ATTRITION IN UNITED STATES AIR FORCE MQ-9 INSTRUCTOR PILOTS: A TRANSCENDENTAL PHENOMENOLOGICAL STUDY

by

Isabelle Ione Perry

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

Liberty University

2022

ATTRITION IN UNITED STATES AIR FORCE MQ-9 INSTRUCTOR PILOTS: A TRANSCENDENTAL PHENOMENOLOGICAL STUDY

by Isabelle Ione Perry

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

Liberty University, Lynchburg, VA

2022

APPROVED BY:

Laura Jones, Ed.D., Committee Chair

Sarah Pannone, Ed.D., Committee Member

Abstract

The purpose of this transcendental phenomenology was to describe the shared experiences of MQ-9 instructor pilots who were considering discontinuing military service at the USAF's MQ-9 FTU. Discontinuation of military service was defined as separation at the expiration of their Active Duty Service Commitment. The theories guiding this research were Vroom's expectancy theory, as it connects the relationship between military members' expectations from their employers and resultant attrition rates, and Herzberg et al.'s (1959) motivation-hygiene theory, as it explains the disconnect between a military member's motivation, well-being, and work environment. This research followed a transcendental phenomenological design. Purposive and snowball sampling were used to select 10 MQ-9 instructor pilots from a pool of roughly 200. This study focused on a central research question that examined shared experiences of MQ-9 instructor pilots who were considering discontinuing their military career in the USAF. Sub-questions assessed the decision-making process concerning career termination, the challenges their career created for family quality of life, and their challenges in maintaining work/life balance. Data were collected via interviews, protocol writing, and focus groups. Data analysis followed Moustakas' transcendental phenomenological analysis design through bracketing, phenomenological reduction and horizonalization, imaginative variation, and the synthesis of textural and structural descriptions. Upon completion of analysis, three themes emerged among participants, which included *workload, instability*, and *mental health*. The results revealed participants felt that additional duties decreased workplace satisfaction, compensation was deemed adequate but not enough to stay, mental health stigmas continued to prevent healthcare usage, and desirable assignment locations could prevent unhappiness.

Keywords: attrition, education, instructor pilot, MQ-9, United States Air Force

Copyright Page

Dedication

I dedicate this dissertation to my newborn son, Dean, who spent nine long months in the womb listening to me conduct data collection and write this dissertation. By no choice of his own, he spent countless hours keeping me company while I worked on this research. Much of the first month of his life was spent on my lap while I edited and prepared to defend. He was just as involved as I was.

I also dedicate it to my wonderful husband, Dalton. Without his support throughout my doctoral education I wouldn't have been able to finish. His encouragement allowed me to manage the many long days and nights and the weight of my studies over the last three years. Thank you for always believing in me, even when I didn't.

Acknowledgments

I would like to thank my father-in-law, Darren, who encouraged me to write. You once jokingly asked me to write a paper just for you. Here it is, only a few years late.

I would like to thank Dr. Jones and Dr. Pannone for their wisdom, encouragement, and knowledge throughout the dissertation process. Your flexibility and understanding while I managed the birth of my first child was invaluable. You both made me want to produce a quality piece of writing and made it easy to enjoy learning.

I would finally like to thank the military leaders I have served under throughout this process. Their flexibility in allowing me to complete coursework in the slow times of the duty day, to take time off during stressful portions of my studies, and their encouragement to better myself was more than they were obligated to give and immensely appreciated. Pacs, Woogie, Fuego, Hook, Trax, Fever, and Deuce: your leadership, mentorship, and guidance were a huge part of my ability to complete this doctorate.

Table of Contents

List of Tables

List of Abbreviations

Active Duty Service Commitment (ADSC)

Air Education and Training Command (AETC)

Department of Defense (DOD)

Formal Training Unit (FTU)

Post-Traumatic Stress Disorder (PTSD)

Reserve Officers' Training Corps (ROTC)

Remotely Piloted Aircraft (RPA)

United States Air Force (USAF)

United States Government Accountability Office (USGAO)

Unmanned Aerial System (UAS)

Unmanned Aerial Vehicles (UAV)

CHAPTER ONE: INTRODUCTION

Overview

The United States Air Force (USAF) is facing a significant retention problem that has continued to grow over time (Grosso, 2017). One career field that has faced the brunt of this manning crisis is the remotely piloted aircraft (RPA) community, and more specifically, the MQ-9 Reaper instructor pilot core (United States Government Accountability Office [USGAO], 2020). Retention has been declining, while demand for the aircraft's use in combat has been increasing, leading to a volatile situation for which a solution has yet to be found (Terry et al., 2019). This transcendental phenomenology aims to examine the shared experiences of MQ-9 instructor pilots at the USAF's MQ-9 formal training unit (FTU) concerning the termination of their career. Without a thorough understanding of why the retention problem exists and potential solutions to right it, there are serious implications for the welfare and health of MQ-9 instructor pilots, as well as for national security (Bressett, 2018; Hardison et al., 2017). Although this research falls heavily in the realm of national defense, it also offers insight into the educator retention problem that has been plaguing schools for decades (De Stercke et al., 2015; Gonzalez-Escobar et al., 2020). To understand the shared experiences of these MQ-9 instructor pilots, chapter one offers background information on how these retention problems arose, the related historical, social, and theoretical contexts, and my motivation behind conducting this research. Additionally, the problem and purpose statements, the significance of the study, and the resultant research questions are discussed.

Background

Demand for pilots in the remotely piloted aircraft (RPA) career field has grown significantly over the last two decades (Terry et al., 2019). This is due to the RPA's extreme

applicability in both peace and wartime, as well as the ability to keep American lives out of harm's way (Aggarwal & Kumar, 2020; Keane & Carr, 2013; Rinehart, 2017). Unfortunately, the supply of military pilots has been declining for years (Grosso, 2017). Although several factors have influenced this decline, it seems as if few interventions have been put into place, and the current attempts have had little success (Bressett, 2018). Pilot manning for the USAF's premier RPA, the MQ-9 Reaper, is at a historic low, with instructor pilot manning being even worse (USGAO, 2020). With the pilot manning of an integral combat aircraft being so low, there are serious implications for the United States' ability to maintain its air superiority if the root cause of the issue is not identified (Grieco, 2018; Kreuzer, 2015).

Historical Context

The United States military has experienced recurrent retention problems throughout modern history (Sminchişe, 2016; Wilcove et al., 1991). Retaining military members has been an uphill battle, with research indicating the need for retention models and predictions since the 1980s (Warner, 1981). For the military aviation community, problems retaining flight crew have been identified as far back as 1968, with retention during flying training being noted as a significant problem (Boyd & Boyles, 1968). This problem became so significant that senior leaders publicly recognized that: "no personnel issue at the moment is more alarming, and none carries greater symbolic impact than an Air Force that is losing its pilots" (Sniteman, 1980, p. 2). Regardless of how alarming this problem was, the pilot retention problem has not been solved to date (Asch, 2019; Sweeney, 2015; Thompson, 2018). Equally concerning is the fact that this retention problem does not only apply to manned assets but also the more recently developed unmanned aircraft, with some RPA units seeing staffing shortages of up to 20% (Hardison et al., 2017; USGAO, 2020).

Although one singular reason behind retention problems has not been pinpointed, it is believed that retention issues are likely due to many factors. These factors include family difficulties, uncompetitive pay rates, and leadership problems (Falk & Karamcheva, 2018; Heilmann et al., 2009; Mailey et al., 2018). This retention issue is pronounced in the USAF's pilot community, where it is displayed through the inability to meet the expectations of Congress (Thompson, 2018; USGAO, 2020). Though the USAF has been working to address this, it has yet to solve the issues underlying the retention problem that drives many pilots to leave before the 20-year retirement point (Asch, 2019; Hensel, 2016). Although this is a problem for all of the USAF's aircraft, this problem is increasingly apparent in the RPA community, which experiences high levels of unhappiness and career dissatisfaction (Hardison et al., 2017). This retention issue has become the most visible at the USAF's MQ-9 FTU, where there is a significant understaffing of instructor pilots. With only 75% of instructor positions filled in 2019 and as many as 30% of instructors terminating their career per year, instructor pilots are over-burdened with the responsibility of instructing full-time, as well as maintaining multiple additional duties (USGAO, 2020). Much of this lack of manning is thought to be caused by the overworked operational units being unable to send qualified instructors to the USAF's MQ-9 FTU, which has resulted in a self-perpetuating problem that does not seem to have an end in sight (Hardison et al., 2017).

Social Context

The social context of the MQ-9 instructor pilot retention problem appears to stem from two areas, culture and mental health stigmas (Hardison et al., 2017; Tennies, 2019). It is likely that these social issues are interconnected, but they both present problems in the MQ-9 instructor pilot community. Organizational culture, a highly discussed topic in business literature, is known

to be one of the key influencers of workplace cohesion and employee satisfaction (Nikpour, 2017). In the military context, organizational culture has been noted as a key indicator of the likelihood of re-enlistment, member readiness, happiness, and performance capability (Booth-Kewley et al., 2017).

Positive workplace culture can improve self-esteem and decrease employee stresses, as well as increase the commitment that employees feel toward their employers (Kim et al., 2020; Naz et al., 2020). Conversely, a negative organizational culture can increase employee anxiety, deteriorate trust, and halt communication flow (Van Rooij & Fine, 2018). While this information is well known due to its popularity in organizational and leadership literature, organizational culture can be difficult to control. It is well known that military organizational culture can be incredibly toxic, and the aviation community is no exception. Caused by extreme levels of stress that MQ-9 instructor pilots experience and high levels of responsibility they are assigned, the culture is often known as difficult to persevere through (Chappelle et al., 2014; Tennies, 2019).

This difficult work environment and potentially negative culture are only further compounded by the severe mental health difficulties that MQ-9 pilots face (Armour & Ross, 2017). All military members are involved in the business of war and killing, but unlike most of their counterparts, MQ-9 pilots physically take part in and see it occur every day (Hardison et al., 2017). Being exposed to this type of trauma can have significant mental health repercussions if it is not treated properly (Chappelle et al., 2014). The commonality of the uncomfortable images that MQ-9 pilots have to experience has been shown to cause higher levels of mental health problems, like post-traumatic stress disorder (PTSD) and depression (Armour & Ross, 2017; Gal et al., 2016). This type of stress is higher in MQ-9 pilots than in other aircraft pilots, highlighting

the life-or-death importance of research that can aid in identifying which stressors in the community can be eased (Stahl, 2015).

Theoretical Context

When attempting to understand the attrition of MQ-9 instructor pilots, it is valuable to recognize both the motivations behind why an individual would choose this career field, as well as why they would choose to leave it. Two theories that have been widely used to understand the workplace and individual motivational factors are Vroom's (1964) expectancy theory and Herzberg et al.'s (1959) two-factor theory. Although these theories have been applied numerous times since their origination to understand the foundations of motivation, applying them in this context can provide a deeper understanding of how these theories apply to the modern world and workplace.

Expectancy Theory. One key theory that guided this research is Vroom's (1964) expectancy theory. This motivational theory provides a basis for understanding what creates motivation in an individual, which Vroom (1964) defined as the process a person undertakes when determining which voluntary activity they will prioritize completing. It proposes the idea that there is a relationship between what effort a person is willing to put into their work and the resultant reward they expect to receive in turn. It suggests that among the choices that an individual has, they will choose to complete the objective they perceive will provide the greatest reward or outcome. Vroom (1964) postulated that workplace motivation would be influenced by the three premises of expectancy (E), instrumentality (I), and valence (V) in the formula: motivation = E * I * V, where expectancy is a belief that effort improves performance, instrumentality is the belief that hard work results in a reward, and valence is the value an employee perceives an outcome to be worth.

Although expectancy theory has been empirically tested in federal workplaces, nursing, and civil service, allowing for a better understanding of an employee's motivational factors and how organizations can capitalize upon it (Candela et al., 2015; Leonina, 2017; Park & Kim, 2017), it has yet to be applied in the context of aviation education. As expectancy theory recognizes the fact that each employee will be motivated by completely different factors than others, and MQ-9 instructor pilots fall into a niche category of military instructors that little research has examined, this study contributed to the validity of expectancy theory in varying settings (Purvis et al., 2015). Namely, this study expanded upon how expectancy theory can be applied in the education, military, and aviation fields.

Two-Factor Theory. An additional theory that guided this study was Herzberg et al.'s (1959) two-factor theory. This theory, also called motivation-hygiene theory, offers a different and complementary view on motivation than expectancy theory. The two-factor theory suggests that workplace factors can both positively and negatively impact an employee's job satisfaction, which can influence their intention to remain in their career (Alshmemri et al., 2017). Herzberg et al. (1959) suggested that the two types of factors that influence an employee's job satisfaction are motivational factors and hygiene factors. Motivational factors include those intrinsic influences that impact self-actualization and personal growth, like an employer's recognition of the employee, increased responsibility, opportunities for advancement, awards, among others. Conversely, hygiene factors are made up of extrinsic factors that may influence unpleasant workplace scenarios like company policies, an employee's relationships, compensation, or work conditions (Herzberg, 1966, 2003). As both of these types of factors were found to influence satisfaction, it was posited that the motivation factors were related to employee attitude, while

hygiene factors were inherent to the work and workplace itself (Alshmemri et al., 2017; Stello, 2011).

As Herzberg et al.'s (1959) theory suggests, meeting motivational needs can influence satisfaction, while meeting hygiene needs merely prevents dissatisfaction. The application of this theory added value to this study, as both hygiene and motivational factors at the USAF's MQ-9 FTU were identified as significantly lacking (Chappelle et al., 2014; USGAO, 2020). Although this theory is often touted as one of the most validated theories in motivational research, it has yet to be applied in a setting that offers insight to military, education, and aviation employees all at once, offering a unique perspective within the scholarly literature (Stello, 2011).

Problem Statement

The problem is that the United States Air Force is facing a manning crisis, particularly among its rated officers, at a rate that it cannot sustain through training replacement pilots alone (Bressett, 2018; Switzer, 2020; Terry et al., 2019). Although this problem is not new, it has been growing exponentially over the past decade. In 2017, senior Air Force officers testified to congress that the branch was facing a shortage of over 1500 pilots that would only continue to increase (Grosso, 2017). This problem does not only exist in the manned aircraft community but also in the RPA community, with the field being critically undermanned since its inception (Talafuse et al., 2019; USGAO, 2020).

One of the factors of attrition within the military aviation field is that commercial airlines offer higher pay rates and more stable schedules (McGee, 2015; Sweeney, 2015). Additionally, the significant emotional, physical, and social detriments that are associated with the military aviation career field also take a substantial toll on pilots' well-being, which generates further attrition (Chappelle et al., 2014). These factors, among others, have led to 30% of RPA pilots

needing replacement each year and instructor positions at the MQ-9 FTU being staffed to less than 75% of the requirement, which has further created a cyclical problem of understaffing across the community (USGAO, 2020). Although there is a strong base of scholarly research that highlights the many problems facing the MQ-9 enterprise, no research exists that examines the shared experiences that are driving high attrition rates of the MQ-9 instructor core. This gap in the research presents a significant issue for the USAF in that they are unable to understand the reasons behind the attrition problem, thus reducing the likelihood of finding a solution.

Purpose Statement

The purpose of this transcendental phenomenology was to describe the shared experiences of MQ-9 instructor pilots who were considering discontinuing military service at the USAF's MQ-9 FTU. Discontinuation of military service was defined as an MQ-9 instructor pilot's separation from the Air Force at the expiration of their Active Duty Service Commitment (ADSC). The theories guiding this research were Vroom's expectancy theory, as it connects the relationship between military members' expectations from their employers and the resultant attrition rate, and Herzberg et al.'s (1959) motivation-hygiene theory, which explains the disconnect between a military member's motivation, well-being, and work environment.

Significance of the Study

While it is valuable to the USAF and the United States military as a whole, this research acted two-fold and provided value to the educational community as well. Various studies have indicated that the educational career field is facing retention problems across the globe (De Stercke et al., 2015; Gonzalez-Escobar et al., 2020; Karsenti et al., 2013). Similar to the pilot retention problem, this issue is not new, with data showing teacher attrition as high as 50% dating back to 2003 (Ingersoll & Smith, 2003). In more recent years, this problem has only

increased, with many teachers leaving the career field before their fifth-anniversary teaching (Gonzalez-Escobar et al., 2020). Much like the military, the educational system is struggling to pinpoint why teachers are leaving in droves, but the factors are similar to why pilots are leaving: better compensation available elsewhere, poor leadership, and workplace disparities that ultimately lead to poor quality of life (Geiger & Pivovarova, 2018; Thibodeaux et al., 2015; Tickle et al., 2011). As the subjects of this transcendental phenomenology were both pilots and educators, this research illuminated a shared problem-set that may highlight actions that both the aviation and education career fields can take to improve retention rates.

