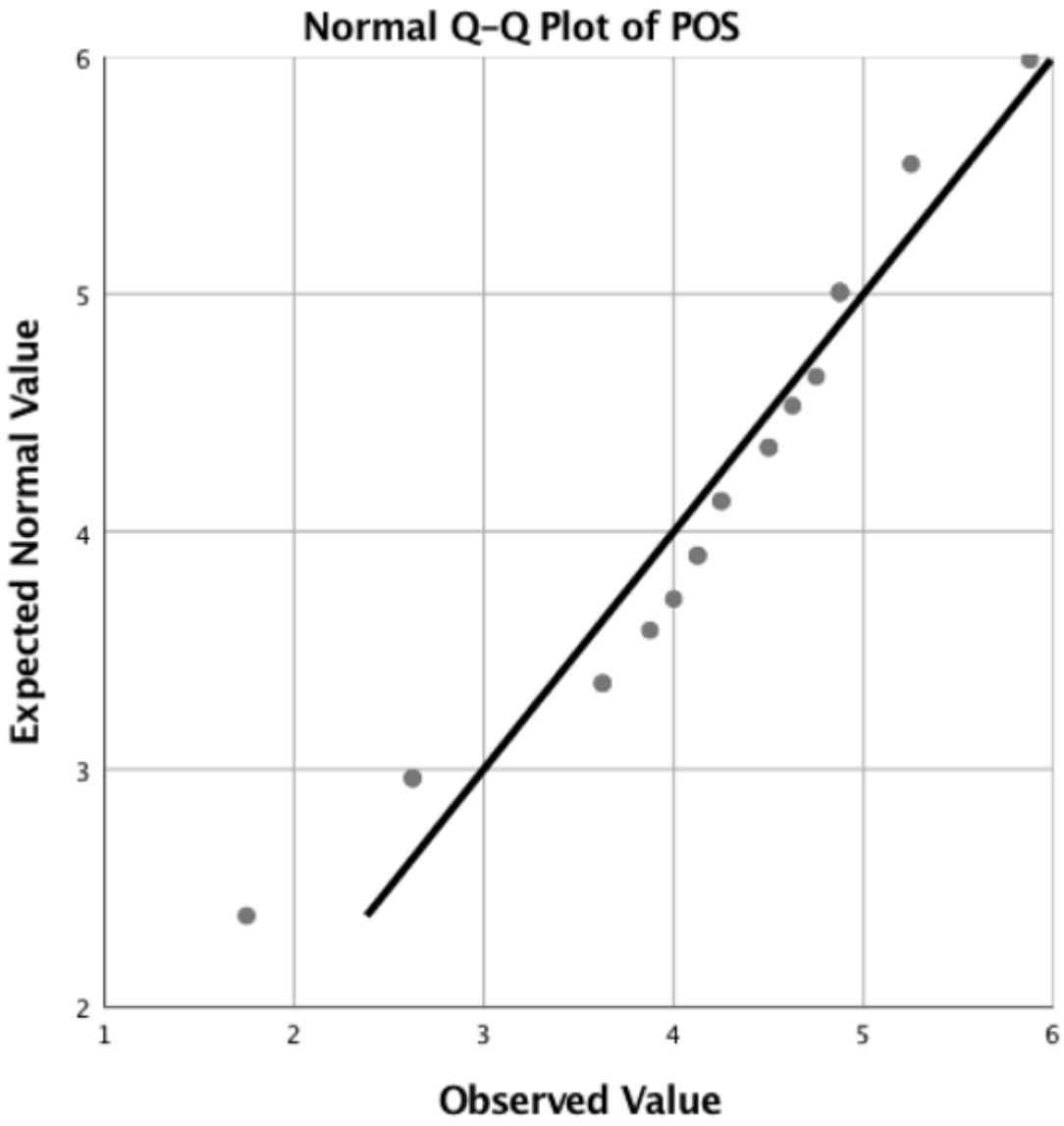

Figure 11. Q-Q plot of scores from the Perceptions of Organizational Support construct.

My visual inspection of the data revealed two outliers, though no serious violations were observed. The assumption of independence of scores is described as the belief that cases are entirely independent of the other, and that all cases are random samples from a sampling field (Korkmaz et al., 2014). The data from the surveys appeared to be normally distributed and independent; therefore, I chose to remain with the Pearson coefficient as my data analysis method.

Analysis Summary

The purpose of this quantitative component of this study was to examine the relationship between (a) volunteer chief fire officers' leadership styles, and (b) volunteer chief fire officers' perceptions of organizational support, and voluntary firefighter turnover. To determine any correlation between the survey items included in the independent variable tools of MLQ and SPOS, on the dependent variable of voluntary turnover, I used the Pearson correlation in SPSS version 25. The assumptions surrounding Pearson's correlation were assessed in line with the pre-determined process of conducting Q-Q plot summaries and no serious violations were noted.

The conclusions from these analyses were that POS has a statistically significant relationship to voluntary turnover, whereas leadership style does not have a statistically significant relationship to voluntary turnover. Therefore, the null hypothesis ($H_0$1): A significant correlation does not exist between volunteer chief fire officer's leadership style and volunteer firefighter turnover was accepted, and the null hypothesis ($H_0$2): A significant correlation does not exist between volunteer chief fire officers' perceptions of organizational support, and volunteer firefighter turnover was rejected.

Findings for Hypothesis 1: Leadership Styles and Voluntary Turnover

In Table 2 below, descriptive statistics of the transformational leadership constructs are provided.

Table 2

Descriptive Statistics for the Transformational Leadership Constructs

	N	Minimum	Maximum	Mean	Std. Deviation
II_A	21	1.75	4.00	3.0000	.59687
II_B	21	1.75	4.00	3.0595	.67038
IM	21	1.50	4.00	2.8929	.64504
IS	21	2.00	4.00	2.8786	.59025
IC	21	2.00	4.00	3.2262	.59637

In following MLQ guidelines, it is recommended that researchers do not categorize leaders as transformational or transactional; rather, as more or less than a pre-determined, international norm that is based on the collective scores of 27,285 participants. Therefore, the mean II_A was in the 50th percentile (more transformational than the norm); the mean II_B was in the 50th percentile (more transformational than the norm); the mean IM was in the 40th percentile (less transformational than the norm); the mean IS was in the 50th percentile (more transformational than the norm), and; the mean IC was in the 70th percentile (more transformational than the norm).

In Table 3 below, the Pearson correlations between the transformational leadership constructs and voluntary turnover are provided.

Table 3

Correlation Matrix: Transformational Leadership Constructs and Turnover

Variable	Turnover
II_A	.016
II_B	.005
IM	.140
IS	-.047
IC	-.019

From the data provided above, no significant correlations existed between any of the transformational leadership constructs (idealized influence – attributes, idealized influence – behaviors, inspirational motivation, intellectual stimulation, individualized consideration) and turnover, at the significance level of $p = .001$. Of the significance scores, the most significant relationship existed between inspirational motivation and turnover, at $(r)19 = .140$ $p.544$. At the level of >.05, Pearson correlations can be deemed not significant.

The Pearson correlation test has a value between +1 and −1, where 1 is total positive linear correlation, 0 is no linear correlation, and −1 is total negative linear correlation (Tamura et al., 2014). The identified significance statistics of II_A $(r)19 = .016$ $p > .05$, II_B $(r)19 = .005$ $p > .05$, IM $(r)19 = .140$ $p > .05$, IS $(r)19 = -.047$ $p > .05$, IC $(r)19 = -.019$ $p > .05$ were not strong enough to determine a statistically significant relationship. Because of the low significance scores, I accepted the null hypothesis ($H_0 1$):

A significant correlation does not exist between volunteer chief fire officer's leadership style and volunteer firefighter turnover.

Themes from the literature were both in support of, and opposing to, the results of this study regarding the impact of a transformational leadership style on voluntary turnover. Not surprising to me, much of the literature does not support the results of this component of the study, with the notion that transformational leadership qualities are strongly linked positively to turnover rates. Transformational leadership is often associated with effective turnover practices, as either a contributor or the main cause of retention and positive turnover rates (Jelaca et al., 2016; Reina, Rogers, Peterson, Byron, & Hom, 2018; Tse et al., 2013).

The theory of transformational leadership is comprised of four key constructs: idealized influence (which can be divided into attitudinal and behavioral), inspirational motivation, intellectual stimulation, and individualized consideration (Ariyabuddhiphongs & Kahn, 2017; Jelaca et al., 2016). Theorists (Eberly et al., 2017; Gottfredson & Aguinis, 2017; Ng, 2017) found that leaders who portray idealized influence, gained followers' respect and trust through emphasizing commitment and collective purpose; increased workers' performance through providing a clear vision and mission-related goals, and; lowered turnover rates and rates of turnover intention through positively influencing followers' commitment to the leader, and to the organization.