Practically, the significance of this study applied to the pilots and their families, the military as a whole, and the nation's security. From the perspective of the military members and their families, this study could open up communication channels with upper leadership that could vastly improve their quality of life. With MQ-9 instructor pilots experiencing high levels of career dissatisfaction, mental health problems, and marital or familial dysfunction, this insight gained from this research could save lives (Hijazi et al., 2019; Mailey et al., 2018; Ogle et al., 2018). Further, the USAF has been under a large amount of pressure from the government to rectify its manning problems (Thompson, 2018; USGAO, 2020). If this research offers an opportunity to better understand the underlying causes of attrition, there is the potential that a solution could be found. Expanding on that, as the retention problem is resolved, the nation will face fewer worries about national security. With enough pilots to maintain the MQ-9 community, congress' desired levels of combat support are more likely to be met (Department of Defense, 2012).

Theoretically, this research was significant in its ability to contribute to the scholarly literature surrounding both motivation and employee turnover. As this research used Vroom's

(1964) expectancy theory and Herzberg et al.'s (1959) motivation-hygiene theory and applied them in a military setting where the literature on turnover intent and motivation is lacking, this research expanded the scope of available knowledge. Throughout much of the scholarly research, these motivational theories have been applied in quantitative research settings. This research offers the opportunity for further application of both these theories in a qualitative setting. Finally, because MQ-9 instructor pilots are both educators and military members, multiple theoretical fields can benefit from the information gathered through this research.

Research Questions

The USAF's MQ-9 FTU provides an outstanding opportunity to understand the "why" behind the increasingly high attrition rates seen throughout the military. As the ADSC for RPA pilots occurs six years into their career (Terry et al., 2019), the USAF's MQ-9 FTU is often the location at which MQ-9 instructor pilots spend their final years before facing the decision of whether they will continue their military service. It is critical that the USAF understands the reasoning behind these members' decisions to develop solutions to the attrition problem. Otherwise, the problem's root causes will continue to be unacknowledged and uncorrected. In order to discover where the desire to separate from their military career, this study posed the following central research question and three sub-questions:

Central Question

What is the shared experience of USAF MQ-9 instructor pilots who are considering discontinuing their military career?

This central research question was created in order to build an understanding of the shared experiences of USAF MQ-9 instructor pilots who consider terminating their careers. Both Herzberg et al. (1959) and Vroom's (1964) motivational theories note that many factors

contribute to whether or not an employee is satisfied in their workplace and that both the workplace and the influence of others in the workplace contribute to overall job satisfaction or dissatisfaction. The formatting of the central research question and the following sub-questions allowed this research to be framed in a manner that allowed numerous influences on career decision-making to be examined and themes to be identified.

Sub-Question One

What is the decision-making experience of USAF MQ-9 instructor pilots who are considering discontinuing their military career?

This first sub-question sought to identify which factors in the MQ-9 career field motivate USAF MQ-9 instructor pilots' decision-making when considering terminating their careers. Vroom's (1964) expectancy theory defines the connection between what an employee expects to receive in return for their work and their resultant effort. However, a key piece of this theory that is often overlooked is the fact that individuals value different things in comparison to what their coworkers may find valuable (Purvis et al., 2015). Some individuals may value their compensation or retirement benefits more than other factors, while others value the leadership opportunities and avenues for personal growth they are given, among many others. Further, Herzberg et al.'s (1959) two-factor theory suggests that unmet workplace needs, workplace dissatisfaction, or burnout can be influential in an employee's career decision-making. With both theories in mind, this sub-question offered an opportunity to build an understanding of what internal and external factors were the most MQ-9 influential in instructor pilots' decision-making process, potentially providing an avenue for the USAF to improve what is offered in return for their service.

Sub-Question Two

How do USAF MQ-9 instructor pilots describe the impact of their career on their family's quality of life?

The second sub-question moved outside of the workplace and aimed to investigate the influence of family quality of life on MQ-9 instructor pilots and their career decision-making. Numerous scholarly studies have identified the fact that a work-home conflict, or situations in which the pressures of the workplace and family life become difficult to balance, are extremely influential in an individual's job satisfaction and overall happiness (Eby et al., 2005; Kossek et al., 2011; Mailey et al., 2018). Vroom's (1964) expectancy theory suggests that an individual's workplace motivation is influenced by different motivational factors. Some instructor pilots may value the reward of ample time to spend with their family as more influential than other workplace rewards, and thus the influence of family quality of life on USAF MQ-9 instructor pilots' career decision-making should be considered. Additionally, Herzberg et al. (1959) recognize motivational factors like personal growth and self-actualization influence an employee's motivation in the workplace. As the personal growth and self-actualization of an individual are inherently connected to that of their family, this question offered an opportunity to take the family's quality of life into account. The inclusion of this sub-question allowed for this research to highlight the shared experiences of MQ-9 instructor pilots regarding their family quality of life.

Sub-Question Three

How do USAF MQ-9 instructor pilots describe the challenges of creating work/life balance in their career?

Sub-question three examined the work/life balance that MQ-9 instructor pilots experience and allowed an understanding of the experiences that influence their decision to terminate their

military career. Work/life balance has been identified as a significant contributor to employee satisfaction and subsequent retention, with career fields that allow for a balance between work and an employee's other needs seeing lower rates of turnover (George, 2015; Karatepe, 2013; Kossivi et al., 2016). Herzberg et al.'s (1959) two-factor theory suggests that workplace satisfaction can influence an individual's intent to remain in their current career, thus highlighting the theoretical value of this question. Further, Vroom's (1964) expectancy theory suggests that one of the key influences of an individual's workplace motivation is their personal goals, which may not all be work-related. If the instructor pilot values being able to balance their workload with the opportunity to have balanced free time and opportunities outside of work, their work/life balance experiences should be examined. This sub-question allowed for a robust understanding of the central research question, highlighting the shared experiences in challenges with work/life balance and the subsequent influence on attrition.

Definitions

1. *Active Duty Service Commitment*: A binding contract shared between an individual the United States Air Force that entails their required length of service (Bressett, 2018).
2. *MQ-9 Reaper:* An armed, multi-mission aircraft that is remotely operated via satellite (United States Air Force, 2015).
3. *Remotely Piloted Aircraft:* An unmanned aircraft that is operated via satellite (ICAO, n.d.)

Summary

Through the background information that this first chapter provided, it has become increasingly apparent that our nation's security is reliant upon a technological system whose human component has not been adequately supported. The problem is that the United States Air

Force is facing a manning crisis, particularly among its rated officers, at a rate in which they cannot sustain through training replacement pilots alone (Bressett, 2018; Switzer, 2020; Terry et al., 2019). If the United States hopes to maintain its capability to solve these problems and thus bring technological domination to its enemies and preserve its dominant military force, it must reverse the previous failures it has experienced in supporting RPA training and operations (Bressett, 2018; USGAO, 2020). Thus, the purpose of this transcendental phenomenology was to describe the shared experiences of MQ-9 instructor pilots who were considering discontinuing military service at the USAF's MQ-9 FTU, with the intent of describing the current shortcomings that must be rectified if there is to be a future in the RPA enterprise. If a solution to current attrition rates cannot be identified and corrected, the nation risks losing military objectives and American lives (Kreuzer, 2015). Through the application of the central research question and three sub-questions, this research provided an understanding of the shared experiences of MQ-9 instructor pilots who terminate their careers and a potential pathway back to a more stable MQ-9 community.

CHAPTER TWO: LITERATURE REVIEW

Overview

A methodical review of scholarly literature is conducted to examine the problem of United States Air Force (USAF) MQ-9 instructor pilot attrition and the impact that unmet needs may have on their decision to leave the military. Throughout this chapter, a review of the relevant literature associated with the topic of study is presented. In the first section of the chapter, Vroom's (1964) expectancy theory and its influence on employment fulfillment and Herzberg et al.'s (1959) two-factor theory and its role in employee motivation and satisfaction are both discussed. In the second section, the scholarly literature related to the factors that influence RPA instructor pilot attrition rates and the resultant implications for national defense is considered. At the conclusion of this chapter, a gap in the literature is highlighted, identifying a crucial need for the current study.

Theoretical Framework

Throughout this section, the two theories that guided this research are outlined, the rationale behind their use is explained, and their value to the research is highlighted. The two theories that were used to build the theoretical framework of this research include Vroom's (1964) expectancy theory and Herzberg et al.'s (1959) two-factor theory, both of which are theories of motivation. Motivational theories provide an opportunity for researchers to build a research framework that increases their comprehension of why humans tend to behave in certain ways and how these behaviors can be capitalized upon in improving workplace productivity (Kanfer & Chen, 2016; Latham, 2012; Manganelli et al., 2018). Though both of these theories are defined as motivational theories, Vroom's (1964) theory is defined as a process motivation theory, while Herzberg et al.'s (1959) theory is defined as a content motivation theory. The

combination of both process and content motivation theories in this theoretical framework allows for a thorough understanding of both the internal and external factors that influence an employee's workplace motivation and their resultant behaviors (Sahito & Vaisanen, 2017).

Expectancy Theory

Vroom's (1964) expectancy theory is a process motivation theory that explores the precursors of motivation and how they are connected. This theory was one of the first motivational theories applied specifically to the workplace, which was further refined by Porter and Lawler's (1968) model of intrinsic and extrinsic work motivation. Unlike many motivational theories that focus on content or which factors motivate an employee to do well in the workplace, expectancy theory instead focuses on the thought processes that drive an individual's motivation. The theory suggests that there is a relationship between a person's perception of what they will receive in reward for hard work and the resultant effort that they will put into their work (Vroom, 1964). Further, it proposes that the effect of this perception and subsequent effort will influence job performance and improve the outcome of the individual's work (Lunenburg, 2011; Purvis et al., 2015). One essential aspect of this theory is that each person will be influenced differently by their opinion on the attractiveness of the possible rewards, showing the importance of an employer's understanding of their employees' priorities and goals (Purvis et al., 2015). Rather than suggesting that an organization's members work based on unmet needs or internal drive, this theory provides a framework in which employees are viewed as rational thinkers who weigh the benefit of their actions against the potential organizational reward (Lunenburg, 2011).

Four variables are thought to influence an individual's motivation in the workplace, including individual performance, personal goals, individual effort, and organizational rewards

(Parijat & Bagga, 2014). The link between these variables creates Vroom's (1964) three principal relationships of expectancy theory: expectancy (E), instrumentality (I), and valence (V). Expectancy is an employee's belief that their efforts will improve their workplace performance. Instrumentality is the understanding that hard work will be rewarded with a positive outcome. Valence is the value that an employee places on that workplace outcome. Thus, expectancy theory can be defined with the following equation: motivation = E x I x V. It is important to recognize that in this relationship, if any variable is equal to zero, then overall motivation will also equal zero (Vroom, 1964). With this calculation and conceptual understanding, Vroom's (1964) expectancy theory can allow employers to anticipate whether or not employees will respond positively to the workplace outcomes provided and thus work harder than otherwise (Barba-Sánchez & Atienza-Sahuquillo, 2017; Parijat & Bagga, 2014).

Vroom's (1964) theory and its intertwined variables have been discussed, scrutinized, and tested in both academic and workplace environments, which has proved its validity and value in various settings (Lloyd & Mertens, 2018). Vroom (1964) saw a significant need for a more in-depth understanding of motivation that could connect the vastly different practices of organizational leaders and the current psychological research theories. The multi-faceted design of expectancy theory has proven valuable in examining the motivational differences of not only individuals but between cultures, unlike the more simplistic approaches of Maslow's (1943) hierarchy of needs or Herzberg et al.'s (1959) two-factor theory (Parijat & Bagga, 2014). In modern workplace management, this theory has proven especially useful as organizations find themselves spread out across cultures globally (Lloyd & Mertens, 2018). With different cultures valuing certain rewards differently, the objective nature of expectancy theory allows for

researchers to gain a better understanding of the true driving forces of motivation (Hofstede, 1980).

Over the past sixty years, Vroom's (1964) expectancy theory has advanced many areas of research, including employee compensation, leadership, and organizational behavior (Baumann & Bonner, 2017; De Simone, 2015; Purvis et al., 2015). It is also thought to relate to workplace attrition, performance and productivity, training motivation, goal setting, and organizational commitment (Van Eerde & Thierry, 1996). This theory has been recognized as one of the most accepted and evidentially supported motivational theories, with numerous studies testing the precision of expectancy theory's ability to forecast employee behavior (Ivancevich et al., 1990; Supatn & Puapradit, 2019). Expectancy theory has also been examined within large federal organizations, showing that organization-wide rewards influence the job satisfaction of each employee and that expectancy can significantly influence federal employee applicant withdrawal (Acikgoz & Sumer, 2018; Soyoung & Sungchan, 2017). Due to its scholarly acceptance and application to the examination of MQ-9 instructor pilot attrition within the USAF, this theory provided a valuable framework for the research at hand.

Two-Factor Theory

Herzberg et al.'s (1959) two-factor, or motivation-hygiene theory, is a content motivation theory that found its roots in Maslow's (1943) hierarchy of needs. In the beginning phases of research, Herzberg et al. (1959) hypothesized that due to the many factors that impact workplace satisfaction or dissatisfaction, these two subjects could not be measured on the same scale because the factors were not the same. The researchers thought that there would be distinct factors that would create negative attitudes and others that would create positive attitudes toward the workplace. However, as the research progressed, the researchers determined that the two

factors of motivation and hygiene could negatively or positively influence job satisfaction, thus allowing for both subjects to be examined at once with a two-factor approach (Alshmemri et al., 2017). Motivation factors were defined as factors that influenced self-actualization and personal growth. These factors could include recognition, responsibility, workplace advancement, achievement, and others (Chiat & Panatik, 2019). Hygiene factors were defined as an employee's requirement to avoid any unpleasant workplace scenarios (Alshmemri et al., 2017). This type of factor could be a company policy, an employee's relationship with their supervisor, compensation, or work conditions (Herzberg, 1966, 2003). As both of these types of factors were found to influence satisfaction, it was posited that the motivation factors were related to attitude, while hygiene factors were inherent to the work and workplace itself (Alshmemri et al., 2017; Stello, 2011).

The two factors in Herzberg et al.'s (1959) motivation-hygiene theory can also be differentiated as intrinsic and extrinsic factors, with motivation factors as intrinsic and hygiene as extrinsic. Although it was determined that these factors could be examined on the same continuum, it is important to note that they both influence satisfaction differently. Through their research, Herzberg et al. (1959) found that hygiene factors could not create job satisfaction; they only served to increase job dissatisfaction when hygiene factors are poor and reduce job dissatisfaction when they are improved. Likewise, the presence of motivation factors increases job satisfaction, but the absence of motivation factors does not decrease job satisfaction; instead, it only produces no job satisfaction (Herzberg et al., 1959). When a workplace can be described as "optimal," dissatisfaction will not necessarily exist, but in such conditions, overly positive attitudes or high levels of job satisfaction cannot be expected from employees (Alshmemri et al., 2017; Mc Glynn et al., 2012).

Some early research indicated the that two-factor theory might only be reliable when examining employees who have an elevated need for social approval from their employers (Wall & Stephenson, 1970). However, Herzberg et al.'s (1959) two-factor theory has been recognized as one of the most valuable and significant content motivation theories in the job satisfaction literature, as well as one of the most effective satisfaction models in many career fields including, healthcare, research, federal and municipal governments, and finance (Alrawahi et al., 2020; Dion, 2006; Habib et al., 2017; Mc Glynn et al., 2012; Ozsoy, 2019; Ruthankoon & Ogunlana, 2003; Thant & Chang, 2021). Although this theory has been extensively applied in the human resource management of these various fields, it has also shown its value in understanding how to improve the leadership and environment of educational facilities (Alshmemri et al., 2017; Ataliç et al., 2016). As educators often devote huge amounts of their time to students while receiving limited support, lackluster pay, and few opportunities for advancement, the application of this theory within the field is worthwhile (Ghazi et al., 2013).

The nature of this theory's in-depth examination of workplace factors that influence employee satisfaction or dissatisfaction causes this theoretical basis to be an outstanding framework with which to examine the retention problems facing the USAF, as many of its motivation and hygiene factors are potentially lacking. This research is valuable to furthering the knowledge base behind Herzberg et al.'s (1959) motivation-hygiene theory, as it specifically examined the influence of the factors on the well-being of employees who cannot simply quit and must fulfill a contract before they can shift to a work environment that better supports their needs.

Theoretical Application

Both Vroom's (1964) expectancy theory and Herzberg et al.'s (1959) two-factor theory are motivation theories that have application in the USAF's MQ-9 instructor pilot retention problem. These theories recognize the fact that there are many factors that can either motivate or demotivate employees and that if motivators are not in place, employees will not be encouraged to meet their full potential (Lunenburg, 2011; Stello, 2011). However, due to the theories' differences, they are complementary in examining why MQ-9 instructor pilots have unmet needs and a resultant disinterest in continuing their military career. Vroom's (1964) expectancy theory provides a great deal of value in examining both the individual and shared goals that motivate MQ-9 instructor pilots, whereas Herzberg et al.'s (1959) two-factor theory allows for a more in-depth examination of what workplace factors influence job dissatisfaction and burnout (Alshmemri et al., 2017; Purvis et al., 2015). Utilizing both of these theories in conjunction to describe the shared experiences of MQ-9 instructor pilots and their feelings of motivation and job satisfaction allowed for the expansion of knowledge related to workplace motivation, adding to the scholarly literature associated motivation in a manner that has not been completed before.

As mentioned previously, both Vroom's (1964) and Herzberg et al.'s (1959) motivation theories were used as a theoretical framework in all stages of this study. More specifically, these two theories were heavily utilized to guide the research question formulation and data analysis. As this study was written with the aim to describe the perceived factors that influence MQ-9 instructor pilots' attrition, ultimately, the research highlighted the motivational factors that were influencing their decision to leave the USAF. Thus, the research questions were structured using both theories to focus on the intrinsic and extrinsic factors that MQ-9 instructor pilots deemed influential on their decision-making when considering terminating their careers. Furthermore, once the data had been collected and themes were identified, these motivational theories were

used to guide the coding of these themes into similar groupings. Through the utilization of both Vroom's (1964) and Herzberg et al.'s (1959) theories, the focus of the research was more easily maintained.

Related Literature

The following sections of this chapter describe the literature related to the shared experiences of MQ-9 instructor pilots who are considering discontinuing their military career at the USAF's MQ-9 FTU. The first section of this literature review covers the history of remotely piloted aircraft from origin to their current-day applications (Shaker & Wise, 1988; USGAO, 2020). Additionally, this literature review discusses the unique retention problems that face both educators and military members, as MQ-9 instructor pilots fall into both categories (Hendricks, 2014; USGAO, 2020). Finally, the factors that influence retention in the military are discussed, such as compensation, mental health, leadership, and culture, as well as the implications that the MQ-9 instructor pilot retention problem can have for national defense.

Remotely Piloted Aircraft

Remotely piloted aircraft or "RPAs" (also previously referenced as unmanned aerial systems or unmanned aerial vehicles) are defined as aircraft that are operated without a pilot physically inside the aircraft but that instead operate the aircraft via remote control from another location (Farrell, 2014). The Department of Defense currently utilizes thousands of RPAs, valued in the hundreds of millions of dollars price range, within all four branches of the military and the National Guard for both domestic training and overseas operations (Department of Defense, 2012; Fahey & Miller, 2017; Norton, 2016; United States Air Force, 2009). Since its beginning, the aviation community has "envisioned a future in which promising new technologies can solve such age-old matters as the fog and friction of war," an area in which

these RPAs have continued to excel (Kreuzer, 2015, p. 69). Although RPAs are recognized as gravely important to national defense, the pilots who fly them are facing problems. Since 2016, RPA personnel in the USAF have been manned below the authorized level and face significant instructor shortages (USGAO, 2020). This substandard manning has resulted in increased workloads, which has been indicated in stress, mental health problems, dissatisfaction, and further decreased retention in RPA pilots (Chappelle et al., 2014; Hardison et al., 2017; Ouma et al., 2011). Though it is apparent that the military is entering an era of revolution in unmanned aircraft, a decrease in the retention of RPA pilots presents a continuing concern that deserves further research and study (Stulberg, 2007; USGAO, 2020).

Origin

The first use of RPAs dates back to the early 1900s, shortly after humans left the Earth's surface in the first manned flight. Great losses of life in the first few years of World War I drove the British to begin researching remotely controlled aircraft that could be equipped with bombs and glided behind enemy lines to limit human fatalities (Shaker & Wise, 1988). By 1917, their army had developed an airborne torpedo that could be controlled remotely. The British anticipated that these aerial torpedoes could be used for the destruction of submarines or shipyard facilities, but they were only capable of flying roughly 1000 yards (Keane & Carr, 2013). Shaker and Wise (1988) highlight that in 1918 improvements of remote aircraft, as the first unmanned airplane launched and flew on course. However, while it was more successful, it failed to reach the 14,500-yard range that was expected. Regardless of their prior limitations, the British army was able to provide a highly useful unmanned asset called the Kettering Bug (Shaker & Wise, 1988). The Kettering Bug, created by Charles Kettering in conjunction with Orville Wright and Childe Wills of the Ford Motor Company, was a flying bomb that could hit

targets 50 miles from the launch area (Shaker & Wise, 1988). This valuable development in RPA capabilities highlighted their value in military operations. By World War II, new prototypes of RPAs had been created (Aggarwal & Kumar, 2020), but not a great deal of progress had been made due to the limited technological ability of radio-controlled aircraft (Olsen, 1972). The military continued to create unmanned aircraft, conducting some successful live attacks with radio-controlled aircraft (Aggarwal & Kumar, 2020). However, their application was limited by a lack of coordination which eventually resulted in the loss of many of the aircraft, wasted money, and ultimately indifference from political entities (Olsen, 1972; Shaker & Wise, 1988).

After years of disinterest in RPAs, an unmanned aircraft called the Firebee was developed for use in surface-to-air and air-to-air target practice during the Cold War (Corden & Hansen, 1957). Chandler (2016) noted that this aircraft with an electronic brain was a pilotless turbo-jet aircraft that could fly at near sonic speeds. The aircraft was operated by individuals on the ground in remote control stations that could be miles away from the Firebee itself. The Firebee was an outstanding opportunity for high-speed jets to practice targeting and shooting down enemy forces without putting other pilots' lives at risk (Chandler, 2016). Even though the Firebee was a success, the creation of unmanned aircraft stagnated. This was again due mainly to technological deficiencies and political constraints of the era, resulting in RPAs being relatively unused and undeveloped from the 1970s to the 1990s (Stulberg, 2007). However, after the terrorist attacks that took place on September 11, 2001, there would be a significant increase in both the development and employment of unmanned military aircraft (Rinehart, 2017).

Modern Use

Up until the 2001 terrorist attacks, RPAs were a transient desire in most military scenarios, as they were only occasionally useful for specific operational threats. When the United

States declared war on Afghanistan in 2001, there were under 50 RPAs in the USAF's arsenal, and they had never been used in a combat setting (Rinehart, 2017). However, since the early 2000s, the United States of America has employed RPAs to fly tens of thousands of hours in support of the interests of itself and its allies in combat zones (Asaro, 2013; Kreuzer, 2015; Stulberg, 2007). Unlike their predecessors, the modern MQ-9 Reaper and MQ-1 Predator are highly advanced RPAs that can be operated in various combat environments for upwards of 24 hours (Ouma et al., 2011). These advanced aircraft are able to be operated by RPA pilots from thousands of miles away via satellite communication to provide real-time imagery, information, and targeting (Chappelle et al., 2014; Coeckelbergh, 2013; USGAO, 2020).

With these advances in technology, RPAs have been used to provide intelligence, surveillance, and reconnaissance ground forces, integrate with other aircraft, and destroy enemy targets, all without putting their crews' lives in danger (Keane & Carr, 2013). Their use has been recognized repeatedly by senior military officials as an essential force multiplier and a transformational aircraft that can manage incredibly high workloads (Farrell, 2014; United States Air Force, 2009). Congressional representatives expect that RPAs will be responsible for up to 35% of strike missions by 2025, and the demand for unmanned aircraft has only continued to grow (Department of Defense, 2012; Stulberg, 2007). Due to remarkable combat success in the Middle East and other nations, several new mission sets have been generated for the RPA community. These missions include disaster relief, agriculture, firefighting, border patrol, and future air-to-air engagements, as well as many other developing areas of employment that have yet to be implemented (Aggarwal & Kumar, 2020; Ouma et al., 2011; Stulberg, 2007).

The Retention Problem

Retaining employees is a top concern for nearly every type of organization, as it is a complicated balance of maintaining workplace satisfaction, organizational profitability, and employee productivity (Aguenza & Som, 2018; Geiger & Pivovarova, 2018; Naz et al., 2020; Tehseen & Hadi, 2015). In the exceedingly competitive global market that exists today, not only do organizations need to attract highly qualified and motivated employees, but they must also work to retain such employees in order to prevent them from joining a competing organization (Kossivi et al., 2016). The human capital that employees provide a company with is known to be one of the most valuable assets any organization can acquire, and without investing cognitive effort into the retention of employees, an organization risks failure (Gabčanová, 2011). This complex set of tasks has created retention problems for many career fields, but these problems are especially prevalent in career fields that rely on government funding like the military and education system (Hendricks, 2014; USGAO, 2020).

Military Retention

Military programs in both the United States of America and other nations have faced problems with retaining well-qualified members for decades (Bressett, 2018; Otis & Straver, 2008; Sminchişe, 2016; Wilcove et al., 1991). The issues driving this problem are diverse and include factors such as deficient healthcare, lackluster pay rates, leadership problems, and mental health issues (Falk & Karamcheva, 2018; Hardison et al., 2017; Stahl, 2015). Similarly, the USAF is currently facing a significant pilot shortage that negatively influences its ability to meet congressional flying expectations (Thompson, 2018; USGAO, 2020). While many of the same factors that were previously mentioned contribute to the USAF's pilot retention problem, high hiring rates and extremely competitive pay offered by the civilian airlines also contribute substantially (Sweeney, 2015; Thompson, 2018). The USAF has worked toward improving pay,

reducing workloads, and prioritizing family life, but it has yet to achieve equilibrium with how many members choose to leave before retirement, posing a significant threat to the future of the USAF (Asch, 2019; Hensel, 2016).

Although the military as a whole has been facing retention problems, this issue is highly problematic in the area of MQ-9 instructor pilots. The USAF has expressed concern that it will be unable to attract and retain MQ-9 pilots to the career field due to growing dissatisfaction and unrest (Hardison et al., 2017). The United States Government Accountability Office (2020) has identified that this issue is becoming more prevalent in higher ranking positions, with one example being MQ-9 instructor pilot positions at the USAF's main MQ-9 formal training unit. MQ-9 instructor pilots at the formal training unit have been historically understaffed, with only 75% of instructor pilot billets filled as of September 2019 (USGAO, 2020). It is thought that part of this issue stems from operational squadrons being unable to properly train their experienced pilots as instructor pilots before their arrival at the formal training unit due to having only 80% of their pilot billets filled (Hardison et al., 2017). This inability to fully train instructors before their arrival at the formal training unit does not align with USAF regulations, which has driven a higher workload for qualified instructor pilots as their colleagues spend additional time in training (Air Force Instruction, 2020; USGAO, 2020). From as early as 2006, the formal training unit has been indicated as the limiting factor in the timely training of MQ-9 pilots in support of national defense objectives, making this situation a cyclical and self-perpetuating problem for the USAF and the MQ-9 enterprise as a whole (Department of Defense, 2006; United States Air Force, 2009).

Educator Retention

Numerous studies have identified the fact that educational systems worldwide are facing a growing problem in retaining educators (De Stercke et al., 2015; Gonzalez-Escobar et al., 2020; Karsenti et al., 2013). Gonzalez-Escobar et al. (2020) highlight that this problem is particularly serious since many teachers are leaving the educational field before their five-year mark. This has been a longstanding problem, with inexperienced teacher dropout rates as high as 50% dating back to 2003 (Ingersoll & Smith, 2003). These attrition rates for educators are significantly higher than the attrition rates seen in other career fields (Liu & Meyer, 2005). Although this problem has been well known for decades, it appears that little progress has been made in finding a solution to increasing educational attrition rates (Gonzalez-Escobar et al., 2020). The failure to address this problem is particularly concerning, as teachers who remain in the education field have higher experience levels and tend to be more successful in increasing student achievement (Harris & Sass, 2011; Rockoff, 2004). Educator turnover can harm students, as experienced teachers take their skill, ability, and emotional support away from the school and their students when they choose to leave (Ronfeldt et al., 2013; Tehseen & Hadi, 2015). While the reasons behind why educators are quitting teaching at higher rates than previously seem to have not been entirely identified, it has been found that the environment, salary, ability in decision-making, administration, and many other factors contribute to why educators are unhappy with their career choice (Geiger & Pivovarova, 2018; Thibodeaux et al., 2015; Tickle et al., 2011).

Factors that Influence Retention

Retention is a significant problem facing organizational leaders in not only the education field and the military but numerous other areas (Bressett, 2018; De Stercke et al., 2015; Strachan et al., 2015). Losing and replacing a successful employee is an increasingly costly issue for

organizations, as it costs not only the company money but also time, productivity, and experience (Booth-Kewley et al., 2017; Tehseen & Hadi, 2015). Though there is no one factor that can improve an organization's ability to retain its employees, there are several areas that have been highlighted as influential in influencing a member's decision to remain in the workplace or quit. These factors include but are not limited to compensation, organizational culture, leadership abilities, mental health, and work conditions (Armour & Ross, 2017; Hendricks, 2014; Kim et al., 2020; Shabane et al., 2017).

Compensation

In line with Vroom's (1964) expectancy theory, compensation has been found to be a powerful motivator or demotivator and a contributing factor in employee retention (Hendricks, 2014; Michael et al., 2016; Springer et al., 2016). Compensation can exist in many different forms, such as organizational benefits, incentive stock options, commission pay plans, or bonuses for additional work or time (Mercer et al., 2010). Employees have come to expect these types of compensation as the norm, with 401Ks, comprehensive healthcare benefits, and competitive salaries having been indicated as the most sought-after compensatory rewards of younger and older professionals alike (Zaharee et al., 2018). Compensation or the lack thereof can lead to employees seeking out better work and compensation opportunities, increasing an organization's turnover (Msengeti & Obwogi, 2015; Silaban & Syah, 2018).

Conversely, studies have shown that there is a positive relationship between employee compensation or other rewards and the length of time they remain within the organization (Kline & Hsieh, 2007; Michael et al., 2016). Though compensation is not the only effective type of workplace incentive, it carries a great deal of influence as it can improve workplace satisfaction and performance (Falk & Karamcheva, 2018; Hendricks, 2014). When employees feel

appropriately compensated and valued by their organization, they have higher levels of workplace commitment and satisfaction, thus reducing their desire to search for alternative employment (Pertiwi & Supartha, 2021). The value of workplace commitment has been highlighted as one of the key indicators of performance, as committed individuals exhibited higher personal work expectations and felt a greater ability to manage their workload (Loan, 2020). This knowledge suggests that organizations can leverage their human resource management teams to improve pay and improve resultant employee turnover, satisfaction, and performance (Aburumman et al., 2020; Bibi et al., 2017).

Military Compensation. The topic of compensation is even more difficult to deal with for the military, as pay budgets are very strict, regardless of the fact that military pay makes up roughly one-third of the Department of Defense's annual budget (Asch, 2019). This compensation scheme has been in place for decades, with data from as early as the 1990s indicating that a military member's salary should fall around the 70th percentile of civilian pay for similarly educated civilians if the military is to recruit and retain well-qualified members (Office of the Under Secretary of Defense for Personnel and Readiness, 2002). As the military has been an all-volunteer force since the 1970s, quality pay is an important influence on maintaining appropriate staffing levels for its various career fields (Hosek et al., 2018). Further, research has shown that periods where the military has offered higher compensation, better qualified and higher quality members were recruited and retained (Smith et al., 2020). Regardless of the United States military's attempts, civilian career fields often seem to be more financially valuable than military ones, which may encourage members to leave (Hodges, 2015).