According to Duan, Li, Xu, and Wu (2017), senior leaders within organizations should invest in transformational leadership training to link desired organizational goals to specific behaviors and outcomes. These findings do not support the results of this

study that relate to turnover, with no statistically significant relationship shown between the construct of idealized influence and positive turnover rates. More investigation would be required to link followers' behaviors and attitudes from a transformational leader with performance outcomes.

Inspirational motivation (IM) portrayed to followers by a leader provides an organization with benefits (Ng, 2017). Eberly et al. (2017) concluded through their study that followers were shown positive examples to live by from their leaders showing IM, followers' self-interests were fulfilled and extended, and positive reinforcement was common; resulting in positive turnover rates and high satisfaction. In addition, Aldatmaz et al. (2018) found that the portrayal of IM increased motivation, performance, commitment, and positively influenced turnover. These findings do not support the results of this study that relate to turnover, with no statistically significant relationship shown between the construct of inspirational motivation and positive turnover rates. More investigation would be required to link followers' satisfaction from a transformational leader with performance outcomes.

Leaders who exhibit the leadership construct of intellectual stimulation provide an environment where followers are able to solve problems with diverse thinking processes and feedback appropriate challenge toward organizational guidelines (Ng, 2017). Jolly and Masetti-Placci (2016) found in their study that followers increased their abilities to solve problems, were able to use the various perspectives and strengths of others for conflict resolution, and were more creative and were willing to take more risks. The outcome of this behavior had a positive impact on turnover rates and organizational

cohesion. These findings do not support the results of this study that relate to turnover, with no statistically significant relationship shown between the construct of intellectual stimulation and positive turnover rates. More investigation would be required to link followers' creativity and problem-solving abilities from a transformational leader with performance outcomes.

Transformational leaders who projected the individualized consideration construct toward followers, produced workers who felt valued, were developed to their own strengths, and had lower intentions to leave the organization (Duan et al., 2017). Kerdngern and Thanitbenjasith (2017) found that a significant and positive relationship existed between turnover and job performance, and satisfaction, commitment, and trust in leadership. Understanding these relationships between turnover and the identified precursors, assisted leaders in the attraction and retention of workers (Duan et al., 2017). However, Harris, Li, and Kirkman (2014), in a quantitative study, concluded that it was not always feasible for a leader to develop individual relationships with followers, because of limited resources, time, and capacity.

In a voluntary service organization, this conclusion is relevant and may partly explain why these findings do not support the results of this study that relate to turnover. No statistically significant relationship was shown between the construct of individualized consideration and positive turnover rates. More investigation would be required to link followers' satisfaction of relationships and trust in leadership with performance outcomes.

Of note in these analyses of the literature, is that much information is provided on the positive impacts transformational leadership constructs have on turnover, performance, and satisfaction toward both the leader and the organization – collectively and separately – with emphasis on the relationship between the follower and the organization's mission, goals, and vision. Through the data collection and analysis of this study, turnover transfers within the organization were not considered, because FENZ does not hold that information, and any turnover is considered individually. Separately analyzing data on transfers may have provided rich information and another lens of the leadership style impact on turnover. This notion of transfers that relate to turnover is further outlined, discussed, and considered in the conclusion and recommendations sections.

In contrast to the contradictions of the results of this study, there was support of the findings. In an investigation by Tse et al. (2013) into the impact that transformational leaders have on followers' intention to stay and turnover rates, the authors' findings suggested that although transformational leaders may facilitate supervisor-based and organization-based social exchanges, it is the exchange with the organization that translates the leadership effect into turnover intention. Therefore, subordinates are likely to respond to transformational leaders by taking into account the organization's interests, over their leaders' interests and goals. These findings imply that followers are more likely to direct their reciprocating behaviors and attitudes toward the originator of benefits, even though a followers' leader is more likely to be seen as the agent that represents the organization, and the translator of benefits, support, and resourcing. Thus, followers may

continue reciprocating transactions with an organization, through a transfer within the organization, by withdrawing from a low-quality relationship they have experienced with their leader, to another.

The link from this 2013 study to the current study, is the dominance of organizational factors impacting followers intentions to remain involved, over the leadership factors portrayed by a leader toward a follower. In support of this notion is Porter and Steers' (1973) five-dimension turnover model which included the element of constituent attachments. The constituent attachments element of the five-dimension model reinforced that a worker is willing to remain within an organization if the individual's values are aligned to that of the organization, irrespective of the leader. The stronger the link, the higher the level of organizational commitment. These findings could mean that while the transformational constructs were present, and a positive relationship existed between the follower and the leader or organization, there may have been factors outside of the control of both the leader, and the organization, that caused volunteers to leave.

A recent study of special note that is specific to firefighters and voluntary emergency services, was the quantitative investigation by Malinen and Mankkinen (2018) who surveyed 762 volunteer firefighters throughout Finland on issues and barriers that volunteers face, and the volunteers' attitudes and behavioral intentions toward those issues. The most severe and frequently reported barriers were lack of time, conflict with work and/or school, and other work-related challenges. The severity and the number of barriers identified by every individual were positively related to that volunteer's turnover

intentions, conflicts with family commitments, and absence from duties. The study reported no difference between rural, urban, and suburban areas, or between gender and age groups.

These findings may begin to explain the results of this quantitative aspect of the study regarding transformational leadership traits and turnover, because of the additional pressures that volunteers face, over and above those of paid employees. While every effort may have been made by a volunteer's leader, and those leaders who portrayed transformational leadership traits, other issues or operational aspects may have proven more critical for the volunteer to overcome, and voluntary turnover may then have occurred.

Findings for Hypothesis 2: Perceptions of Organizational Support and Voluntary Turnover

In Table 4 below, descriptive statistics for perceptions of organizational support are provided.

Table 4

Descriptive Statistics for Perceptions of Organizational Support

	N	Minimum	Maximum	Mean	Std. Deviation
POS	21	1.75	5.88	4.1845	.95330

In the 8 item perceptions of organizational support survey, possible answers range from 0 (strongly disagree) to 6 (strongly agree). Items 2, 3, 5, and 7 are asked in a manner that requires reverse scoring. The mean represents the average of scores after applicable reverse scoring occurred. A mean of 4.18 represents a collective 70% positive perception of organizational support from volunteer chief fire officers toward Fire and Emergency New Zealand.

In Table 5 below, the Pearson correlations between the perception of organizational support construct and voluntary turnover is provided.

Table 5

Correlation Matrix: Perceptions of Organizational Support and Turnover

Variable	Turnover
POS	.694**

** Correlation is significant at the 0.01 level (2-tailed).

From the data provided above, a significant correlation existed between volunteer chief fire officers' perceptions of organizational support and turnover, at the significance level of $p = .001$. The statistically significant relationship existed between POS and turnover, at $(r)19 = .694$ $p.000$. At the level of <.01, Pearson correlations can be deemed significant.

The Pearson correlation coefficient has a value between +1 and −1, where 1 is total positive linear correlation, 0 is no linear correlation, and −1 is total negative linear correlation (Tamura et al., 2014). Because of the high significance score that resulted from the analysis, I rejected the null hypothesis ($H_0$2): A significant correlation does not exist between volunteer chief fire officers' perceptions of organizational support, and volunteer firefighter turnover.

Themes from the literature supported the results of this study regarding the impact of perceptions of organizational support on voluntary turnover. At the time of publishing, I could not find a study that concluded POS had no relationship to turnover. Not surprising to me, much of the literature supports the results of this study, with the notion that higher perceptions of organizational support are linked positively to voluntary turnover rates. POS is often associated, either a contributor or the main cause of, retention and positive turnover rates (Allen & Shanock, 2013; Iqbal & Hashmi, 2015; Karatepe & Kilic, 2015). Of note, is the significant amount of research conducted on POS and the effect the perceptions of the individual has on their own intention to stay. Less research is linked to the results of this study where leaders are surveyed on their own POS level and how that, therefore, impacts the turnover rates or turnover intentions of their followers.

Organizational support theory is defined as a worker's global beliefs about the extent to which the organization values their contribution and cares about their well-being (Eisenberger et al., 1986). The central construct within OST is perceived organizational support, and refers to the degree to which workers believe their work-organization values

their contributions and cares about their well-being (Baran et al., 2012). Leaders with higher levels of POS have positive turnover rates.

In a quantitative study undertaken by Varma and Russell (2016), the authors concluded that higher-levels of perceived organizational support may lead to workers perceiving themselves to be a better fit with the organization, and the more likely workers are to be retained in their organization. When followers have the belief that an employer or organization, through their leader, cares for and values their well-being and extra efforts, workers will portray behaviors that are favorable and benefit the organization (Chung, 2017). Shantz et al. (2016) found that employers and organizational leaders who invest in the human capital of workers, and who provide a work environment that is supportive, can enhance motivation, positive relationships, more favorable work outcomes, and more beneficial turnover rates. Conversely, when followers perceive there is a lack of support from leaders or the organization, their outcomes and behaviors become increasingly unfavorable, resulting in negative turnover rates (Kurtessis et al., 2017).