Similar to the rest of the military, USAF MQ-9 pilot compensation and retention have been identified as a problem (Carlisle, 2016). To avoid this pitfall, the USAF has tried to make

its pay rates more competitive with the civilian market without exceeding the money it has been allocated (USGAO, 2020). Starting as early as when the USAF began diverting manned aircraft pilots to RPA pilot jobs in 2012 as the MQ-1 and MQ-9 became desirable wartime assets, incentive pay has been offered in an attempt to keep MQ-9 pilots from leaving the service (Carlisle, 2016; Hardison et al., 2012). Between issues of pilots wanting to return to their primary aircraft and civilian employers offering significantly more money than the USAF can budget, retaining pilots, even with incentive pay, has been a significant struggle (Hardison et al., 2012). Since these early actions, the USAF has undertaken numerous initiatives to improve RPA pilot compensation like the addition of aviation pay for RPA pilots and large re-enlistment bonuses (Carlisle, 2016; Terry et al., 2019). The United States Government Accountability Office (2020) recognized that this improvement in compensation was accomplished through special aviation pay, re-enlistment bonuses, and RPA assignment incentives. However, even with these incentives, it was found that over multiple focus groups comprised of RPA pilots, this pay would not alleviate the factors they were weighing when considering leaving their career (USGAO, 2020).

Educator Compensation. Compensation in the education field and its influence on performance and retention has been a highly debated topic for years (Aragon, 2016; Kelley, 1997). This is due in part to the fact that educator shortages across the country have become commonplace, with compensation having been cited as one contributor to their attrition (Daniel, 2015; Hendricks, 2014; Millard, 2015). In the United States K-12 school systems, the salary regime has remained relatively unchanged for decades. Often called a single salary schedule, pay for teachers typically rises based on the number of years the teacher has been teaching and their resultant experience (Odden, 2000; Springer, 2019). While this has been challenged over the

years, with merit-based pay being indicated as more encouraging as a retention measure, it has remained in place throughout the country (Odden, 2000). Pay-for-performance programs that drive incentive pay for school districts that perform well on standardized tests have been implemented, but their value has been debated (Mintrop et al., 2018). Further, as federal and state legislators determine the funding and resultant pay of most educators, teacher wages tend to be relatively similar between locations. This causes a significant pay gap in areas where labor markets are thriving, and other professionals' wages may be high (Britton & Propper, 2016). For example, in 2021, the National Council on Teacher Quality indicated that the average educator's salary is 13-20% less than that of similarly educated professionals (Saenz-Armstrong, 2021).

While attrition and teacher shortages are negatively influencing school districts, the true victims of their attrition are the students. Research has suggested that there is a link between educator compensation, their resultant effort in the workplace, and the success of their students (Dolton & Marcenaro-Gutierrez, 2011; Hendricks, 2014; Tehseen & Hadi, 2015). Hendricks (2014) found that adequate educator pay improves the success of students through an increase in retained experience. This occurs as when more teachers are retained, fewer are replaced with inexperienced educators, increasing the knowledge, practice, and ability of the educator students are exposed to (Hendricks, 2014). In line with this idea, studies have shown that there is a direct link between educator experience and student achievement (Harris & Sass, 2011; Papay & Kraft, 2015). Harris and Sass (2011) found that teachers learn best by actually teaching in the classroom, and therefore become better educators and promote better learning over time. As a result, attrition negatively influences average experience levels within school systems, thus driving lower levels of student performance. These issues within the educational community highlight the value of understanding how compensation influences their retention.

Culture

Culture has been a hot topic in organizational retention research for many years (Härtel, 2008; Nikpour, 2017; Sheridan, 1992). Culture is often defined as the values and actions that are accepted as normal within a group or organization (Wilson, 2008). Organizational culture is often responsible for the attachment that an employee feels to their employer, their coworkers, their supervisors, and it has been noted as a predictor of military members' outcomes concerning re-enlistment intent, morale, job performance, and readiness (Booth-Kewley et al., 2017). The social support that often results from a positive work culture can improve an employee's self-esteem, provide coping mechanisms for stress, enhance workplace satisfaction, and reduce the intention to quit (Hagihara et al., 2003; Kim et al., 2020). Naz et al. (2020) found that when employees felt supported by their organizations, peers, and supervisors, they also felt more committed and obligated to them, driving reciprocation of support, increased time with the organization, and a lower likelihood to leave. With that being said, the opposite can also be true about organizational culture. Negative work cultures can be prevalent, regardless of the career field that is examined (Lindy & Schaefer, 2010). Often referenced as toxic, these negative organizational cultures can be fostered in organizations where leaders do not value their employees' well-being and emotional needs or allow coworkers to do the same (Härtel, 2008). As a positive organizational culture has been found to increase productivity and employee commitment, negative cultures have been found to drive opposite reactions (Nikpour, 2017). Negative organizational cultures can cause feelings of fear and anxiety to fester, while trust and communication dwindle (Härtel, 2008; Van Rooij & Fine, 2018). Due to these factors, organizational culture has been deemed as highly significant in influencing employee retention (Anitha, 2016; Licklider, 2011).

Military Culture. While the military differs in its mission, which is typically founded in a willingness to take or lose life in the name of the national defense, culture tends to develop in a similar manner to any corporate organization (Wilson, 2008). While culture develops in a similar way, the military fosters a unique subset of culture within the United States of America, where uniformity, self-sacrifice, and self-control are expected (Bennett, 2018). This mindset is created through training that forces members to rely on one another in order to succeed, which in turn creates a culture where members are willing to take actions in dangerous situations that civilians may not (Drozd, 2020). This type of training generates a culture where members tend to see themselves as part of a group rather than individuals, which allows them to utilize their skills in battle quickly and correctly (Petrovich, 2012). While this uniformity may be beneficial in mission success, the military's homogeneity is also known to drive a toxic culture that is more likely to accept eating disorders, sexual assault, and avoidance of help for mental disorders (Abraham et al., 2017; Bennett, 2018; Ferrell et al., 2021). Stressful negative workplace cultures have been identified as being significantly influential on an employees' intention to continue with the organization (Vong et al., 2018).

In line with the retention and culture literature discussed thus far, Hardison et al. (2017) found that positive work cultures in the RPA pilot community can lead to increased levels of camaraderie and progressive attitudes toward their work environment, which could even mitigate some of the more negative workplace problems and subsequent retention. Similar to the demanding self-sacrifice culture that most military units foster, RPA crews typically work for 10+ hours a day, six days straight, and this arduous operations tempo is accepted as not only normal but necessary (Carlisle, 2016). This accepted cultural norm causes RPA crews to experience high levels of stress, burnout, and dissatisfaction, all of which contribute to problems

with retention within the career field (Terry et al., 2019). Carlisle (2016) recognizes that these are known issues that the military is trying to actively correct but are inherent to military work and completion of the mission.

Educator Culture. Culture has been indicated as one of the fundamental requirements for improvement and innovation in the education career field (Corbo et al., 2016). Academic culture, a decades-old concept, is the foundation upon which an educational institutions' values and beliefs are built (Peterson & Spencer, 1990). Educational faculty members' attitudes are heavily influential on an organizations' academic culture, both positively and negatively (Walters, 2016). Like any organization, deep-rooted cultural norms can cause educators to avoid implementing new practices that could be beneficial to improving student outcomes (Henderson & Dancy, 2007). With education being a nearly timeless construct, fostering new cultures to circumvent a toxic organizational culture can be difficult and requires significant effort and training from leadership (Khamidovna, 2020). One such toxic academic culture that plagues many institutions is academic dishonesty or plagiarism, which can destroy the institution's credibility and standing, as well as that of its employees, researchers, and students (Yang, 2016). Such results of toxic culture can have a significant influence on an organizations' ability to retain its employees (Anitha, 2016).

Leadership

Leadership capability has been shown to have a significant influence on employee retention (Mir et al., 2020; Shabane et al., 2017; Sminchişe, 2016). Research has shown that leaders must be cautious in how their leadership style, skill, and overall behavior can influence their employees' opinions and willingness to follow commands (Thibodeaux et al., 2015). Tickle et al. (2011) found that support from administration positively influences a teacher's job

satisfaction, and their resulting satisfaction was a significant predictor in whether or not a teacher intended to stay in their job. This idea held true outside of the educational career field as well, with federal employees, nurses, and volunteers seeing decreases in turnover when their leaders were seen as supportive and displayed favorable leadership styles (AbuAlRub & Nasrallah, 2017; Benevene et al., 2018; Katz et al., 2021). In numerous settings, positive leadership relationships have also been identified as a mediating factor in workplace retention in career fields like the educational field and the military, while negative leadership relationships have shown the opposite (Armijo, 2017; Pflanz & Ogle, 2006; Tickle et al., 2011).

Military Leadership. The problems associated with military leadership are particularly tricky to tackle, as military leadership includes not only a member's direct supervisor and chain of command but also senior military leaders as well (Sminchişe, 2016). The United States military is one of the largest organizations within America, and it follows the typical hierarchal structure common to most militaries. Falling under the Department of Defense, the United States military employs over 2.1 million active-duty, national guard, and reserve members (United States Department of Defense, 2020). This large organization is made up of many units that are often subdivided into teams that display low levels of skill differentiation but high levels of authority differentiation (Goodwin et al., 2018). Similar to the civilian world, an employees' loyalty, intention to stay, and engagement are all influenced by leadership satisfaction, but the ability to influence leadership is much more restricted (Book et al., 2019). In line with this ideal, military leadership has historically been autocratic, leaving little room for members to push back or expect change to occur (Najafipour, 2016). This type of hierarchy is difficult to replicate in civilian organizations, as military leaders are often highly involved in the personal details of a

military member's life, like relationships and finances, which can create a higher level of leadership dependence (Kark et al., 2016).

Autocratic leadership has been the military standard for millennia, but many new and less rigid leadership styles have become popular as the military enters an age where an individual's feelings and emotional well-being are seen as related to their ability to contribute to a team (Surace, 2019; Wheelan, 2021). Over the last decade, research focused on military leadership style has shown that there are substantial benefits to be had when military leaders employ leadership styles like shared leadership, transformational leadership, and transactional leadership rather than using the standard autocratic leadership structure (Arenas et al., 2017; Goodwin et al., 2018; Waddell, 2019). Though no specific leadership style has been deemed the most valuable within the military, it is important for military leaders to recognize that they must remain flexible in their use of leadership skills in order to achieve the highest levels of success (Bin Osman & Uli, 2014). This flexibility is incredibly important because a military leader's leadership style has been indicated in driving mission effectiveness, performance, and cohesion (Bucic et al., 2010; Gupta et al., 2010; Lyubovnikova et al., 2017). With that said, Suifan et al. (2020) found that employees who were empowered and provided greater leniency in leadership had higher retention rates than those who did not, indicating that various types of leadership can influence a military members' happiness and intention to remain in the workplace.

Autocratic Leadership in the Military. Due to the size of the military and its gravely important mission objectives, autocratic leadership has been the standard operating procedure for years (Waddell, 2019). This is due to the fact that autocratic leadership allows for the swift dissemination and execution of military orders, allowing critical information to be communicated in a battlefield setting (Najafipour, 2016). Many of the decisions that must be made on the

battlefield can result in serious consequences, such as the destruction of international relationships or the loss of life, which highlights the value autocratic leadership provides to the military. Under this leadership structure, experienced and highly educated leaders are able to make these difficult decisions, with the decisions being passed down and carried out via the chain of command, which causes it to be one of the safest ways to carry out military operations (Kark et al., 2016).

While its rigid structure makes sense from a technical perspective, the use of autocratic leadership in the military is known to have several detriments. One such problem with an authoritarian leadership style is its tendency to foster toxic behaviors in a leader, which resultantly can create low job satisfaction and fulfillment in subordinates (Dobbs & Do, 2019; Gonzales, 2016). This is due to the leadership style's inflexibility, disconnection from members' emotional needs, and the resultant stress (Gonzales, 2016). Low satisfaction levels in military members can cause a reduction in productivity and an increase in undesirable behaviors, which places mission success at risk (Bin Osman & Uli, 2014). Martin et al. (2017) found that when military members feel low levels of job satisfaction, they also experience lower personal satisfaction, happiness, and feelings of distress. This often stems from the focus on personal achievement that is highlighted as valuable in autocratic leadership rather than a focus on teamwork (Martin et al., 2017). Further, when members are not focused on the team, they act less creatively, decreasing mission success (Goodwin et al., 2018).

Transactional Leadership in the Military. The idea of transactional leadership was defined by Bass (1985) alongside transformational leadership. While its origin was in the 1980s, this leadership style has been revisited numerous times (Avolio & Bass, 2002; Krüger et al., 2011; Purwanto et al., 2019). This leadership style is named for the transactional relationship that

is established between an organization and its employees, where organizations offer monetary or non-monetary rewards like healthcare or retirement benefits in exchange for an employee's performance (Rowold, 2014). Transactional leadership tends to resemble management, as opposed to true leadership, but it provides the benefit of a clear organizational structure and chain of command and thus is regularly used in large, diverse organizations (Tavanti, 2008). Although transactional leadership has both benefits and detriments, it is widely used in both the United States and international militaries (Jayasingam, 2019; Martínez-Córcoles & Stephanou, 2017).

Transactional leadership is often represented in the military when a team leader offers contingent rewards like praise, positive performance reports, or physical rewards for the teams' completion of tasks, which provides several benefits (Jayasingam, 2019; Martínez-Córcoles & Stephanou, 2017; Waddell, 2019; Zaleski, 2015). Martínez-Córcoles and Stephanou (2017) found that one positive influence of transactional leadership in a military setting was the improvement of safety and prevention of workplace mishaps, as its use predicted safety participation and compliance. The positive or negative feedback presented for complying with safety measures drove an increase in military members' participation (Martínez-Córcoles & Stephanou, 2017). Transactional leadership was found to be highly effective in the military setting when the leader's communication skills were high and clear expectations were established, allowing for members to earn rewards regularly (Zaleski, 2015). One interesting note in reference to the transactional leadership style's weaknesses in a military setting is that the success of this leadership style within military teams can be limited if the leader employing it does not exhibit transformational leadership traits (Mokhber et al., 2015; Williams & Alshahrani, 2017).

Transformational Leadership in the Military. Transformational leadership is a relatively new leadership technique that owes much of its origins to James Burns (1978), who posited that leaders must encourage their followers to work for more than a transactional existence. In order to do this, leaders must focus their energy on uniting their followers and organization in one interconnected purpose. Further, he suggested that transformational leaders should do more than simply lead; instead, they should aspire to understand the needs and desires of their followers (Burns, 1978). A true transformational leader is able to connect with his followers by showing understanding of the struggles that their followers experience and high levels of time and care spent in developing each individual (Dai et al., 2019).

Research has suggested that transformational leadership within the military results in the most positive influence on subordinates, as leaders who use this style tend to promote the value of their followers rather than themselves (McCleskey, 2014). Further, Garcia-Guiu et al. (2016) found transformational leadership highly valuable in military teams, as it improved unit cohesion. This held especially true in dangerous scenarios where military members were isolated from their leadership, where their understanding of organizational goals allowed the proper execution of orders regardless of leadership presence (Garcia-Guiu et al., 2016). This leadership style has also been identified as a contributor to the success of military trainees and cadets (Arenas et al., 2017; Gonzales, 2016). Specifically, Gonzales (2016) found that Reserve Officers' Training Corps (ROTC) cadets led by transformational leaders typically expressed greater feelings of autonomy, program satisfaction, decision-making, and creativity. Literature supports the idea that these benefits stem from the collective identity that is created within groups that are led by transformational leaders (Boies & Howell, 2009). Armijo (2017) found that once these cadets graduate and reach their career within the military, being led by

transformational leaders is additionally thought to improve the likelihood that they continue their service in the military. In reference to a transformational leader, one military member stated: “he made me want to be a Marine for the rest of my life. Not because of the Corps, but because of what he showed me I could be,” highlighting the extreme influence a transformational military leader can have on their subordinates (Armijo, 2017, p. 111).

Shared Leadership in the Military. A shared leader has been defined as one who has not been formally appointed but shares responsibilities with team members when their skills are applicable (Pearce et al., 2009). In opposition to the typical leadership structure, shared leadership does not support the idea that a singular, authoritative leader is the most effective team structure but instead promotes a lateral leadership structure between the leader and their highly skilled followers when their expertise is needed (Goodwin et al., 2018; Pearce & Conger, 2003). The value of this leadership style is readily apparent in its application. Teams are better able to meet their goals or produce results when shared leadership is applied, as the team member with the greatest ability to operate under the current conditions is allowed to step up and lead the team (Pearce et al., 2009).

Kark et al. (2016) suggest that shared leadership can be difficult for military members, as their promotion through the ranks is dependent upon their individual contributions to the military. For example, military officers must show they are progressing and stand out from others through direct responsibility for the accomplishments of their subordinates (Kark et al., 2016). This need for individual recognition can make the military a difficult place for leaders to be willing to share their leadership and resultant rewards of success, which make humility crucial in a military leader’s ability to employ shared leadership techniques successfully (Chiu et al., 2016). With this said, high-level military leaders have recently realized that it is not possible for

leaders to possess every piece of information required to run an organization, allowing shared leadership to become popular (Kark et al., 2016; Wang et al., 2014). However, some military members maintain that it is impossible for shared leadership to be applied within the context of military operations, promoting the idea that it does not apply to many military situations (Ramthun & Matkin, 2014). While it may be difficult to employ in certain situations, there are numerous benefits to the use of shared leadership within the military.

Although it has been criticized as time-consuming, shared leadership is beneficial in many settings, particularly in dangerous military settings (Langen, 2014; Ramthun & Matkin, 2014). Langen (2014) has found that shared leadership allows for rapid decision-making in combat operations. This research determined that when leaders delegated in combat scenarios, their subordinates were able to use their higher level of control to employ creative, innovating decision-making in a timely manner that would not have been possible otherwise (Langen, 2014). Further, once the situation in which shared leadership was most beneficial is completed, research has shown that subordinates were able to quickly and easily return to their roles as followers, allowing for high levels of leadership flexibility and adaptability (Ramthun & Matkin, 2014). In addition to creativity, shared leadership fosters communication skills between team members, allowing an expedited development of trust and a sense of unity between team members and their leader (Hoch & Kozlowski, 2014). With the use of shared leadership techniques, military leaders are best able to depend on the strengths of each of their team members, rather than attempting to lead based on their skills alone (Gu et al., 2018). Over time, this reliance upon one another is expected to improve the maturity and consistency of individual members, causing increased motivation, confidence, and mission success (Aime et al., 2014).

Educational Leadership. A great deal of research exists on educational leadership, as its influence on educational outcomes for students is significant (Bridges, 1982; Castillo & Hallinger, 2018; Gumus et al., 2018). Leadership literature has identified that the educational sector has specific characteristics that cause it to require different leadership theories and models than other fields (Bush, 2003; Castillo & Hallinger, 2018). While the education system can benefit from other fields' research in leadership, educational leaders focus solely on the goals that align with improving students' educational experiences and quality instead of producing a product or satisfying a customer, causing the field to have unique leadership needs (Bush & Sargsyan, 2013). As it differs from other leadership regimes, educational leadership has been defined as influencing an institution's employees to display and promote the school's goals and objectives (Firestone & Riehl, 2005). While there are numerous educational leadership styles, some of the more prominently applied models include transformational leadership, ethical leadership, instructional leadership, and distributed leadership (Bush & Glover, 2003; Gumus et al., 2018; Tian et al., 2016).

Transformational Leadership in Education. Transformational leaders spend a great deal of time and energy on understanding and connecting with their followers, which holds true in the education field as well (Anderson, 2017; Dai et al., 2019). Similar to other organizational applications of transformational leadership, early research of educational leadership found that transformational leadership provided leaders with the skills to facilitate change, improve performance, and meet school objectives (Leithwood, 1994). Further, teachers led by transformational leaders are able to more easily learn new education techniques, develop stronger critical-thinking skills, and establish new norms that influence institutional culture (Simsek, 2013). This type of leadership has been indicated repeatedly as influential on educators'

attitudes, job satisfaction, and ultimately their intention to stay in the career field, making it an important leadership style to understand (Bush, 2017; Gumus et al., 2018; Thomas et al., 2020).

Ethical Leadership in Education. While transformational leadership has been highlighted as a valuable leadership style, there have been instances of leaders who have applied it in an unethical manner (Bush & Glover, 2003). Thus, ethical leadership, which is founded on integrity and trustworthiness, has become more prevalent in schools (Brown & Treviño, 2006; Gumus et al., 2018; Treviño et al., 2000). Sometimes also called moral leadership, this leadership model is based on the ideals of morality, fairness, and actions that align with the ethics of an organization (Arar et al., 2016; Bush & Glover, 2003; Cherkowski et al., 2015). This type of leadership typically creates an educational environment where teachers are able to improve their morals through mentorship and tend to make more ethical choices, resulting in a better culture (Cherkowski et al., 2015). This environment is able to mediate an educators' intent to leave the career field through job satisfaction and the overall well-being of employees (Ahmad et al., 2018).

Instructional Leadership in Education. Instructional leadership became a hot topic in the 1980s as an educational leadership model that could transform schools into highly effective environments, and its popularity has continued to the modern-day (Hallinger et al., 2020). The growing interest in instructional leadership has been noted as an indicator of the fields' desire to share leadership responsibilities collectively within departments rather than individually (Gumus et al., 2018; Spillane, 2005). Some of the earliest descriptions of instructional leadership suggest that it requires a leader who cares deeply about school climate, is dedicated to the institution's mission, and focuses on fostering teachers' activities and actions that contribute to students' success (Hallinger & Murphy, 1985; Leithwood et al., 1999). While it has many benefits, in

order to be successful instructional leaders must have the expertise, authority, and knowledge to project an institutional vision that uses all of the schools' resources in order to achieve its objectives (Geltner & Shelton, 1991; Leithwood et al., 1999). When leaders are appropriately trained to apply instructional leadership, schools see better and more positive climates, higher levels of satisfaction and commitment, and improved retention rates (Abbott & McKnight, 2010; Boyce & Bowers, 2018).

Distributed Leadership in Education. Distributed leadership is one of the most highly researched leadership styles in the education field, with interest growing significantly in the 21st century (Gumus et al., 2018; Tian et al., 2016). Also called shared leadership or team leadership, this leadership style focuses on the involvement of all members of the institution in the success or failure of the organization, as well as their accountability for student outcomes (Leithwood, 2001; Spillane, 2005). Boyd et al. (2011) identified administrative leadership as the only significant factor that predicted an educator's intent to leave, with more than 40% of surveyed teachers agreeing that leadership was the main reason for their attrition. Highlighting the value of the distributed leadership model, research has shown that teachers who work under distributed leadership models feel more involved and resultantly have higher levels of job satisfaction, which leads to lower levels of teacher turnover (Ladd, 2011; Torres, 2019). This style of leadership is likely able to achieve this through nurturing trust, delegation, and flexibility within educational settings (Tian et al., 2016).

Mental Health

Mental health problems affect individuals of every region across the globe and often damage their quality of life to the point of severe hopelessness or even suicide (Kleinman et al., 2016). Long-term sustainment of poor mental health can even lead to significant physical

problems like cancer and cardiovascular diseases (Prince et al., 2007). These issues have been rising internationally for decades across all age groups (Alegría et al., 2015; Cornaglia et al., 2015). Mental health has been identified as particularly influential in both the military and education fields, driving decreased productivity, happiness, retention, and suicide (Acosta et al., 2014; Reimann & Mazuchowski, 2018).

Mental Health in the Military. While there have been many advances in the military mental health field, both the DOD and the Veterans Health Administration have noted that barriers and stigma drive military members to regularly avoid seeking help for mental health problems (Acosta et al., 2014; Mohatt et al., 2017). Research from Hom et al. (2017) that reviewed 111 studies of military members and their mental health indicated that on average, 29.3% of members struggling with mental health did not seek help, with some of the studies showing rates as high as 60-70% (Rosen et al., 2011; Seal et al., 2010). This is troubling, as many military members returning from recent war operations experience PTSD, anxiety, moral injury, nightmares, or another mental health problem, which is a significantly large number (Blais et al., 2021; Greene-Shortridge et al., 2007; Koenig et al., 2019). While these wartime factors are significant, it is important to note that most military members' careers are spent carrying out peacetime missions, indicating that the normal operating conditions and occupational stress of military work can also influence their mental health and well-being (Brooks & Greenberg, 2018; Pflanz, 2001). It is thought that one of the driving factors behind why members do not seek help is the stigma associated with mental illness and resultant negative work outcomes associated with that stigma (Acosta et al., 2014; Sharp et al., 2015; Waitzkin et al., 2018). Sharp et al. (2015) identified two of the main concerns of military members were that their units would treat them differently and that they may be seen as weak if they sought mental

health help. With military members taking their lives at a rate of roughly 1% (males) to 3% (females) higher than their civilian counterparts, mental health problems contribute significantly to military retention problems (Reimann & Mazuchowski, 2018; Wright et al., 2012).

The work of an RPA pilot has been referred to as bureaucratized killing, or a career in which the pilot is involved in determining life or death similar to that of a sniper: responsible for death, but from afar (Asaro, 2013). This type of work can take a significant toll on a person's mental health and well-being (Chappelle et al., 2014). This is in addition to the normal occupational stress that military members are known to have, with one study showing that more than half of military members at a mental health facility indicated that non-combat stressors had indicated to their mental health problems (Pflanz, 2001). Military members that crew RPAs have been called "victims of their own success," as they tend to suffer mentally or emotionally from the successes of their missions (Hardison et al., 2017, p. xi). Stahl (2015) recognized that RPA pilots face a challenge unique to their career field in that their family life and combat operations lack a buffer of time and space, which causes a high level of stress that is not seen in other USAF pilots. These types of stress can weigh heavily on the minds of military members and RPA crews alike, leading to higher incidences of post-traumatic stress disorder as well as other mental health problems (Armour & Ross, 2017; Gal et al., 2016; Reardon et al., 2016). While serious mental health problems that cost the lives of those involved in the work of killing may not be the norm, the emotional stress that it places on members and their families can potentially lead to unsatisfying careers, domestic problems, marital issues, and subsequent problems with retention (Hijazi et al., 2019; Mailey et al., 2018; Ogle et al., 2018).

Mental Health in the Educational Field. Teachers have been indicated as serving in a profession that is at a high risk of workplace stress and subsequent mental health problems

(Kovess-Masféty et al., 2007). Many mental health issues that teachers experience are thought to come from the weight of ensuring the academic and personal development of their students, paired with long hours and emotional investment (Zhang et al., 2020). Poor mental health can lead to burnout, reduced job satisfaction, and attrition in schools (Glazzard & Rose, 2019; Gray et al., 2017). Unfortunately, one study found that 36% of interviewed teachers avoid taking time off for their mental health as they believe it will negatively impact their students and their learning (Education Support Partnership, 2018). Unlike their more experienced counterparts, first-year teachers encounter significantly more mental health problems, with anxiety and depression becoming increasingly common (McLean et al., 2017). Resilience habits and subsequent educator resiliency have been indicated as mediators to educator mental health, as they reduce sadness and anxiety and improve quality of life (Gu et al., 2014; Lei & Wang, 2017). Research has indicated that offering resilience training and tools to rookie educators could reduce their stress levels and subsequently improve their retention (Doney, 2013). Zhang et al. (2020) suggest that the education field needs to focus its efforts on providing resilience training and removing barriers to teaching if it hopes to improve retention.

Work Conditions

An employee's work conditions have been indicated as crucial to their intent to leave an organization (Kundu & Lata, 2017; Ladd, 2011). Research has indicated that 80% of employees consider leaving their company for ones with better work environments, highlighting the importance of an organization's creation of favorable work conditions if it hopes to continue growth and profitability (Guchait & Cho, 2010; Luthans et al., 2008; Richman et al., 2008). Work conditions are not defined as simply the quality of the workplace itself but also higher leadership's skills and opportunities for professional development (Ladd, 2011). Often it is not

just workplace conditions that drive an employee to seek another job, but rather the interaction of their work conditions along with other internal and external factors like the economy, leadership, or social constructs (Fridriksson et al., 2017). These factors can significantly influence retention or the lack thereof in various fields (De Stercke et al., 2015; Kundu & Lata, 2017; Vasterling et al., 2015).

Military Work Conditions. Work conditions are difficult in the military, but deployments, long hours, and other operational issues can take a further toll on the happiness and retention of military members (Heilmann et al., 2009; Vasterling et al., 2015). Studies also show that military members are chronically sleep-deprived, usually not from their choices, but instead due to operations, work commitments, and misaligned sleep schedules (Shattuck et al., 2018). These issues are known as unavoidable hardships that military service incurs. However, it is not only the members that suffer, as long hours, temporary duty assignments, and deployments have been indicated as detrimental to their families (Knobloch-Fedders et al., 2018, 2020). Surprisingly, even when military members were not deployed, they showed high levels of both physical and emotional fatigue associated with work, which often resulted in negative attitudes and increased attrition (Frone & Blais, 2019).

Potentially in line with these known difficulties, Farrell (2014) found that the USAF has increased the number of active study RPA pilots three-fold since 2008. This increase was mostly due to increased RPA utilization, which has culminated in a significantly increased workload (Farrell, 2014). Additionally, RPA pilots tend often work 10-hour shifts, up to six days in a row, in order to meet mission requirements (Carlisle, 2016). This higher workload and diminished work conditions have driven RPA pilots to report that high operations tempo is a significant factor in whether or not they will remain in service (Stahl, 2015). While the USAF has taken

some actions that can help address difficult work conditions, it has yet to fully analyze and understand the challenges that RPA pilots face when balancing combat operations and their personal lives (Farrell, 2014). When workloads and stress levels are high with limited time for personal outlets, burnout is highly likely to occur (Alarcon, 2011; Hardison et al., 2017; Ouma et al., 2011). This work/life imbalance can be difficult for military members to maintain for long periods of time without affecting their family's well-being (Heilmann et al., 2009). However, when employees experience better work conditions and thus think positively about their career, they tend to show lower levels of dissatisfaction and decreased intention to leave (Geiger & Pivovarova, 2018; Perrachione et al., 2008). Kreuzer (2015) notes that organizations that hope to develop a culture of innovation must recognize and appreciate their employees rather than continuing the status quo of employee burnout and unhappiness.

Education Work Conditions. Poor work conditions have been identified as one of the most influential predictors of educator retention (Horng, 2009; Ingersoll & May, 2012). Similar to employees in other organizations, educators base much of their career decision-making on salary and work conditions, and their commitment to the organization is based heavily on these factors (Ladd, 2011). Additionally, poor leadership is noted as influential in work conditions and subsequent educator turnover, while quality leadership was found to be a mediating factor to poor work conditions with regard to educator retention (Ladd, 2011; Torres, 2019). Schools with worse work conditions and problems hiring or retaining teachers are known to hurt lower-income students that historically attend these schools in higher numbers than students from wealthier families (Horng, 2009). These complex facets of work conditions play into an educator's job satisfaction, which is not only indicated in influencing retention but also in teacher productivity and student performance (Geiger & Pivovarova, 2018; Tehseen & Hadi, 2015).

Impact on National Defense

Technology is known to act as a force multiplier in war, and it is vital to the timely and successful achievement of military objectives (Fahey & Miller, 2017; Kreuzer, 2015; Winnefeld & Kendall, 2013). One technological advance proven to be valuable to the United States' military objectives is the advent of unmanned aircraft. The United States Air Force flies 60 RPA combat lines and employs over 8000 Airmen to support this mission, spread out across the world at 15 RPA units, providing 24/7 combat capabilities unlike any other airframe (Carlisle, 2016). RPAs are a crucial support to increasingly common asymmetric warfare, as they are able to prosecute highly valuable targets without being detected (Israel & Nesbit, 2004; Phillips-Levine, 2020). This is due to the ability of unmanned aircraft to operate in environments that manned aircraft cannot, such as biologically or chemically contaminated surroundings, impossibly high altitudes, and denied environments (United States Air Force, 2005).