In a quantitative study undertaken by Hashish (2017), the author sought to acquire knowledge regarding the effect to which levels of organizational support can assist organizational leaders in effectively dealing with behaviors to enhance worker commitment, satisfaction, and retention. In surveying 500 nurses, the author found a significant correlation between POS and worker turnover. This article relates to the results of this study because nurses are similar to firefighters in that they are involved in emergency situations, and therefore, the results may be generalized.

In continuing the link to recent studies that were investigated through a volunteer and emergency service foci, McBey, Karakowsky, and Ng (2017) examined the impact of POS on organizational commitment and turnover within the voluntary sector. Two hundred and seventy-five health services workers were surveyed and a significant relationship existed between POS, commitment, and turnover rates. Further, the leadership shown to followers impacted the POS results and affects could be seen throughout the organizational structure. Moreover, because OST is an application of social-exchange theory to the employer-employee or leader-follower relationship (Chung, 2017), as such, OST maintains that, based on the norm of reciprocity, workers trade effort and dedication to their organization for socio-emotional benefits (Shantz et al., 2016), such as increased esteem, approval, and care. This leads to an affinity to the organization, or leader, where workers wish to remain active participants for the vision, mission, and outcomes.

Presentation of the Findings (Qualitative)

In this section, I outline and discuss the themes identified from six face-to-face, semistructured interviews with volunteer firefighters in the East Otago area of the Otago region of FENZ. I conclude with a concise summary of the findings. To answer my research question: What strategies do volunteer chief fire officers use to retain volunteer firefighters, I conducted semistructured interviews to ask five questions (Appendix D) at venues selected by the participants. I followed a strict interview protocol (Appendix A), provided participants with information on informed consent, and used member checking

to ensure data validity and reliability. I analyzed the themes using thematic analysis and uploaded data to NVivo for theme identification, coding, and storage.

The conceptual framework of transformational leadership was used as a lens to identify the strategies used by volunteer chief fire officers to retain volunteer firefighters. A transformational leader focuses on encouraging and motivating followers to look beyond their own self-interest (Caillier, 2014; Ng, 2017), to the interests of the group for a collective, shared, and meaningful purpose. The transformational style, as outlined by Gottfredson and Aguinis (2017) and Stinglhamber et al. (2015) has four components that remain constant: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. A leader who possesses all four of these components can affect the expected and desired outcomes of followers (Ariyabuddhiphongs & Kahn, 2017; Stelmokiene & Endriulaitiene, 2015).

The analysis process I used for the qualitative component of this study was thematic analysis (Clarke & Braun, 2017; Lee et al., 2017; Yin, 2017). The aim of thematic analysis is to identify and interpret key features of the data, all of which are guided by the research question (Clarke & Braun, 2017). A thematic analysis provided accessible and systematic procedures for generating codes and themes from qualitative data (Lee et al., 2017). One aspect regarding the selection of thematic analysis for this study, was the flexibility of the process. Flexibility in thematic analysis was not simply theoretical, but in terms of the research question, sample size and constitution, data collection method, and approaches to meaning generation (Yin, 2017). Such flexibility

was valuable to me as the researcher, because volunteers were my population and those individuals have varying commitment and engagement levels, as well as varying time allocations for contributions to this study.

To reduce negative impacts of threats to validity, a researcher should use multiple sources of data and triangulation (DeFeo, 2013; Marshall & Rossman, 2016; Yin, 2017) and maintain a reflective journal (Cope, 2014; Houghton et al., 2013; Saunders et al., 2015; Yin, 2017). For this study, I logged my progress in a journal, and sought and received additional data from FENZ regarding turnover rates within each brigade of the East Otago area of the Otago region. To ensure confidentiality and participant protection, the data were stored on a password-protected computer and interviews were coded from FF1 through FF6.

The qualitative participants were six volunteer firefighters within the East Otago area of the Otago region in Fire and Emergency New Zealand. In research, a sample size should focus on the sample's adequacy, and not the number of sample agents; when the research question has been answered, the number of purposive samples will have reached adequacy (DeFeo, 2013; Olsen et al., 2013; Wang & Kitsis, 2013), as was the case in this study. Yin (2017) extended on the notion of adequacy, through concluding that interviewing key stakeholders within an organization can provide a more holistic dataset to a study.

There were two eligibility criteria for participants to be interviewed and involved in this study. The first eligibility criteria for qualitative participants was that participants must have been an active volunteer firefighter of a brigade within the East Otago area.

The second and final criterion for interview participants was only volunteer firefighters in brigades that had a transformational volunteer chief fire officer were selected for a face-to-face interview.

Analysis Summary

The purpose of the qualitative component of this study was to examine the strategies volunteer chief fire officers use to reduce volunteer firefighter turnover. For qualitative data analysis, the NVivo tool was selected. NVivo was used for the uploading of interview transcripts, tracking the responses of participants, and determining the themes from the available data. A researcher can use the features of the NVivo tool to detect themes, capture trends, and provide accompanying codes to interview data (Allard et al., 2014). My initial intention was to conduct five face-to-face, semistructured interviews with firefighters in East Otago; however, I chose to conduct a sixth to ensure data saturation was achieved. Following the sixth interview, my data had reached saturation and the duplication of themes occurred.

As previously discussed, five themes were identified from the participant interviews regarding strategies their volunteer chief fire officers used to retain volunteer firefighters. The themes were family acknowledgment and involvement, flexibility in training, a positive culture and satisfaction, a robust vetting/induction process, and communication and recognition. After identifying the themes, I logged the keywords, the number of times interviewees communicated the words, and the weighted percentage against the data set. Table 6 below outlines the qualitative themes, word counts, and weighted percentages.

Table 6

Qualitative themes, word counts, and weighted averages

Word	Word Count	Weighted %
Chief	67	1.30%
Good	34	.74%
Family	32	.62%
Thank	31	.60%
Training	30	.58%
Vetting	14	.27%
Culture	13	.25%
Team	10	.19%
Together	10	.19%
Communication	7	.14%

Identified Theme 1: Family Acknowledgment and Involvement

The first theme to emerge was the importance of family acknowledgment and involvement within a brigade. It is the family unit of a volunteer that influences future career and voluntary decisions, through encouragement or discouragement of activities (Huffman et al., 2014). Such an influence from a volunteer's family can be positively encouraged if an organization makes a concerted effort to acknowledge and value the importance of a volunteer's family unit. Firefighter 3 explained the importance of involving families, through sharing that: "I think it's more just about increasing inclusion of people and, almost more recently, for us [the brigade members] to make it more family friendly in regards to people wanting to be here or wanting to spend time here [at the brigade]…" Firefighter 3 continued and shared an example of how the brigade facilitates activities for family involvement, and explained "we have a murder mystery night for

partners and stuff in a couple of weeks, and just things to try and get the families to buy in".

The link between a leader promoting family acknowledgment and involvement, and transformational leadership theory, is the construct of idealized influence where the leader goes beyond self-interest for the good of the group (Ariyabuddhiphongs & Kahn, 2017; Jelaca et al., 2016). This link requires the leader to acknowledge the tasks that need to be accomplished, and to find ways for those tasks to be accomplished not only now, but in the future, and with a workforce that is socially, psychologically, and emotionally supported.

Developing strategies that benefit the volunteer's family directly, can improve family support and increase retention and work-life balance (Huynh et al., 2013). Conclusions from a study by Huynh et al. (2013) were that organizational leaders can reduce the challenges their volunteer workers face with work-life balance, by developing the desired culture through creating policies and strategies that foster a family-friendly environment. Volunteer firefighters who have their family and friends welcomed into a brigade, and who therefore receive higher levels of support and encouragement from family and friends to be involved in the fire service, have their risk of burn-out reduced (Huffman et al., 2014).

The reduction of burn-out has positive implications for the fire service, the brigade, the individual's family unit, and the wider community. Firefighter 4 went into detail about the impact of family involvement and how that links to satisfaction, with a

specific example, and stated that “some families get more on board than others... One of our brigade members has a son who’s got his own BA (breathing apparatus) set and he’s super, super hard-core keen and it’s very cute. And he comes down to training every day, before he has to go back to bed”.

One way to improve the support a volunteer experiences from family and friends, and increase retention and work-life balance, is for organizational leaders to implement strategies that benefit the volunteer’s family directly (Barker, 2014). Examples from Huffman et al. (2014) of efforts that successful organizations have used to engage with family for volunteer retention, were to host social events that were family-friendly and inclusive, create new orientation programs that included family members, highlight non-wage benefits and programs that directly benefit the family, and distribute satisfaction surveys to volunteers’ partners to identify areas of challenge, success, and opportunity (Huffman et al., 2014).

Firefighter 2 reinforced the point of involving family, and explained “we had a recruit that has been to a course and we really helped him along and asked him if his family had any problems. So, keeping in contact with families and letting them know that you care about them”. Firefighter 6 also gave an example of an activity, and shared: “families are certainly always welcome on the station. We try and have informal potluck dinners and all sorts of things just to try and get the whole family involved so that, for that reason, peoples’ partners don’t feel excluded”.

As Barker (2014) explained, by having a loving and supportive family, volunteer work can be pursued, despite the inconveniences. It is the family unit of a volunteer that

influences future career and voluntary decisions, through encouragement or discouragement (Huffman et al., 2014). Feedback from firefighter 4 supported these conclusions from previous studies, through sharing: "[families] can get involved and that's quite nice, and I think that's quite important for some people, to have their families to be able to be involved and stuff, and friends to be able to be involved". Firefighter 4 continued and stated "because it sort of makes it a bit more, I guess, it's more fun and it means that person is not being taken away entirely from their family, like this is not something they do completely separate".

Influence from a family can be positively encouraged if an organization makes a concerted effort to acknowledge and value the importance of a volunteer's family unit. Firefighter 5 expressed the challenges of family pressures on brigade members, and stated: "I think work and family probably pull more guys out of the brigade than anything else". Firefighter 6 explained that "I guess we try and think of it as a big family, and it is like a big family really, to be honest".

Identified Theme 2: Flexibility in Training

The second theme to emerge was the importance of flexibility to the training program, and being adaptable to a voluntary workforce's time and other commitments. The link between a leader promoting flexibility for the follower toward the significant stressor of training, and transformational leadership theory, is the construct of idealized influence where the leader goes beyond self-interest for the good of the group (Ariyabuddhiphongs & Kahn, 2017; Jelaca et al., 2016). This link, once more, requires

the leader to acknowledge the tasks that need to be accomplished, and to find ways for those tasks to be accomplished in a way, or ways, that suits the needs of the individual.

Firefighter 6 expressed concerns regarding costs of training, and reducing the burden through stating "there is obviously a huge cost on actually training firefighters and [chief] is trying to reduce that turnover before you even start, really". Firefighter 1 offered a suggestion from their brigade regarding flexible training programs: "looking at SMEs [subject matter experts] with different roles within the brigade so that when new members do come in, they can assist for training purposes and you know, a certain staff member can be utilized in training for that particular aspect of duties, I suppose".

Engaging with, training, and providing on-going development for an organization's leadership to empower the voluntary workforce and promote satisfaction, can lead to significantly higher levels of engagement (Sheth, 2016) and increase retention in the workplace. The value and importance of training, particularly in voluntary programs, is well documented (Brock & Herndon, 2017; Deery & Jago, 2015; Piotrowski, Stulberg, & Egan, 2018; Rugmann, 2016; Wang et al., 2014). Training is a critical element of a successful volunteer program (Biron et al., 2011). By providing training to volunteers, those individuals can attain additional skills that are used within their voluntary role, and in their everyday lives.

Firefighter 3 outlined the current training climate in their brigade, and the challenges with training: "more things keep rolling out, especially with health and safety becoming what it is these days. Suddenly we've got roof kits and flood kits and all of this extra stuff that we didn't have before that we now have to keep up-to-date with training

and stuff on". Firefighter 3 continued and noted that: "it's just requiring more and more weekends, where we're coming in on weekends to do training courses and that sort of thing".

Training also assists in sensitizing volunteers, increasing motivation for the organizational mission, and increasing retention rates (Wright, 2013). Training helps volunteers to learn about the culture, values, and codes of conduct of an organization, creating alignment with personal drivers. Wright (2013) suggested training, and the use of veteran volunteers in training and supervision, were critical to improving tenure, satisfaction, and productivity of a volunteer workforce. In addition, the implementation of policies that are specific to volunteers, and the creation of a training manual, are necessary to increase or maintain the satisfaction and retention of volunteers, and can assist volunteer leaders in their role (Wang et al., 2014). Firefighter 5 outlined a strategy, and possible solution, for minimizing training overload within their brigade, as led by the volunteer chief fire officer (VCFO):

> the big [strategy] that we have out at [brigade] that [chief] is always fighting with, is the fire service want us to do more and more training. As a brigade, and over long periods, like 8- or 10-hour courses, they [FENZ] say we need to do it on a Sunday; so, our brigade will say, no, we are not doing it on a Sunday, we will do it on two consecutive Monday nights… so we do it over two Monday nights or over one Sunday and have a pot luck tea or whatever.

Work-life balance is a challenge in any industry, sector, or organization. For firefighters in the high-stress environment in which they work, additional training hours

for certification, high and increasing call-out volumes, and pressures from family and friends, all impact retention rates (NVFC, 2016). Sleep restriction and deprivation occur because volunteer firefighters attempt to balance their paid employment and family-life, alongside a significant amount of time training for emergency scenarios, and attending emergency situations (NVFC, 2016). Firefighter 4 reinforced the importance of a leader understanding a volunteer's life outside of the brigade, and the everyday conflicts with volunteering: "I guess [the CFO] being approachable… if your chief fire officer is someone you can talk to, someone you can voice your concerns with… and they're like 'yeah that's fine, not a problem, just come in when you can', then that's, that's really cool".

Firefighter 4 continued and noted that "you would be less inclined to turn up because it would not be an enjoyable situation and you would just peter out". A possible solution, as found by Holmgren (2016) in a study evaluating firefighter training in Sweden, is to consider distance learning. The author concluded that when distance learning, supported by digital technologies was introduced, adaption had to occur and a number of new opportunities and constraints were found. Opportunities included the minimizing of time and resources, while constraints were based around the extended time that instructors needed to shift their thinking away from the old, toward the new ways of facilitating.

Identified Theme 3: A Positive Culture and Satisfaction

The third theme to emerge, encompassed the importance of a positive culture and volunteer satisfaction within the brigade. The link between a leader promoting a positive

culture and working toward high levels of follower satisfaction, and transformational leadership theory, is the construct of inspirational motivation where the leader talks optimistically about the future (Ariyabuddhiphongs & Kahn, 2017; Jelaca et al., 2016). This link requires the leader to both have, and communicate, a vision that followers can relate to, aspire to achieve, and contribute toward. Firefighter 4 provided an overview of what a positive culture looks like within their brigade, through sharing:

> part of it is that he [chief] helps engender a community that is fun and you want to be part of and you enjoy. And that's sort of a top-down approach, you know. So, he is on board, he is easily approachable, and you know, when we are not on the fire ground, the hierarchy sort of disappears, which is quite nice. So, it means you can have a laugh, you can chat, you can joke, you can kind of be buds.

Job satisfaction and a positive culture are crucial for volunteer retention (Zurlo et al., 2016), as many volunteers are motivated by personally intrinsic factors. Organizations that meet the individual needs of their workforce through practices that directly enhance the satisfaction of volunteers, reap the highest rates of retention (Fallon & Rice, 2015). Firefighter 6 reinforced the importance of culture and satisfaction through detailing "I guess we try and play everything to each individual's strengths and weaknesses I guess, but, at the same token, we try to pick up reasonably stable people that we think are going to be in the area for a good, set period of time".

Creating an organizational environment and culture that seeks to promote individual job satisfaction, can lead to increased levels of volunteer retention (Iqbal & Hashmi, 2015; Kolo, 2018). Firefighter 5 stated how their leader creates a culture that

seeks to promote individual job satisfaction: “First of all, he listens. It is as much culture-based as operational as far as getting guys to stay… So, I mean our chief is pretty integral in the retention of good guys… Yeah, there is a lot of professionalism that comes from [chief], he certainly works on the culture”.

Leaders who allow volunteers to have a higher-than-normal amount of control in how they perform job duties and achieve targets, create an organizational culture that has more satisfied workers and a climate of responsibility and trust (Paull & Omari, 2015). Firefighter 2 described how their brigade creates such a climate of responsibility, by sharing how their brigade promotes an open culture “I think the main reason, or the main thing, is just talking to people and asking them if they have any concerns or any issues that might be bothering them within the brigade”. Firefighter 4 also explained how their brigade members get satisfaction in different, unique ways: “as a team, we helped put insulation underneath a house and we spend the whole day doing it. Which would be boring as hell by yourself, but as part of the team, you just get on with it and do it and it’s a bit of fun… and good banter”.