In addition to environments that manned aircraft cannot survive, RPAs are also able to exceed the endurance and time on station that humans can provide (Johnson et al., 2003). With greater endurance, these aircraft are able to decrease the cost of repairs that are common with repeated landings and takeoffs, fewer aircrew are deployed to dangerous areas, and military operations are able to have smaller logistic footprints, all without sacrificing mission capabilities (United States Air Force, 2005). RPAs have been indicated as invaluable to national defense objectives, as these flexible, durable aircraft are able to carry various weapons load-outs, integrate with other manned assets and ground forces, and provide intelligence in reference to both friendly and enemy locations, air defense systems, and high-value targets (Johnson et al., 2003; United States Air Force, 2005; USGAO, 2020). Due to unmanned aircraft's varied uses,

the RPA field has expanded into one of the most versatile and beneficial homeland defense tools while simultaneously becoming cheaper and easier to apply in theater (Fleming et al., 2015).

While the benefits seem innumerable, one area where technology has been indicated as unstable is in the RPA community due to the previously mentioned pilot retention problems. The United States Government Accountability Office (2005) recognized that the DOD has struggled to consistently implement practices that allow for optimal development and application of RPAs, which has driven the potential for failures in national defense objectives. It has even been noted that the crippling pilot shortages in the USAF have begun to take a toll on the military's ability to protect national security and accomplish its national objectives, leaving the country open to threats from its enemies (Bressett, 2018). Much of this problem is due to the highlighted retention problems that have led to roughly 30% of RPA pilots having to be replaced in the USAF each year (USGAO, 2020). As RPA pilots continue to face occupational burnout and resultant mental health problems, among other issues, this problem cannot be expected to resolve itself (Chappelle et al., 2014; Tennies, 2019). The RPA enterprise and the ever-growing demand for its use must be supported in order to continue defending the nation (Carlisle, 2016). If the United States hopes to maintain its position as the most dominant force in the aerospace industry and military fields (Grieco, 2018; Soshkin, 2016), it must find a way to reconcile its pilot retention issues that have been indicated repeatedly as only continuing to spiral out of control (Bressett, 2018).

Summary

The USAF has faced a climbing retention problem in many of its career fields, but the most significant attrition rates are found in the aviation community (Bressett, 2018; Thompson, 2018). This is particularly true of RPA instructor pilots, where attrition is high, and motivation is

low (Hardison et al., 2017; USGAO, 2020). It was determined that Vroom's (1964) expectancy theory and Herzberg et al.'s (1959) motivation-hygiene theory provide a valuable framework to examine these problems. The use of Vroom's (1964) expectancy theory allowed for the examination of perceived career rewards and their influence on resultant job performance (Barba-Sánchez & Atienza-Sahuquillo, 2017; Purvis et al., 2015). Additionally, Herzberg et al.'s (1959) motivation-hygiene theory offered a construct to assess how intrinsic and extrinsic factors influence job satisfaction and resultant motivation (Alshmemri et al., 2017; Stello, 2011). Together these complementary theories were applied in this study to describe the factors that motivate MQ-9 instructor pilots, drive burnout, affect satisfaction, and influence attrition rates (Alshmemri et al., 2017; Purvis et al., 2015).

As technology has advanced over time, so has the aviation community with the advent of airframes that are operated without pilots physically present (Kreuzer, 2015; Shaker & Wise, 1988). As RPAs are unique aircraft that are operated remotely, unlike previous airframes, their pilots face new and unique challenges (Chappelle et al., 2014; Hardison et al., 2017). One key challenge facing the MQ-9 career field is the difficulty of retaining highly qualified instructor pilots (Hardison et al., 2017; USGAO, 2020). With MQ-9 instructor pilots being both educators and military members and retention a common problem in both career fields, a complex problem exists (De Stercke et al., 2015; USGAO, 2020). Military leadership has faced problems with retention for decades, and the USAF is no exception (Asch, 2019; USGAO, 2020; Wilcove et al., 1991). Similarly, educators have faced a growing retention problem in recent years, with little progress having been made to correct it (Geiger & Pivovarova, 2018; Gonzalez-Escobar et al., 2020).

Due to the unique combination of military workplace demands and educational operations, MQ-9 instructor pilots face many factors that influence their decision to leave the USAF, such as compensation, organizational culture, leadership influence, mental health struggles, and work-life balance (Armour & Ross, 2017; Kim et al., 2020; Shabane et al., 2017). Unmet needs, low motivation within the workplace, and the resultant likelihood of employee attrition drive significant national defense concerns, highlighting the value of researching this issue(USGAO, 2020; Licklider, 2011). These pilots cost millions of dollars and years of training to generate, which has caused an expensive and time-consuming problem when they terminate their careers early (Farrell, 2014). Through building an understanding of the unique problems that MQ-9 instructor pilots experience, as well as the factors that influence their decision to terminate their career, the USAF is likely to find solutions that correct the underlying issues, rather attempts to recover from retention problems after they become catastrophic.

Although the issues in military aviation are well known, what is not understood is which of these factors instructor pilots find to be the most influential in their decision to seek alternate employment. As both educators and aviators, these issues are likely more complex than in either career field alone. Thus, this gap in the literature has been identified and warrants further research. Using motivational theories as a framework, this transcendental phenomenology has provided an opportunity for the gap in the understanding of which factors USAF MQ-9 instructor pilots consider when choosing to terminate their career to be better understood.

CHAPTER THREE: METHODS

Overview

The purpose of this transcendental phenomenology was to describe the shared experiences of MQ-9 instructor pilots who were considering discontinuing service at the USAF's MQ-9 FTU. This area of research has had limited exploration in the scholarly research, especially as it relates to the lived experiences of these instructors. Chapter three begins with a presentation of the research design and subsequent research questions, setting, and participants of the present study. Additionally, chapter three provides an explanation of the procedures, data collection, and analysis employed throughout the research. Finally, this chapter concludes with an examination of trustworthiness, ethical considerations, and a summary of the project at hand.

Research Design

Qualitative research has been identified as the perfect fit for research that is centered on the development of an understanding of feelings, behaviors, or perceptions, but limited knowledge has been gathered on the topic (Creswell & Poth, 2018; Rahman, 2017). Further, qualitative methods are able to help researchers define and discover the actions and experiences of an individual's everyday life, as well as the decision-making process they use to navigate those actions and experiences (Denzin & Lincoln, 2018). Thus, a qualitative research design was chosen for this study, as it allowed for the capture of stories and lived experiences of members within the MQ-9 instructor pilot community, providing an opportunity to truly understand the perspectives and feelings that may be driving their attrition (Merriam & Tisdell, 2016; Patton, 2015).

This qualitative research study was formatted as a phenomenology, allowing for the shared experiences of MQ-9 instructor pilots who choose to terminate their career to be

described in rich, robust detail (Creswell & Poth, 2018; Moustakas, 1994). This research design focused on capturing the significant thoughts and phrases that defined a shared experience that individuals lived collectively, highlighting the humanity and feelings of each participant (Moustakas, 1994). Though there are various types of phenomenology, including transcendental, existential, and hermeneutic, this study followed the structure of a transcendental phenomenology due to its inherent ability to allow researchers to bracket out their biases while still capturing the essence of the participants' lived experiences (Moustakas, 1994; Yüksel & Yildirim, 2015).

This structure consisted of epoché development where I identified and set aside my own experiences and biases, followed by data capture of ten participants who shared similar experiences in the MQ-9 instructor pilot community, and finally the analysis of this data through horizonalization and meaning cluster creation, which allowed for the description of the essence of how these instructor pilots experienced their careers (Creswell & Poth, 2018; Moustakas, 1994). This design and its structure were particularly applicable due to my closeness to the study as a member of the MQ-9 instructor pilot community. A further discussion of the origin of transcendental phenomenology and the decision-making behind my design selection further clarified its value in this research.

Origin of Transcendental Phenomenology

Literally meaning the study of phenomenon, phenomenology originated in 1764 from the philosopher Immanuel Kant who used the term to describe the basic structure and understanding of human experience (Padilla-Díaz, 2015; Yüksel & Yildirim, 2015). This concept was built into a qualitative study method rather than a philosophical idea in the 1900s by Edmund Husserl, who sought to describe the existence of phenomena in order to capture their essence (Husserl, 1962,

2017; Van Manen, 2016). This new qualitative research design was created in order to discover lived experiences through personal reflections of participants or co-researchers, creating an understanding of their internal and external perceptions of that experience (Moustakas, 1994).

As this phenomenology developed, Moustakas (1994), one of the leading scholars on contemporary phenomenology, developed what we know as transcendental phenomenology. This form of phenomenology requires a researcher to remove their perceptions from the experience at hand through a process called bracketing, which reduces bias and allows for an understanding of the topic without attempting to explain it or interpret its meaning (Husserl, 2017; Van Manen, 2016). In contrast, other scholars believed that an experience could not be fully understood if the researcher removed their experience from consideration. Instead, hermeneutic phenomenology suggests that the inclusion of a researcher's experience with the phenomena does not introduce bias but is actually a beneficial tool in the interpretation and analysis of experiences (Bynum & Varpio, 2018; Rodriguez & Smith, 2018). While both of these forms of phenomenology carry benefits and detriments, I chose to use transcendental phenomenology, as I sought to describe the essence and understanding of the shared experiences of MQ-9 instructor pilots who chose to terminate their careers rather than integrate my own feelings on the USAF's attrition problem.

Transcendental Phenomenology Selection

I determined this research design was the most appropriate as it allowed for the shared experiences of MQ-9 pilots to be captured regarding the research questions while applying an epoché or bracketing procedure that allowed my biases to be bracketed out and recognized (Moustakas, 1994). Additionally, phenomenology has been identified by multiple studies as valuable to numerous types of educational research settings, making it a valid choice for this type

of research (Abakpa et al., 2017; Neubauer et al., 2019; Pramono, 2021). Further, the transcendental type of phenomenology was utilized as it focuses solely on the individuals' experiences rather than the researcher's experiences or understanding of the problem being examined (Husserl, 2017). As I was able to set aside my own preconceived notions and experiences in the career field through self-reflection, this research design allowed the best opportunity to capture a glimpse of what the lived experience of MQ-9 pilots who chose to terminate their career truly consisted of.

Research Questions

This research was designed to describe the shared experiences of USAF MQ-9 instructor pilots who choose to terminate their career through a transcendental phenomenological design, giving these instructors a voice and an opportunity to develop a channel of communication with senior leadership (Moustakas, 1994). Thus, the study sought to answer the following research questions:

Central Question

What is the shared experience of USAF MQ-9 instructor pilots who are considering discontinuing their military career?

Sub-Question One

What is the decision-making experience of USAF MQ-9 instructor pilots who are considering discontinuing their military career?

Sub-Question Two

How do USAF MQ-9 instructor pilots describe the impact of their career on their family's quality of life?

Sub-Question Three

How do USAF MQ-9 instructor pilots describe the challenges of creating work/life balance in their career?

Site and Participants

In phenomenological research, the participants can be located at a singular site or at multiple sites (Creswell & Poth, 2018). In this study, all of the participants were located at a singular site, as most MQ-9 instructor pilots are collocated at the USAF's MQ-9 FTU or one of its two geographically separated units. For the true essence of a phenomenon to be understood, the participants in a phenomenological study must have shared similar experiences and be able to speak to those experiences; otherwise, it can be difficult to find themes (Creswell & Poth, 2018; Van Manen, 2016).

Site

The site used for this research is the United States Air Force's MQ-9 formal training unit, which will be referenced throughout this paper as "the USAF's MQ-9 FTU." The site is located on an Air Education and Training Command (AETC) Air Force base. The USAF's MQ-9 FTU houses every active duty training squadron that the USAF uses to train its future MQ-9 pilots, thus making it the hub of MQ-9 training. Due to its centrality to the USAF's MQ-9 training mission, this location was chosen to examine MQ-9 instructor pilot retention. Further, the end of the timeline of an average MQ-9 pilot's service commitment aligns well with this location. This is due to the fact that the six-year service commitment ends for many MQ-9 instructor pilots while they are assigned to the unit. Thus, the main rationale behind why this site was selected is the fact that there are no known studies that examine the shared experiences of MQ-9 instructor pilots who terminate their career, even though 30% of these instructor pilots need to be replaced every year (USGAO, 2020).

The leadership structure of the USAF's MQ-9 FTU is similar to other military installations. Four training squadrons made up of MQ-9 instructor pilots are led by their respective squadron commanders, who are in turn led by a group commander and subsequent wing commander. This hierarchy is a USAF standard. Each squadron governs its training operations in accordance with the guidance provided by its upper leadership but does so in slightly different ways. Individual squadron departments of training, scheduling, and standardization and evaluation may have differences between squadrons.

Participants

The participants for this study were gathered from the USAF's MQ-9 FTU, and the desired sample size was 10-15 instructor pilots, drawn from a sample pool of over 200 MQ-9 instructor pilots. This number of participants was selected for two reasons, to create the maximum variation possible and to provide saturation. Referencing maximum variation, Creswell and Poth (2018) reference the fact that a diverse participant pool is required in order to generate variation, where a complete story that captures multiple perspectives can be told. Further, this size participant pool allowed for saturation, which is defined as complete when no new information, themes, or code elements are produced with further data collection and enough data has been collected so that future research may replicate the study (Creswell & Poth, 2018; Fusch & Ness, 2015). Many studies in the phenomenological research field indicate that a sample size of between 10-12 participants is appropriate to create saturation to nearly 100%, and thus drove this study's sample size (Francis et al., 2010; Guest et al., 2006; Wilson, 2015).

A purposive type of sampling method was applied in this transcendental phenomenology. This was the best choice for participant selection in this scenario as it could produce a group of 10-15 participants that provided the most relevant and useful data for the study (Creswell &

Poth, 2018). Utilizing purposive sampling was beneficial in understanding the experiences of the average MQ-9 instructor pilot who chooses to end their military career (Patton, 2015). Using this sampling methodology, I electronically contacted all members from the four training squadrons to identify participants, asking for members who have decided to terminate their military career to respond. Individuals who indicated that they were considering termination of their career and were within one year of their separation from the military were selected as participants. This one-year timeframe was established in order to collect the most time-relevant and appropriate information.

Further, I also employed snowball sampling, as participants were queried as to whether or not they knew any other instructor pilots who were considering ending their military career (Patton, 2015). These additional participants were offered the opportunity to respond with their intent on career termination, and those who responded that they did not intend to continue their USAF career were offered the opportunity to participate in the study. Rank, gender, race, ethnicity, and religious background were not considered in this study, but equal opportunities were offered to any who wanted to participate and meet the previously mentioned criteria.

Researcher Positionality

In qualitative research, it is imperative that a researcher understands and declares their positionality through identifying the framework that will guide their research, their inherent assumptions or bias, and their role in the research. In order to understand positionality, a researcher must use reflection and reflexivity to question their thought processes (Hibbert et al., 2010). Through the identification of my positionality, I highlighted the influence that I may have had over the knowledge this study generates (Corlett & Mavin, 2018).

Interpretive Framework

The research paradigm that this study's theoretical framework was built upon is post-positivism through a social science theory lens. Post-positivism is found in the study in its logical, empirical structure that allows for the examination of various points of view from participants rather than one singular truth (Creswell & Poth, 2018). Further, in line with Creswell and Poth's (2018) teachings, this study was designed to utilize various data collection methods, NVivo software to improve validity and repeatability, and recognized that cause and effect is a probability, aligning it well with the post-positivism framework. Utilizing this framework alongside a social science theory lens allowed me to better understand and report the emotional and social issues that MQ-9 instructor pilots face when considering terminating their careers.

Philosophical Assumptions

As with any research, this transcendental phenomenology contains philosophical assumptions. With my knowledge and closeness to subject matter within this study, I brought certain assumptions to the interpretative framework of this study, which included axiological, epistemological, ontological, and methodological assumptions (Creswell & Poth, 2018). Being a member of the MQ-9 instructor pilot core, I have shared in most of the experiences that may be influencing the retention problem and will have a closeness to these members, inserting the potential for ontological, epistemological, and axiological assumptions to be present. It is important that this bias is acknowledged early on so that it may be recognized and managed throughout the research (Creswell & Poth, 2018).

Ontological Assumption

From an ontological perspective, I recognized that my own reality and knowledge of the situation was not the only reality possible. I acknowledged that each individual has personal thoughts, feelings, and opinions that influence their understanding of the lives they live. Each

MQ-9 instructor pilot will have a different reality that they have experienced, and my role as the researcher was to provide them an opportunity to share those experiences with others. The reality of the MQ-9 instructor pilot retention problem varies from individual to individual, as military leaders are unable to agree on the best solution to the problem, with the problem being brought up over 15 years ago (USGAO, 2005). Understanding that this reality varies helped me to reduce my own bias and report the data honestly. Further, I recognized that methodological philosophical assumptions were present, as this transcendental phenomenology developed and evolved as each member's data were recorded and analyzed. With this ontological assumption of multiple understanding of the world being possible, this study had the capability to adapt as new and unexpected themes developed as the data were gathered.