Conversely, negative workplace cultures can significantly minimize volunteer retention (Bowling et al., 2015). Poor organizational reputation as a result of negative workplace culture, leads to minimized job satisfaction, and is a factor that increases volunteer disengagement (Schullery, 2013). Brigades, watches, and organizations, can develop a poor reputation from leaders failing to address non-appropriate workplace conduct, leading to reduced volunteer satisfaction. Leaders can reduce negative workplace cultures by developing and implementing policies that outline acceptable and

non-acceptable behaviors, ensuring that consequences are explicit and followed through on (Bowling et al., 2015).

Feedback from the face-to-face, semistructured interviews, provided strategies on the notion of positive cultures that can be seen from transformational leaders. Firefighter 5 explained that "[chief] is diplomatic to all members and [chief] is always mindful of the culture because that's, I think guys can get around certain one-off issues, operational and socially, but he is careful to hold the whole thing together".

Firefighter 6 reinforced inclusion and the importance of positive culture starting with the VCFO "we've certainly got a chief who's very passionate about the whole fire service, so I guess his passion rubs off on people". And firefighter 3 offered a similar point by stating "it's more just about increasing inclusion of people and, almost more recently, for families to make it more family friendly in regards to, to people wanting to be here or wanting to spend time here".

Identified Theme 4: A Robust Vetting and Induction Processes

The fourth theme to emerge included the key elements of robust vetting and induction processes that empower volunteers, new and existing. The link between a leader implementing a system where expectations are set, and transformational leadership theory, is the construct of individualized consideration where the leader helps others to develop their strengths (Ariyabuddhiphongs & Kahn, 2017; Jelaca et al., 2016). This link requires the leader to first understand, and then to develop and implement strategies for followers to reach their full potential.

A formal orientation program that is linked to training, as well as a peer support system, can garner positive and beneficial outcomes for satisfaction (Biron et al., 2011) and increase retention among workers. Firefighter 1 was strong on this aspect and provided details on a buddy (peer support) system their brigade implemented to empower and promote inclusion for new recruits: "we involve the new recruits, as soon as they come on board, to make them feel that they are achieving something… once they've actually finished up their recruits' courses, [we put them into] a buddy system so they can quickly build up their skill sets and their confidence".

Firefighter 4 reinforced the importance of peer support and on-going interactions with new members, sharing that "with the new people who come in, you sort of try and take them under your wing a bit… and just be like hey, this is what we do… we all sort of contribute towards that". And in an increasingly competitive voluntary sector (Volunteering New Zealand, 2017), newly recruited volunteers who lack, or lose, satisfaction with an organizational climate and culture, are more likely to seek volunteer opportunities elsewhere and leave the organization sooner (McBride & Lee, 2012). The experiences that a new recruit faces, and is provided within the initial months on engagement, are major factors in determining that individual's retention, turnover intention, and commitment to the organization in both positive and negative ways (Smith et al., 2012).

Low retention rates of new volunteers (sub-6 months of involvement), places a financial burden on an organization (Smith et al., 2012). Memon et al. (2016) reinforced the importance of a vetting process, through finding that the highest risk, and rate, of

turnover among new recruits, occurs during the first 3 to 6 months of engagement with an organization, and that timeline begins when the volunteer accepts a position, not their first day on the job. In support of robust vetting and induction processes within a brigade, firefighter 5 explained that "the brigade always vets everyone really well. People have to come along for a good couple of months and show a good interest and we expose them to a few good scenarios… [then they may be] voted into the brigade".

Firefighter 6 was strong on this aspect of retention and gave details on how their brigade uses a vetting process "I think [chief] is very strategic in the fact that he won't take someone on willy-nilly… you've basically got to turn up for trainings for anywhere between 6 to 12 months to show your commitment before you're actually signed up". Firefighter 6 continued and reported that:

> at the end of the day really, it's the chief's decision, but he always throws it out to all the rest of us. Yeah, we try to run our whole brigade so that every member is sort of is part of the management team. So, yeah, at the end of the day he has the final say, but if 75% of the brigade was against someone joining for various reasons, then I think it would be quashed.

According to Smith et al. (2012), the organizational commitment that a new recruit and existing worker experiences is related to how strongly the individual identifies with the organization; how involved and engaged the individual is with the organization, and; the individual's desire to stay connected to the organization. The timelier, and to the greater extent the individual identifies with the social group of volunteers, the lower the risk of turnover (Smith et al., 2012). The sense-of-community, or indeed, loss-of-

community feeling that a newly-recruited volunteer firefighter perceives within a brigade, can also affect retention rates (NVFC, 2016). Fire service leaders should focus on creating an environment that welcomes families into a community that supports each other.

Once volunteers have been recruited to the organization, leaders should commence specific training for the role assigned to the volunteer, as soon as practicable (Wang et al., 2014). Leaders should also provide the support required to understand responsibilities, and the individual's place in the organization (Wang et al., 2014). Volunteers who are appropriately trained, understand their role, and can identify their contribution to the organization, will experience higher levels of satisfaction (Wang et al., 2014).

Identified Theme 5: Communication and Recognition

The fifth and final theme to emerge, reinforced the importance of communication and recognition by leaders toward volunteer firefighters. The link between a leader having open communication and recognizing the value of followers, and transformational leadership theory, involves every construct of the theory: idealized influence (going beyond self-interest for the good of the group), inspirational motivation (talking optimistically about the future), intellectual stimulation (re-examining critical assumptions to question whether they are appropriate), and individualized consideration (helping others to develop their strengths) (Ariyabuddhiphongs & Kahn, 2017; Jelaca et al., 2016).

These links require the leader to be open to feedback; to be comfortable partaking in, and observing, positive conflict; being vulnerable to answer questions that may be controversial; and prepared to publically acknowledge superior or desired behavior. Firefighter 5 shared how communication reinforces recognition, and the benefits they see in their brigade "[chief's] door is always open out of the station. If you call him or went to see him at [workplace], he's always open, he keeps private issues private. Like if you want something kept confidential, he's really good that way".

Communication and recognition from leaders represent one of the five specific factors that influence worker turnover intention (Fazio et al., 2017). Proactive, effective, and efficient leadership is key for recruiting and retaining volunteer firefighters (USFA, 2007). Volunteer leaders play a significant role in the satisfaction that volunteers experience. Firefighter 4 provided an explanation of how appreciation is given and received within their brigade: "when you are at a job, the hierarchy is there, but [chief] is not unapproachable… you know he is not going to come down hard on you and I think that helps because you don't feel like you are being under-appreciated. You feel, from top down, like you are appreciated".

Firefighter 1 identified an environmental survey as a medium for creating more effective communication and recognition, and shared "[chief] put out an environmental survey to the brigade, just to capture the perception of the brigade in terms of leadership within the officer group and how that translates to the firefighters". Firefighter 1 continued and stated: "I think definitely working on better communication… [chief] is

trying to work on clearing that space up and being more professional in that space, even while we're on the station… And with the whole situation around better leadership and communication, I think that will also help with retaining new firefighters".

Support and recognition are strong predictors of job satisfaction for volunteers, and may be key motivators of volunteers' ongoing commitment to the organization (Bowling et al., 2015; Recognising volunteers, 2018). The perceived satisfaction of a volunteer toward their leader can provide predictive rates of successful retention (McBride & Lee, 2012). Retention rates, and the commitment a volunteer expresses toward the organization, are higher when individuals feel and perceive that leaders have a genuine concern for their, and others, welfare, and appreciate the efforts of the volunteer workforce (Iqbal & Hashmi, 2015). Firefighter 6 provided an insight into how their brigade provides services that make members feel valued and acknowledged "even though peer support and things are always offered… we always try and have a good debrief after something like [heart attack] and we call in and check in on each other after something".

An analysis by Fallon and Rice (2015), indicated that a central feature of the volunteer leader's role that distinguishes it from the private sector's standard managerial role, is that volunteer leaders supervise an unpaid workforce, with the consequence that they cannot leverage money as a source of reward and coercive power. Instead, leaders trade on their legitimate, referent, and expert power to form trusting, personal relationships with volunteers (Fallon & Rice, 2015). Such relationships are demonstrated by the leader's deep and detailed knowledge of each volunteer's background and current

life situation (Bang, 2015). In turn, Fallon and Rice (2015) found that volunteers perceive their leaders to have superior knowledge and skills that warrant respect and admiration, have the right to make requests of them, and are more satisfied in their role, with their leader, and with their organization. Firefighter 3 expanded on appreciation through responsibility, sharing that:

> To be honest, I think it's just the inclusion. Making people feel like they're included… one of the things we do is everyone has a wee part of the kit, or I guess the station, that they're responsible for, and so I guess that brings some form of inclusion that they have a purpose of being here... I think having a purpose of belonging… is a big thing in retaining people. If they feel like they contribute, they feel like they belong.

Organizational leaders should seek to understand how the empowerment of followers can lead to increased motivation, a more inclusive culture, and higher retention rates of volunteers (Iqbal & Hashmi, 2015). Sheth (2016) concluded that to increase retention in a workforce, organizational leaders need to understand, and accept, the psychological contracts that are consciously or unconsciously made between themselves and followers, and ensure that any agreed or perceived expectations are satisfied. Firefighter 5 explained a strategy used at their brigade, monthly meetings, and the benefit they see from the practice: "another big thing with our brigade is having our monthly meetings. They're a chance for everyone to get everything out in the open if they want to and it airs all the problems in the brigade I think and it allows us, as a brigade, to band together".

For volunteers, the reward experienced in exchange for service input may come from formal and informal recognition offered by a leader, or the organization. This recognition may be represented by a personal thank you from a leader for a good job, or appreciation from others through acknowledgment within the community (Laczo & Hanisch, 1999). Given that paid employees frequently quit in instances where they feel undervalued, the recognition experienced by both paid employees and volunteers becomes of great importance in their ongoing commitment to the organization (Bittschi et al., 2015). As such, in comparison to paid employees, volunteers are more likely to engage in a social exchange with the organization – labor provided in return for recognition and social connection – if positive communication and recognition are received (Chum et al., 2013).

Integration of the Quantitative and Qualitative Findings

Qualitative, quantitative, and mixed methods are the three methodologies used in research (Yin, 2017). I used a mixed methods methodology to explore the impact that the transformational leadership style and perceived organizational support had on retaining volunteer firefighters in Fire and Emergency New Zealand. Researchers use a qualitative method to explore connections among various issues, to understand the current phenomenon in a real-life context (Ruzzene, 2015); whereas quantitative researchers examine cause and effect, or the relationship and differences among variables (Watkins, 2012). I chose a mixed method approach for this study because the methodology goes beyond simply collecting quantitative and qualitative data; the methodology provides readers with the reassurance that data will be integrated, related, or mixed at a stage, or

stages, of the research process (Wright & Sweeney, 2016). This reassurance of data integration increases the validity, reliability, and rigor of the study process and results (Yin, 2017).

A benefit of conducting a mixed methods study, is the ability of a researcher to triangulate findings from a variety of instruments and highlight advantages to minimize the disadvantages experienced by each of the individual methods (Ruzzene, 2015; Yin, 2017). In this study, the integration of quantitative and qualitative results made them interdependent, resulting in higher-quality inferences. The main findings from the quantitative results presented a significant statistical relationship between POS and voluntary turnover ($p<.001$), while there was no relationship between TL and voluntary turnover ($p>.001$).

The finding of a significant relationship between POS and turnover ($p<.001$), was reinforced by the results of the qualitative component of this study, that found five key themes that were present from leaders to support volunteer retention. The themes were acknowledgment and involvement, flexibility in training, a positive culture and satisfaction, a robust vetting/induction process, and communication and recognition. In these findings, the central construct within OST of POS was present and demonstrated, where workers believe their work-organization values their contributions and cares about their well-being (Baran et al., 2012).

While the quantitative findings of this study found no relationship between TL and turnover ($p>.001$), the findings from the qualitative component did support the notion that transformational leaders have a significantly positive affect on retention, and that

those leaders exhibit the qualities of a transformational leader: idealized influence (which can be divided into attitudinal and behavioral), inspirational motivation, intellectual stimulation, and individualized consideration (Ariyabuddhiphongs & Kahn, 2017; Jelaca et al., 2016). In light of this triangulation, it can be concluded, based on the findings of the qualitative data, that transformational leaders do positively influence volunteer retention rates within volunteer fire brigades. This finding may not have been discovered through a quantitative or qualitative-only investigation, and reinforces the benefit of a mixed methods study.

Applications to Professional Practice

The purpose of this sequential explanatory mixed methods study was two-fold. The purpose of the quantitative component was to examine the relationship between (a) volunteer chief fire officers' leadership styles, and (b) volunteer chief fire officers' perceptions of organizational support, and voluntary firefighter turnover. The purpose of the qualitative component was to explore strategies that volunteer chief fire officers use to reduce volunteer firefighter turnover. The applicability of the results of this study to business practice begins with the provision of additional information in the field of volunteer turnover, specifically within Fire and Emergency New Zealand. High voluntary turnover has adverse impacts on organizational outcomes, including quality of work done, customer service and satisfaction, and the efficiency and effectiveness of operations performed by workers (Abii et al., 2013; Hancock et al., 2013). Increased voluntary turnover also influences organizational performance and sustainability (Kwon, 2014).

This study is of significant value to business practice because it provides a practical model for understanding better, the relationship between fire service leaders' characteristics, and volunteer retention. The data from this study may be of value to Fire and Emergency New Zealand because positive stakeholder leadership can lead to organizational sustainability (Harrison & Wicks, 2013). The United States Fire Administration (USFA) (2007) indicated that fire service leaders face a wide variety of challenges when managing personnel, and many leaders lack effective retention and leadership strategies.

Retaining employees and volunteers in the public services sector can contribute to the creation of a high-quality workforce (Harrison & Wicks, 2013). I will encourage fire service leaders, and use the results of this study, to promote leadership styles that positively influence the retention of volunteer firefighters, which will improve the effectiveness and reliability of fire protection to the public. The United States Fire Administration (USFA) found that fire service leaders need to create a culture for future leaders to improve the industry (USFA, 2012), a notion consistent with the theoretical frameworks of OST and TL.

The conclusions from quantitative analyses included within this study were that POS has a statistically significant relationship with voluntary turnover, whereas leadership style did not have a statistically significant relationship to voluntary turnover. The central construct within OST is POS, and refers to the degree to which workers believe their work-organization values their contributions and cares about their well-being (Baran et al., 2012). Higher-levels of organizational support may lead to workers

perceiving themselves to be a better fit with the organization, and the more likely workers are to be retained in their organization (Farrell & Oczkowski, 2009). OST is consistent with the NZFS' (2015) strategy to further value volunteers as a crucial workforce within the organization.

POS can function in one of three ways (Rhoades & Eisenberger, 2002). The first possible way regards workers who experience high levels of POS; those workers will be more inclined to reciprocate increased levels of caring about, and commitment to, the organization, if they feel high levels of organizational support are received. This link is the most significant to the current study, and may have a positive impact for organizations and the people they serve, if leaders are to ensure steps are taken to show increased value, care, and support to workers. Second, the increased positive feelings and emotional attachment felt by the worker toward the organization will facilitate workers identifying more strongly with the organization. Finally, workers who experience high-levels of POS will perceive the intent by the organization to reward them for increased performance (Rhoades & Eisenberger, 2002), which, in turn, fosters greater commitment, job satisfaction, and minimizes turnover intentions from the worker toward the organization.

Whereas organizational support theory focusses on the volunteer/follower, transformational leadership theory focusses on the manager/leader. A transformational leader focuses on encouraging and motivating followers to look beyond that of their own self-interest (Caillier, 2014; Ng, 2017), to the interests of the group for a collective, shared, and meaningful purpose. Although no significant correlations existed between the

constructs of transformational leadership and turnover, the literature is strong on the impacts of transformational leadership for positive worker turnover, empowerment, and performance. A transformational leader infuses individualized influence, which refers to the ability of a leader to make the follower sense trust, devotion, and respect toward the leader (Bass, 1985).

Transformational leaders that possess a high level of individualized influence are admired by their followers who want to emulate their leader's abilities (Eberly et al., 2017; Ibrahim et al., 2014). The transformational leadership style, as outlined by Gottfredson and Aguinis (2017) and Stinglhamber et al. (2015) has four components that remain constant: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. A transformational leader who possesses all four of these components can affect the expected and desired outcomes of the follower (Ariyabuddhiphongs & Kahn, 2017; Stelmokiene & Endriulaitiene, 2015).

In general, only 33% of volunteers commit to an organization to serve beyond one year (Laddha et al., 2014; Volunteering New Zealand, 2017). Because of the non-committal nature of some volunteers, and increasing demands from work and family life, the increased turnover within a volunteer fire brigade, area, or region, negatively affects the financial and legislative sustainability of the service to communities. To convey the significance of voluntary turnover on organizations, Goldberg (2014) concluded that the cost of employee turnover to organizations has been estimated to cost, on average, approximately 50 to 60% of the employee's salary.

The cost of volunteer firefighter turnover has significant ramifications for Fire and Emergency New Zealand, and can go beyond monetary value and losses. Many volunteer fire service brigades do not have the resources, mandate, or ability, to pay volunteers as an incentive for retention (USFA, 2015), nor is it part of the tradition and culture. Brigades that experience a high volunteer firefighter turnover rate, expend more cost because of the additional recruitment, selection, onboarding, training, and personal protective equipment costs. The results of this study may provide leaders with strategies to reduce these negative outcomes, saving resources such as time and money, and have more effective and higher performing workers.