Epistemological Assumption

Epistemological assumptions pertain to a researcher's relationship to what is being studied in the research, and these assumptions allow researchers to get closer to the problem being researched (Creswell & Poth, 2018). As an MQ-9 instructor pilot, I am close to problems within the MQ-9 instructor pilot community, which allowed for this research to contain valuable information on why the USAF is experiencing such high levels of attrition. The importance I placed on the need for this research came from a place of intimate understanding. As an MQ-9 instructor pilot at the USAF's MQ-9 FTU, my heart ached when I saw another strong leader and pilot choose to end what could have been an illustrious and meaningful life-long commitment to the USAF. I have spent the last five years of my career watching friends, subordinates, and leaders alike struggle through the operational burnout and exhaustion that the pilot manning crisis has caused. We regularly hear that the issues within the community should be getting better as the USAF ramps up training and hiring, but it does not appear to be enough to contend with

the number of pilots who leave. While being personally close to this topic introduced epistemological assumptions, it also provided me with a deeper understanding of the participants and a deeper connection to the research at hand (Creswell & Poth, 2018).

Axiological Assumption

Being close to the MQ-9 instructor pilot community, I brought axiological assumptions into this research. However, in order to reduce the appearance of bias, I freely disclosed this connection to the community and bracketed my values using the methodology provided by Moustakas (1994). As an MQ-9 instructor pilot in the USAF, I see the value that the MQ-9 community brings to protecting our nation and its allies. I have also seen the avoidable mistakes that are made when a career field is overtired, undermanned, and not adequately supported. I believe that the MQ-9 is an adaptable aircraft necessary to the future of warfare (Karas, 2017). Namely, I believe that the lack of foresight and preparation that our military has completed has "taken a toll on the service's capability to provide national security and achieve national objectives" (Bressett, 2018, p. 1). Further, I am concerned that if the military's leaders are unable to find a solution to the USAF's pilot manning crisis, the resultant security implications for the country could be grim. Through acknowledging where my values lie and identifying my personal beliefs about the subject, the inclusion of bias was reduced (Creswell & Poth, 2018).

Researcher's Role

My main interest in conducting this case study research was to describe the shared experience of MQ-9 instructor pilots who choose to terminate their careers, allowing for potential solutions to this problem to be identified in future research. My goal in conducting this study was to open a line of communication between instructor pilots and senior leadership in the MQ-9 community in the hopes of solving this ever-growing retention problem before it becomes

something that cannot be resolved. The role I played in the research was as a human instrument and facilitator for these members to be heard by the USAF in a safe and anonymous way that potentially allowed for others to help correct these issues (Lincoln & Guba, 1985; Peredaryenko & Krauss, 2013). These feelings and stories were the primary source of knowledge and were meticulously captured in line with Moustakas' (1994) methodology. I personally distributed and collected recruitment letters, conducted interviews and focus group sessions, and distributed and collected writing protocol documentation. I further transcribed recordings and analyzed the data gathered from each participant. With the study being a transcendental phenomenology, I took the time to contemplate each participant's experiences in order to capture their perspective in a subjective manner (Moustakas, 1994).

There was the possibility of professional workplace relationships existing between myself and the participants, but I maintained my professionalism and non-bias throughout the process by candidly stating this information to both the participants and in this research. In order to maintain awareness of my bias, I kept all of my notes throughout the process in one document so that I could understand and follow my thought process transparently. None of the selected participants were my subordinates or students, nor anyone I have been in a supervisory or instructional role over before in order to limit any potential bias from the participants. My main goal was to create an environment of trust where participants felt safe and validated throughout the interview and focus group processes. To further build on this foundation of trust, I offered the participants the opportunity for their withdrawal from the study and the destruction of their data up until the completion of the research. I also safeguarded all such data and personal information, including the research site's identifying information, as well as the identifying information of participants.

Procedures

This section discusses how I received permission to conduct this study and how I identified and selected participants. The first step in any quality research was receiving permission from both the Institutional Review Board (IRB) and the leadership at each research site. Without these permissions, the research could not commence, nor would it be credible. Upon approval, participants that have shared similar experiences were identified and selected. Once they were selected and fully understood the study's expectations, data collection commenced.

Permissions

Regarding the procedural process, the first step was to receive approval for the case study from the IRB before the collection of any data (see Appendix A). Secondly, site approval was requested via a letter to the USAF's MQ-9 FTU's wing commander in order to conduct research appropriately (See Appendix D). Once IRB approval was received, and permission was granted by the wing commander, participant recruitment began.

Recruitment Plan

MQ-9 instructor pilot participants were selected, as previously mentioned, through purposive sampling, via an electronic query to members of each of the four squadrons that were identified as meeting the study criteria (see Appendix C). Upon confirming that they were planning to terminate their USAF career and that they were within one year from separation, participants were selected. Each selected participant was provided with a consent form (see Appendix B), identifying the reasoning behind the study, as well as the expectations and details of the study. The recruitment letter highlighted that in order to maintain confidentiality, the researcher would conduct all data collection off-site and would provide pseudonyms.

Once participants were selected and agreed to participate, the protocol writing,

interviewing, and focus group sessions will commence. These interviews and focus groups were conducted off-site at a location convenient to myself and the participant that will provide a quiet setting. The off-site location improved participant anonymity, limiting the knowledge of their participation to myself and the other participants. All participants were asked to complete the protocol writing, as well as participate in both the interviews and the focus group sessions. The interviews served as a forum where I could collect rich data related to each individual's experiences as an MQ-9 instructor pilot.

The role of the focus groups was to create an environment where members felt safe in sharing their honest opinions and feelings with myself and other participants. Both of these interviews and focus group sessions were recorded with an audio recorder followed up with a professional transcription, as well as the researcher's notes during the sessions in order to collect themes and identify the essence of the participants' shared experiences. The protocol writings instructions were provided at the conclusion of the individual interview, with the direction that they must be completed and returned within one week (see Appendix E). All participant responses were collected and inputted into the NVivo software program for organization and analysis. This information was then be synthesized and then further coded for the identification of themes between members. Once all data were compiled, I developed textural and structural descriptions of the experiences in order to identify and highlight the essence of their lived experience (Moustakas, 1994).

Data Collection

In the research at hand, data were collected from interviews, focus groups, and protocol writing. Once IRB approval was received and permission was granted by wing leadership, data collection began. The first stage of data collection consisted of individual interviews. Once

individual interviews were completed, focus groups were conducted, and the subsequent data were collected. Concurrent with the interviews and focus groups, participants were asked to complete a protocol writing exercise in which they wrote a letter to future MQ-9 instructor pilots containing both their positive and negative experiences in their career and advice on how to manage any challenges they have faced as an MQ-9 instructor pilot. All of the above information was collected, transcribed, triangulated, and then placed into a locked container or password-protected document for their protection and maintenance of anonymity. Once the information was collected and transcribed, individuals were asked to check the validity of their response transcriptions and provide corrections as required.

Individual Interviews

In this research, interviews were the first stage of data collection. One-on-one interviews are the primary data collection method in transcendental phenomenological research, as they allow for a comprehensive account of an individual's experience to be collected (Englander, 2012; Moustakas, 1994). Interview conduction allows for researchers to identify data and information that cannot be directly observed in everyday life (Patton, 2015). Each interview was conducted in a one-on-one setting where the individual was able to feel comfortable in providing candid and honest answers, enhancing the ability for the participant to feel respected. In the event that any member is not available to meet physically, the interviews were conducted electronically with a video interface. The duration of each interview was between 20 minutes and one hour. The following questions (Appendix G) were posed to the participants:

Individual Interview Questions

1. Please introduce yourself to me as if we just met one another.
2. Please walk me through your USAF MQ-9 career thus far.

3. Of those experiences that you identified in your MQ-9 career, which would you say were the most significant?
4. What made them significant?
5. What else would you like to add to your timeline that has not yet been captured?
6. In what ways have the experiences in your MQ-9 career influenced your life thus far? (CQ)
7. What is the main influence behind your decision to terminate your MQ-9 career? (CQ)
8. How has your MQ-9 career affected your future professional endeavors (i.e., education, career, etc.?) (CQ)
9. If applicable, how has a personal or second-hand experience of discrimination, harassment, or intolerance in your MQ-9 career influenced your decision to terminate your military career? (CQ)
10. If applicable, how has the difference between your current compensation and that of your civilian counterparts influenced your career decision-making? (SQ1)
11. If applicable, how has a career-field based monetary re-signing bonus influenced your career decision-making? (SQ1)
12. How does the time off you receive from work compare to your civilian counterparts? (SQ2/3)
13. How often do you feel burdened by the need to bring work home with you or tend to work-related problems outside of the duty day? (SQ3)
14. How has your workload over the course of your MQ-9 career influenced your decision to terminate your career? (SQ3)
15. How does your family feel about your MQ-9 career? (SQ2)

16. How does the time away from your family during deployments, temporary duty, etc. affect your family? (SQ2/3)
17. How has the possibility of deploying influenced your decision to terminate your career? (SQ2/3)
18. How has your mental health been influenced by your MQ-9 career? (SQ2/3)
19. How has leadership over the course of your MQ-9 career influenced your decision to terminate your career? (SQ3)
20. What other factors positively or negatively influenced your decision to terminate your career? (SQ1-3)
21. What other information would you like to be considered in the development of this research?

All of the interview questions were designed as broad, open-ended questions that allowed for rich, substantive data to be collected regarding the USAF's attrition problem (Moustakas, 1994). The first five interview questions are general knowledge questions that were designed to establish a timeline for participants' involvement in the USAF. These questions also helped break the ice between the participants and myself, as well as establish a general rapport that helped make the more complex questions easier for the participant to answer moving through the interview (Patton, 2015). These questions may be adjusted or lead to further questions depending on the individual participant's answers. Once the base questions were offered, and a friendly rapport was established, the interview questions shifted to a personal, career-oriented nature.

Questions six and seven provided an opportunity for the participant to identify the influence of their military career on their life, either positive or negative, as well as describe the main reason why they are terminating their careers. This provided the opportunity for a true

understanding of the many potential perspectives of each individual participant to be examined, as some members may not be terminating their careers for negative reasons. This helped significantly with the creation of textural and structural descriptions, as all perspectives were considered, not just those that aligned with my personal thoughts about their possible experiences (Moustakas, 1994). As the ADSC of an MQ-9 pilot is roughly six years, this is a significant portion of the participants' lives, making questions about their career's influence on their life valuable to this study.

Question eight assessed whether or not professional opportunities have influenced the participants' career decision-making. Military educational benefits have been indicated as a significant influence as to why some Americans join the military (Bass, 2019). Research has shown that transitioning from a military lifestyle to pursuing a college degree can be very difficult for military members, as they may feel alienation or have significant age differences from their peers (Smith et al., 2017). Question nine examined whether or not harassment within the workplace has influenced the participants' career decision-making. Harassment within the military has been shown to hurt unit cohesiveness and member outcomes, and its occurrence is still increasing (Bell et al., 2018; Harris et al., 2018; Sadler et al., 2018). Recent research that examined over 12,000 soldiers has shown that sexual harassment within the military can increase the risk of suicide up to five-fold, indicating the importance of understanding whether or not this factor contributed to the participant's career termination (Griffith, 2019).

Questions 10 and 11 assessed the influence of compensation on a participant's decision to extend or terminate their career. The DOD uses revenue as an incentive for military service, often offered as bonused, hazard pay, aviation pay, and non-monetary benefits like healthcare and retirement benefits (USGAO, 2017). These questions assessed the participant's feelings

toward the USAF's compensation for their efforts. Questions 12-17 investigated the participant's off-time, family support, and quality of life concerning their career. The fatigue associated with the MQ-9 career field has been highlighted in numerous studies, which can influence family member happiness, and drive further factors that influence the participant's decision to terminate their career (Armour & Ross, 2017; Chappelle et al., 2014). Further, the work-life balance that a member experiences can influence employee turnover and burnout (Chappelle et al., 2014). These questions provided an opportunity for the participant's work-life balance and family life to be investigated. Stress and resultant mental health problems for MQ-9 instructor pilots and their families have been identified as a significant problem within the USAF (Baer, 2019; Reardon et al., 2016). Question 18 provided an opportunity for the participant to discuss their career's influence on their mental health.

Leadership has also been indicated as a significant factor in employee retention and happiness (Book et al., 2019). This holds especially true in military settings, as a leader's influence has been shown to have a strong influence on a member's intention to quit and program satisfaction (Gonzales, 2016). Question 19 allowed the participants a chance to discuss the leadership quality they have experienced throughout their careers. The final questions 20 and 21 offered one last opportunity for the participant to add any information that may have been missed.

Individual Interview Data Analysis Plan

The first step in analyzing the individual interviews was to transcribe the audio files into a digital written format. I used the NVivo professional transcription service to transcribe the audio recordings into a written format. When the transcription was complete, I verified its accuracy personally by listening to the audio while reading the transcription and making

corrections as necessary. Once correctly transcribed, I imported the transcriptions into NVivo software for organization and coding. Utilizing the data analysis spiral technique recommended by Creswell and Poth (2018), I read through each of the transcripts, took notes on my thought process, and assigned codes to ideas that occurred regularly throughout the transcript in NVivo. Once I completed this coding process for each individual interview, I was able to search for themes across the data set. In order to identify and categorize the themes between the experiences highlighted in each of the individual interviews, I used thematic analysis as described by Braun and Clarke (2006). This technique allowed me to find and describe patterns in the data in deep, rich detail (Braun & Clarke, 2006). Following Braun and Clarke's (2006) methodology, I read and re-read my coded transcriptions to find broader patterns between each participant. When identified, these themes were named and reviewed for similarity to other generated themes and then finally narrowed into the most prevalent themes. The themes were finally organized into Table 2 for a visual representation of how often they were present.

Protocol Writing

Upon completion of the individual interview, each participant completed a protocol writing exercise, in which they were asked to write a hypothetical letter to future MQ-9 instructor pilots, identifying the experiences that drove their decision to terminate their career. Protocol writing was simply an opportunity for participants to write down their honest feelings about their experiences, yet it allowed for a description that is close to the original experience (Van Manen, 2015). This type of written narrative is beneficial in qualitative research as it allows for a rich, deep investigation of the phenomenon being researched (Paone et al., 2018). Using writing prompts that require participants to write letters to individuals in the future is commonly used in qualitative research, and particularly in educational phenomenological

research (Colomer et al., 2013; Lindsay & Schwind, 2015; Vagle, 2014). This writing prompt complemented the interviews and focus group sessions in that participants' private thoughts were captured in a setting without distractions. Further, Moustakas (1994) noted that the compilation of multiple expressions of personal thoughts on the phenomenon being studied allows for a deeper understanding of the essence of the experience. Participants submitted the written work via email. They were asked to have this completed within one week of completing the individual interview. The parameters for this protocol writing exercise required that each participant write at least two paragraphs to a future MQ-9 instructor pilot with the following prompt (see Appendix E) in mind.

Protocol Writing Prompt

Based on your experiences throughout your career in the MQ-9 community, what advice would you give to MQ-9 pilots just starting their careers? What stories or examples would you share with them to prepare them for the challenges that they may experience? Would you recommend they do things similarly or differently than you did in your career, and what would you recommend? Who would you recommend that they look to for guidance during their career?

While considering these questions, think of concrete examples of memories where you experienced both positive and negative experiences in the MQ-9 community. Consider not only yourself but also your family and their involvement in your career as you answer this prompt. Provide two paragraphs at a minimum that include examples or advice that you would have liked to have received prior to where you are in your career today. Please do not include your name anywhere in your writing, and do not sign the document in order to protect your confidentiality.

Protocol Writing Data Analysis Plan

Once the protocol writing prompts were completed and collected, they were input into the NVivo software for organization and coding. Similar to that of a journal entry, these letter-writing prompts fell into the category of document analysis in qualitative data collection methodology (Bowen, 2009). Thus, the entries needed to be read to fully understand their content. An example of a participant's protocol writing prompt is provided in Appendix F. Upon gaining a thorough understanding of the written response, quotes or passages were coded and ultimately organized into themes like other qualitative data analysis methods (Labuschagne, 2003). Once the themes were identified and pared down to the most central themes, they were organized into Table 2 for a clear presentation.