Implications for Social Change

Through successfully implementing the results of this study, fire service leaders may contribute to positive social change by promoting the worth, dignity, and development of individual volunteers, enabling communities to be more cohesive, unified, and safer. With volunteers adequately supported and cared for in their roles, their contribution to the organization may increase, and therefore, communities benefit from a more proficient and effective emergency service. Because this study was geographically diverse, this phenomenon can be widespread, with positive social change occurring throughout the Otago region, and beyond.

Volunteering positively contributes to the well-being of the individual, community, organization, and society. The engagement of workers in not-for-profit and voluntary organizations is valuable for society because individuals from varying backgrounds expand the quality, quantity, and diversity of services (Christoph et al.,

2014), without the increased expense of an employed, paid workforce. New Zealand, as a leading nation in the contribution of time made by volunteers per capita (Volunteering New Zealand, 2017), relies on this unpaid workforce.

Even with the high number of volunteers engaged in voluntary activities in New Zealand and across the world, researchers have suggested that the available pool of volunteers may be decreasing, because of increasing demands of longer working hours, everyday life and families, and an increasing retirement age (Raymond, 2016; Smith, 2014; Stukas et al., 2016). While the available volunteer workforce is decreasing, the demand for volunteers is increasing. This demand may be as a result of an increase in the number of social causes and service organizations wanting volunteers, which is straining the already sparse volunteer resources further (Henderson et al., 2016). Because of this reliance, and the increasing fragility of an individual's time, if organizational leaders are able to positively interact with, and retain volunteers, the future of the sector may prosper.

Organizational leaders should seek to understand how the empowerment of followers can lead to greater prosperity, a more inclusive culture, increased motivation, and higher retention rates of volunteer workers (Iqbal & Hashmi, 2015). Sheth (2016) concluded, to increase retention in a workforce, organizational leaders need to understand, and accept, the psychological contracts that are consciously or unconsciously made between themselves and followers, and ensure that any agreed, or perceived, expectations are satisfied. If organizational leaders engage, train, and provide on-going development that empowers the voluntary workforce and promotes satisfaction, this may

lead to significantly higher levels of engagement (Sheth, 2016) and increase retention in the workplace.

Increasing retention is important for FENZ because the amount to outfit and train a firefighter equates to NZ$50,000 (NVFC, 2016), and the cost, on average, to replace five professional firefighters is approximately NZ$135,000 (Laddha et al., 2014). While this cost is high, the impact becomes greater with numerous other factors and costs further affecting a brigade. Through leaders possessing and demonstrating the constructs of transformational leadership and perceptions of organizational support, the high costs of training and upskilling volunteers may be reduced; therefore, funding from the New Zealand government, as the primary stakeholder of FENZ, may also be reduced. Any reduction in funding provides an opportunity for leaders to redirect investment to other community services where there are greater societal needs.

Figures from Statistics New Zealand showed that volunteer labor throughout communities contributed $3.5 billion (1.7%) to New Zealand's gross domestic product for the year ended March 2013 (Volunteering New Zealand, 2017). Because 14.1% of all volunteers complete over 50% of the total volunteer hours per annum (Volunteering New Zealand, 2018), if leaders are able to effectively undertake activities that value the volunteer and their contribution, those individuals may take their positive experiences with them to other voluntary roles, and the creation of supplementary environments where volunteers are valued may be achieved in similar organizations around the area, region, and country. This occurrence would greatly increase the positive social change

that may be achieved and further demonstrates the opportunity that fire service leaders have to influence New Zealanders, and New Zealand society, for the better.

Recommendations for Action

Employee and volunteer turnover can diminish the cohesion and productivity that an organization achieves over time (Wang et al., 2014). Fire and Emergency New Zealand consists of 12,547 individual firefighters, of which more than 11,000 are volunteers (NZFS, 2015). Throughout New Zealand, urban, suburban, and rural communities rely on the voluntary service that unpaid firefighters give for training, community events, and emergency situations. The New Zealand government, as the primary stakeholder of Fire and Emergency New Zealand, do not budget to pay every firefighter throughout the country, nor is that notion aligned to the voluntary culture of the country and organization (NZFS, 2015). With this in mind, the reliance of a volunteer workforce, while positive for financial reasons, does have its challenges regarding retention, performance, and sustainability.

The quantitative conclusions from the data analyses of this study were that POS had a statistically significant positive relationship to voluntary turnover. Because of this positive relationship, efforts should be made by fire service and volunteer leaders to ensure the worth and dignity of followers is exemplified through POS actions, policies, and culture. POS is the degree to which workers believe their work-organization values their contributions and cares about their well-being (Baran et al., 2012). Higher-levels of organizational support may lead to workers perceiving themselves to be a better fit with the organization, and the more likely workers are to be retained in their organization

(Farrell & Oczkowski, 2009). The promotion of POS may be implemented through ongoing leadership conferences; establishing effective, two-way feedback processes; and, understanding the benefits of such behavior.

Although there was no significant relationship between volunteer chief fire officers' transformational leadership characteristics and voluntary turnover, efforts should be made by leaders to understand and promote transformational leadership constructs. Leaders who portray the behaviors of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration, do experience higher levels of performance, satisfaction, and retention behaviors from followers (Dimitrov & Darova, 2016). These recommendations may be implemented through leadership conferences, individual coaching, and a pre-selection criterion that outlines desired behaviors, attributes, and experiences of new role-holders that reflect the transformational leadership constructs.

The qualitative conclusions for improved volunteer retention were family acknowledgment and involvement, flexibility in training, a positive culture and satisfaction, a robust vetting/induction process, and communication and recognition. Fire service leaders should focus on policy development, process improvement, and cultural promotion, to provide local leaders with the provision of improved strategies for retention. While generic policies may be developed, it should be noted that localizing implementation may produce more buy-in and generate greater successes. These recommendations may be implemented through leadership conferences, one-on-one

coaching and mentoring sessions with volunteer chief fire officers, and within regional working groups.

In the current FENZ environment, where an amalgamation of rural and urban fire services commenced in 2017, the recommendations for reduced turnover and increased follower recognition are timely. In a reorganization, the acceptance of norms and behaviors assist in establishing a cohesive culture where leaders and followers are empowered. The results from both the quantitative and qualitative components will assist leaders in establishing such positive culture norms and moving forward with the amalgamation.

Recommendations for Further Research

Although prior researchers examined the challenges of worker retention in volunteer fire services (Frattaroli et al., 2013; Haug & Gaskins, 2012), the current literature does not include recommended strategies for volunteer fire service leaders to work with employees to prevent turnover, nor is the literature specific to the New Zealand environment. A limitation of this study was that the experiences and strategies of volunteer chief fire officers' regarding retention might not be transferable to all Fire and Emergency New Zealand brigades. To address this limitation, the first recommendation is for further research by doctoral students and scholars alike, to focus on New Zealand-specific geographic areas and leadership models that extend knowledge within the voluntary sector.

Leadership perceptions, roles, and actions, may differ between geographic areas. This study focused on leaders and followers within the East Otago area of the Otago

region of FENZ. Differences in cultures and behaviors may exist in multiple contexts (Bodolica & Spraggon, 2015). This limitation within the current study may impede opportunities to generalize the findings to other geographic areas and regions within FENZ, and indeed, to other organizations that involve volunteers as a workforce (Kirkwood & Price, 2013). To address this limitation, further research by doctoral candidates and scholars should focus on a larger sample, and randomize the sample selection to encompass responses from more than area or region, to better understand collective cultural norms and similarities.

The experiences and perspectives of the researcher have the potential of bringing bias to data (Mugge, 2016). As a past volunteer firefighter with almost 5 years of service, (albeit in a different region of Fire and Emergency New Zealand and more than 6 years ago) I have a relationship with some fire service leaders; therefore, it was crucial that I avoided biases in fulfilling my responsibilities. Mitigation of potential researcher bias can be achieved through adhering to a specific protocol for each interview (Jorgensen et al., 2016). While this was the case, to address this limitation, further studies should be undertaken by researchers with experience of the fire service, and researchers without fire service experience, so that biases can be mitigated and results may become increasingly validated and triangulated.

A final limitation of this study was that leaders rated themselves on the MLQ scale. The perceptions of leaders on their own behaviors and values are bound in trust and accuracy. To address this limitation, future researchers should survey followers and leaders on the MLQ to triangulate responses, as well as develop other tools and rating

scales to gather information on leader attributes to correlate data. Doctoral candidates may use the results of this study as a basis to build on future voluntary turnover research, through investigating other areas and cultures of the world to find similarities and differences to contrast.

Reflections

As a past volunteer firefighter, I was acutely aware of the challenges that face volunteers and volunteer leaders, and the conflicting demands of work-life balance within the fire service. In addition, I have been a leader of volunteers in several paid roles within the volunteer and not-for-profit sector for more than 5 years. While these roles were not in emergency services, the challenges remain similar for volunteers regarding family demands, work commitments, and the value perception that an individual believes to be present.

I had four preconceptions prior to commencing this study. In reviewing the literature on transformational leadership and the positive outcomes a leader can garner with the portrayal of behaviors, I commenced the quantitative component of this study with the preconception that transformational leadership would have a statistically significant relationship with voluntary turnover rates. Particularly when several sources stated a transformational leader who possesses all four of the components (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration) can affect the expected and desired outcomes of the follower and positively affect turnover within organizations (Stelmokiene & Endriulaitiene, 2015). For my preconception toward TL and turnover, the results of the study did not support my

initial thoughts. However, the value of leaders exhibiting transformational leadership behaviors should still be acknowledged as advantageous and of benefit to voluntary organizations.

In reviewing the literature on perceptions of organizational support and the positive outcomes a leader can garner with the portrayal of behaviors, I commenced the second aspect of the quantitative component of this study with the preconception that POS would have a statistically significant relationship with voluntary turnover rates. Again, literature supported the notion that higher levels of organizational support may lead to workers perceiving themselves to be a better fit with the organization, and the more likely workers are to be retained in their organization (Baran et al., 2012; Chung, 2017; Farrell & Oczkowski, 2009). For my preconception toward POS and turnover, the results of the study supported my initial thoughts, and provided detail on the importance of POS on voluntary turnover.

For the qualitative component of this study, I commenced my investigation with the preconception that transformational leaders would have pre-existing, embedded strategies within their brigades that support volunteers, involve and promote family inclusion, are flexible to volunteer needs, and recognize the contribution of workers. The literature supported the notion that transformational leaders who exhibit the behaviors, establish environments that are conducive to retention and make individuals feel a part of something larger than themselves. For my preconception toward TL and turnover, the results of the study supported my initial thoughts, with the five themes that were discovered: family acknowledgment and involvement, flexibility in training, a positive

culture and satisfaction, a robust vetting/induction process, and communication and recognition.

My final preconception, that has turned to a reflection, was that of admiration and thanks for the work volunteers undertake each day. I went into this study believing in the good work of volunteers, and I had the belief that volunteer leaders want to provide environments where volunteers feel valued and want to remain involved. This preconception was supported by the process I undertook, and the results of this study, because I was able to experience, first hand, the passion and desire of members to ensure the sustainability and good name of the organization was fostered. I am grateful for these experiences, and I am grateful that my belief in volunteer leaders was overwhelmingly supported.

Conclusion

The purpose of this sequential explanatory mixed methods study was two-fold. The purpose of the quantitative component was to examine the relationship between (a) volunteer chief fire officers' leadership styles, and (b) volunteer chief fire officers' perceptions of organizational support, and voluntary firefighter turnover. The purpose of the qualitative component was to explore strategies that volunteer chief fire officers use to reduce volunteer firefighter turnover. The theoretical frameworks that grounded this study were transformational leadership and organizational support theory.

The quantitative results presented a significant statistical relationship between POS and turnover ($p<.001$), and no relationship between TL and turnover ($p>.001$). The qualitative results presented five themes that support volunteer retention. The themes

were family acknowledgment and involvement, flexibility in training, a positive culture and satisfaction, a robust vetting/induction process, and communication and recognition. The implications for positive social change include providing fire service leaders in the area, region, and across the country with improved leadership strategies to retain volunteer firefighters, contributing to a high-quality workforce that serves New Zealand communities.

From analyzing the results and reflecting on the outcomes, I conclude that volunteer leaders want to provide followers with an environment that fosters care and support, and those leaders with higher perceptions of organizational support, and those who exhibit transformational leadership behaviors, experience positive turnover rates. The results of this study strongly indicate that volunteer fire service leaders who actively portray the components of POS (caring for the well-being of followers) and transformational leadership (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration) will experience greater levels of satisfaction that lead to followers wanting to remain within the brigade, and contribute to the vision and mission of the organization.

Efforts, therefore, should be made by fire service leaders to develop policies and processes to support the promotion of family acknowledgment and involvement, flexibility in training, a positive culture and satisfaction, a robust vetting/induction process, and communication and recognition within brigades. Furthermore, feedback processes should be developed to understand the current, and ongoing, perceptions of volunteer chief fire officers, so organizational leaders may seek to improve perceptions

and continue generating higher levels of POS. Finally, a pre-selection criterion that outlines desired behaviors, attributes, and experiences of new role-holders in leadership positions, consistent with the transformational leadership constructs, should be developed and implemented.

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Appendix A: Interview Protocol

The interview protocol includes:

1. Introductions and outline of the interview;
2. Present, review, and answer any questions from the participant regarding the consent form;
3. If signed, provide a copy of the signed consent form to the participant;
4. Advise participant and enable the Apple iPhone 7 recording feature and select record on the Panasonic RR-US300 audio recorder;
5. Note the location, time, and date for the record;
6. Ask the first interview question through to the last;
    a. What strategies does the volunteer chief fire officer use to reduce volunteer firefighter turnover?
    b. What strategy used by the volunteer chief fire officer works best in reducing volunteer firefighter turnover?
    c. How do other firefighters respond to different ways of reducing volunteer firefighter turnover?
    d. How does volunteer firefighter turnover affect the brigade?
    e. Are there any further comments you wish to make regarding volunteer firefighter turnover within the brigade?
7. Ask any additional questions to follow-up from key themes identified through participant verbalization;
8. End the interview and thank the participant;

9. Confirm other (non-human) sources of data collection and member checking process;
10. Turn off Apple iPhone 7 and Panasonic RR-US300 audio recorder;
11. End.

Appendix B: Multifactor Leadership Questionnaire (MLQ)

This questionnaire is to determine what leadership style you exhibit at work. Please answer all questions. Please complete the questionnaire in a setting that will ensure comfort and privacy.

Due to copyright laws, this dissertation cannot include the entire MLQ instrument. Therefore, a sample of questions is included.

Key:	0 = Not at all	2 = Once in a while	3 = Fairly often	4 = Frequently, if not always

Transformational Leadership Styles

Idealized Influence (Attributes)	I go beyond self- interest for the good of the group.	0	1	2	3	4
Idealized Influence (Behaviors)	I consider the moral and ethical consequences of decisions.	0	1	2	3	4
Inspirational Motivation	I talk optimistically about the future.	0	1	2	3	4
Intellectual Stimulation	I re-examine critical assumptions to question whether they are appropriate	0	1	2	3	4
Individualized Consideration	I help others to develop their strengths.	0	1	2	3	4

Transactional Leadership Styles

Contingent Reward	I make clear what one can expect to receive when performance goals are achieved.	0	1	2	3	4
Management by Exception: Active	I keep track of all mistakes	0	1	2	3	4

Passive/Avoidant Leadership Styles

Management by Exception: Passive	I wait for things to go wrong before taking action.	0	1	2	3	4
Laissez- Faire	I avoid making decisions.	0	1	2	3	4

These questions provide an example of the items that are used to evaluate leadership style. The MLQ is provided in both self and rater formats. The self-form measures self-perception of leadership behaviors.

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To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material for his/her research:

Instrument: ***Multifactor Leadership Questionnaire***

Authors: ***Bruce Avolio and Bernard Bass***

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Five sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

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Sincerely,

Robert Most
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Appendix C: 8-item Survey of Perceived Organizational Support (SPOS)

Listed below are statements that represent possible opinions that *you* may have about working at Fire and Emergency New Zealand. Please indicate the degree of your agreement or disagreement with each statement by selecting which answer best represents your point of view about the organization. Please choose from the following answer options:

0	1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree

1. The organization values my contribution to its well-being.
2. The organization fails to appreciate any extra effort from me.
3. The organization would ignore any complaint from me.
4. The organization really cares about my well-being.
5. Even if I did the best job possible, the organization would fail to notice.
6. The organization cares about my general satisfaction at work.
7. The organization shows very little concern for me.
8. The organization takes pride in my accomplishments at work.

Appendix D: Interview Questions

The following interview questions will be asked of five local volunteer firefighters who have a transformational leader, to answer the qualitative research question.

Questions Regarding Strategies to Reduce Voluntary Turnover

1. What strategies does the volunteer chief fire officer use to reduce volunteer firefighter turnover?
2. What strategy used by the volunteer chief fire officer works best in reducing volunteer firefighter turnover?
3. How do other firefighters respond to different ways of reducing volunteer firefighter turnover?
4. How does volunteer firefighter turnover affect the brigade?
5. Are there any further comments you wish to make regarding volunteer firefighter turnover within the brigade?