Focus Groups

Participants were randomly assigned into three focus groups with three to four members each that took place electronically via video chat software and lasted about one hour. This focus group data collection method allowed for members to have a social experience and interact together to discover previously unconsidered factors that may have influenced their decision to terminate their military career (Patton, 2015). Focus groups are valuable to understanding the shared experiences of the participants due to the collective awareness that is created when multiple participants are able to discuss their feelings and stories (Creswell & Poth, 2018). This formatting also encouraged a feeling of security or consensus that is not offered in one-on-one interviews, allowing for new or more rich data to be collected. The following questions (Appendix H) were posed to each group:

Focus Group Questions

1. What has been the greatest influence on your decision to terminate your career?
2. How would your family describe your MQ-9 career?

3. How has your workload influenced your decision to terminate your career?
4. How have your leader's actions influenced your decision to terminate your career?
5. How has income influenced your decision to terminate your career?
6. How, if at all, do you believe that your mental health has been affected by your military career?
7. What other factors not mentioned previously are influencing your decision to leave the USAF?

The focus group questions were similar to the interview questions but allowed for more room to expand on interrelated experiences. They focused heavily on intrinsic and extrinsic motivational factors, such as internal motivation to succeed or complete tasks, and external motivation, such as monetary gain or recognition. The structure of the focus group questions allowed for the members to create and feel a shared awareness that allowed for themes identified in the individual interview to be expanded upon (Creswell & Poth, 2018; Patton, 2015). Participants were able to somewhat steer the focus group into areas that they felt were not adequately covered or that influenced their decision to terminate their career. Question one opened the lines of communication between focus group members, allowing for a common ground to be established, as well as their similar experiences to be shared. Gay et al. (2006) suggest that utilizing these types of questions in group interviews allows for the creation of a positive environment, providing an opportunity for rich qualitative data to be gathered.

Questions two allowed participants to share the similarities or dissimilarities between their familial support and family quality of life, both of which have been indicated as weak points in military members' lives. In particular, spouses may feel the weight of their counterpart's career, feeling as if they are not a priority (Mailey et al., 2018). Military members

have been shown to have a tendency to have to bring work home with them or be called in once off-duty, which question three assesses for each participant (Heilmann et al., 2009). Question four allowed the focus group to discuss the military leadership they have encountered, as leadership ability has been noted to influence military retention and turnover (Gonzales, 2016). Question five offered the focus group a chance to discuss their financial compensation, potential financial struggles, and their financial futures, as these are issues that may influence military members to seek civilian employment.

Question six provided an opportunity for the group to discuss the influence of their career on their mental health. Although improvements have been made for compensation in the MQ-9 community, it is still referenced as an influential factor in the retention problem (USGAO, 2020). Mental health struggles are another important and commonly referenced issue within the MQ-9 community, often driving pilots to desire to leave or even potentially take their lives. As this career field requires the taking of life via weapon strikes, mental health is a highlighted problem that question six assesses (Chappelle et al., 2014). Finally, the last question offered the focus group a chance to steer the conversation in the direction of anything that may have been missed. All of these questions were developed with the intent of fostering interaction between participants, which has been indicated as integral in developing an understanding of the essence of a phenomenon (Mills, 2007).

Focus Group Data Analysis Plan

Similar to the methodology used for individual interview data analysis, the first step in analyzing the focus group data was the transcription of the interviews from audio formatting to a digital written format using the same NVivo professional transcription method as the individual interviews. This data were also input into the NVivo software for organization and coding.

However, unlike the individual interviews, focus group data analysis often occurs currently with data collection. In line with the data analysis methodology of Rabiee (2004), focus group data analysis begins with the skillful facilitation of participant discussion and diligent observational note-taking. Once the focus group interview process was complete, the data analysis became similar to that of the individual interviews. Again, I read and re-read the focus group transcripts, and then once I was familiar with the content, I coded emerging similarities between participants' statements via NVivo software. Similar to the individual interviews, Rabiee (2004) suggests utilizing thematic analysis when identifying themes from the codes of focus group data by writing memos in the margins of the transcripts, allowing thematic categories to arise through analysis. Finally, the themes were organized into Table 2 for their visual representation and understanding.

Data Synthesis

Due to the nature of qualitative research, a variety of data sources must be used to create richness and depth in data analysis and subsequent synthesis (Creswell & Poth, 2018). More specifically, phenomenological research amasses a large amount of qualitative data from multiple data collection methods that must be condensed into a clear and concise summarization of the essence of the phenomenon (Creswell & Poth, 2018; Moustakas, 1994). Thus, the research conducted throughout this study incorporated analysis of protocol writing, interviews, and focus groups in order to appropriately capture as many different aspects of the data as possible. During the data collection, I managed and organized the data electronically via NVivo software, as well as utilized a memoing protocol that allowed me to collect and revisit my thought process throughout the research process (Creswell & Poth, 2018; Patton, 1980). Analysis and synthesis included the usage of epoché or the bracketing of my biases and assumptions, phenomenological

reduction and horizonalization that allowed for textural descriptions of the participants' experiences, imaginative variation that allowed for structural descriptions of the participants' experiences, and finally a synthesis of those structural and textural descriptions in order to determine the essence of the MQ-9 instructor pilots' shared experiences (Creswell & Poth, 2018; Moustakas, 1994; Vagle, 2014; Yüksel & Yildirim, 2015).

Managing and Organizing the Data

In order to organize the immense amount of data that qualitative research creates, researchers must have a method of organization from the beginning of data capture or risk being completely overwhelmed (Patton, 1980). To avoid this issue, I converted all hand-written documents into electronic formatting as soon as each interview, focus group, or protocol writing prompt was completed. Throughout the process, I used a consistent naming system so that the large amount of research data were easily navigated (Bazeley, 2013). I then compiled this information into NVivo software for further coding, analysis, and identification of themes (Creswell & Poth, 2018).

Reading and Memoing Emergent Ideas

In order to understand the enormous amount of data that comes in a qualitative research project, researchers must be diligent in reading and re-reading their data in order to develop a thorough understanding of it (Agar, 1980). In order to maintain a thorough understanding, I used strong note-taking skills during interviews and wrote additional notes on each transcript or survey (Creswell & Poth, 2018). Further, I avoided simply describing the data again but instead worked to synthesize the information into higher-level thoughts (Miles et al., 2014). I collected all of these notes into an electronic notebook that allowed repeated reflection upon my thought processes while I collected and analyzed the data. This form of memoing was beneficial in

creating an audit trail that documented my thought process throughout the research process (Creswell & Poth, 2018).

Epoché Development

According to contemporary transcendental phenomenology methodology, the first and continuous process in my data analysis was the use of epoché, also called bracketing, in order to set aside my own biases. Through this process, I was able to avoid making judgments on my participants' experiences and approach the topic as if I were experiencing it for the first time (Creswell & Poth, 2018; Moustakas, 1994). In order to accomplish this epoché process, I first described my connection to the research at hand and discussed my own personal experiences as an MQ-9 instructor pilot throughout this study. With my own experiences bracketed out, I approached each data set with a fresh mind and examined each participant's thoughts, feelings, descriptions of their experience as if it were a singular event that had no attachment to any other, allowing me to create structural and textural descriptions independent of anything else (Husserl, 1962; Moustakas, 1994). This identification and recognition of bias allowed for the data to be viewed without judgment or preconceived notions, focusing completely on the participant's experiences (Creswell & Poth, 2018). This epoché process was completed throughout the data collection and data analysis process in order to maintain my neutrality as the study progressed.

Phenomenological Reduction and Horizonalization

In line with Moustaka's (1994) transcendental phenomenological methodology, the next stage in the data analysis process was phenomenological reduction and horizonalization. The main purpose of phenomenological reduction is to scour the collected data and break down the participants' experiences into rich and detailed textural descriptions (Moustakas, 1994; Yüksel & Yildirim, 2015). Creswell and Poth (2018) define a textural description as a narrative description

that describes the participants' perspectives of their experiences in rich detail. In order to do this, I began with an elimination process, by which I was able to factor out portions of the data that were not applicable to the experience, thus reducing the data. I found vague, non-related, or repetitive statements and ideas and struck them out in order to describe only the features related to the experiences of MQ-9 instructor pilots as they related to their career decision-making and lived experiences. Once I removed that outlying information, I was able to begin horizonalization, where I considered and coded the recurrent themes that represented the experiences of the participants as a whole. These horizons were found through reading the transcripts and protocol writings multiple times, searching for ideas, metaphors, and statements that are consistent between participants' descriptions of their lived experiences as MQ-9 instructor pilots (Moustakas, 1994). As these textural descriptions began to provide themes and horizons across the participants' experiences, I memoed and coded the suspected themes and cataloged them in the NVivo software to avoid confusion. Although every horizon or theme cannot be captured (Van Manen, 2017), I continued to analyze the collected data until no new or significant data revealed itself to me, upon which I moved to the next step of data analysis.

Imaginative Variation

Imaginative variation has been described as the "how" of transcendental phenomenological data analysis (Moustakas, 1994). Once textural descriptions were generated through phenomenological reduction and horizonalization, imaginative variation allowed for structural descriptions of the lived experiences to be generated. In order to do this, the empirical data were used along with my imagination and understanding of the participants' shared experiences to find possible meanings of the experience (Yüksel & Yildirim, 2015). I examined the experiences of each participant from numerous perspectives and attempted to highlight the

underlying factors that created relationships between their experiences and created an opportunity for the shared experiences to occur in the first place. I searched for all possible meanings of how this experience came into existence (Moustakas, 1994). Husserl (1970) suggested that through the use of multiple lenses when examining how the phenomenon occurred, researchers can truly find the essence of the experience by raising their understanding from the facts that they have discovered to the full realm of ideas and meanings that could be present in the participants' experiences. Once I defined these structural qualities and created descriptions, I grouped the experiences' definitions into meaning clusters, using the previously mentioned memoing and coding to organize my thoughts. Upon completion of the structural definitions, I was able to synthesize the textural descriptions with the structural definitions to understand the essence of an MQ-9 instructor pilot's experiences.

Synthesis of the Essence of the Phenomenon

The final stage of transcendental phenomenological data analysis was to synthesize the textural definitions and structural definitions in order to determine the essence of the phenomenon as a whole (Moustakas, 1994). Rather than merely providing a description of the experience of the participants, Husserl (1970) suggested that the experience must truly be understood from the participants' point of view and revealed by their shared experiences. To do this, I took both the textural and structural definitions I discovered and blended them into a narrative that was able to accurately describe the essence of the phenomenon of the shared experiences of MQ-9 instructor pilots who choose to terminate their careers. This narrative consisted of thick, rich descriptions that provided an understanding of the lived experiences and thought processes that drove MQ-9 instructor pilots out of their career fields. Ultimately, this

synthesis of the essence of the phenomenon provided readers with insight into the lives and world of the participants of the study (Bynum & Varpio, 2018).

Trustworthiness

Trustworthiness is central to a qualitative research project. Without it, the large amount of data gathered can be completely meaningless. Trustworthiness has been defined by Schwandt (2007) as the level of quality of research and the inherent value that it presents to the field. In this research, trustworthiness was established with multiple different techniques. Through establishing credibility, dependability, confirmability, and transferability via member checks, reflexivity, transcription, and triangulation, the study's trustworthiness will be created.

Credibility

In order to create credibility, all members of the four training squadrons were offered an equal opportunity to be participants. This discouraged the potential belief that I picked participants that should be in the study based on prior knowledge about their career intentions. Further, I generated data from multiple sources in order to build the most robust picture of the case at hand, which allowed for the greatest level of honesty in the situation to be achieved (Terrell, 2016). Using these multiple sources of data also allowed for triangulation, which improved the data pool from various different individuals and perspectives (Creswell & Poth, 2018). Finally, I employed member checks, where each individual was able to review the transcripts of their participation in the study to ensure the validity of their statements. Members were encouraged to correct any misquotations or misinterpretations of their answers, thus limiting the potential for bias (Creswell & Poth, 2018). The research also received credibility through my reflexivity, where I examined my own personal bias through memoing and

bracketing, as previously discussed. The memoing allowed me to spot bias as it appeared and understand it in order to negate it.

Transferability

Transferability is important within qualitative research, as it allows for the knowledge gained in one environment to be applied to others (Patton, 2015). The main technique in the research that allowed for transferability was the use of multiple different training squadrons at the USAF's MQ-9 FTU. Each of the four squadrons has different leaders, different operating procedures, and different workplace cultures. Due to these differences between workplaces, transferability should be able to be established for different operational environments. The thorough descriptions of the data acquired through this research allowed for the knowledge gained to be applied in other USAF settings, where retention problems may also exist.

Dependability

In order to establish dependability, I first clearly described each of the procedures undertaken throughout the study so that they could be easily understood and replicated. Further, I created an audit trail that allowed for a clear understanding of my thought process. In order to do this, I was meticulous in writing down why I coded specific data into each group during the horizonalization process, allowing for the ability for correction if it did not appear to align with the previous reasoning. The previously mentioned member checks further established these qualities, as the participants were able to provide contradicting information as necessary. Using this methodology allowed for personal biases to be avoided and validity to be established (Creswell & Poth, 2018).

Confirmability

Confirmability is important in qualitative research as it indicates that research findings are unbiased and report the participants' experiences rather than the researcher's beliefs (Amankwaa, 2016). In this study, confirmability was mainly established through the audit trail that allows any reader to see where conclusions were formed from the data. Further, the member checks that took place throughout data collection ensured that any collected information was an unbiased representation of what the participants thought or felt in each of the data collection methods (Creswell & Poth, 2018). Confirmability was further enhanced through the use of multiple data sources and subsequent triangulation, thus allowing for true themes to be identified and limiting the potential for bias from the researcher (Creswell & Poth, 2018).

Ethical Considerations

This transcendental phenomenological study has the potential for some negative impacts to members that were considered. The main impact of concern would be if a participant were to provide disparaging or negative comments toward the USAF, the USAF's MQ-9 FTU, their squadron, or its leadership during interviews or focus group participation. In order to address this, every participant and squadron received a pseudonym to protect the participants' speech. I also received study approval from leadership in order to help the participants feel safe in their decision to participate. To protect each participant's responses, all interviews and focus groups were held off-site from the USAF's MQ-9 FTU to maintain anonymity. Further, I kept all physical documents in a locked container and all electronic documents in a password-protected file. All documents, both physical and electronic, were kept for three years after research completion and then shredded or deleted. Finally, the required IRB approval (Appendix A) and consent form (Appendix B) informed the participants of the voluntary nature of the study and their ability to withdraw at any time and help address any additional ethical concerns that readers

or participants may have, as these outline all of the research's ethical implications. All of these actions on my part negated the possibility of any ethical issues that could arise.

Summary

Chapter three offered a detailed description of the methodology used in this transcendental phenomenological study. The purpose of this transcendental phenomenology was to describe the shared experiences of MQ-9 instructor pilots who were considering discontinuing military service at the USAF's MQ-9 FTU. Within this chapter, the research design, research questions, research site, procedures, and the researcher's role were clarified. Additionally, the method of participant selection, data collection, and data analysis were also discussed. Finally, the study's trustworthiness and potential ethical considerations were highlighted, as well as mitigation techniques. This chapter provided the reader with the ability to critically examine the remainder of the study with an understanding of the procedures and methods used within it.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this transcendental phenomenology was to describe the shared experiences of MQ-9 instructor pilots who were considering discontinuing military service at the USAF's MQ-9 FTU. This chapter discusses the 10 participants from whom I collected data from, as well as some key information regarding their time in service and squadron differences. Further, I present the three themes and nine subthemes identified in both narrative and table formats and the outlier data I found throughout the analysis. In the final section, this chapter presents the participants' shared experiences and responses to my central research question and three sub-questions.

Participants

I utilized both purposive and snowball sampling methods to select participants for the study. The use of purposive sampling allows researchers to pull participants from the study pool who meet all of the study's requirements while ensuring that they have experienced the phenomenon of interest (Creswell & Poth, 2018). The purposive sampling method was used to gather the first participants for the study, while snowball sampling was used to gain additional data sources from recommendations of active participants, further increasing the sample size beyond the initial number (Patton, 2015). Using these sampling methods in combination allowed me to obtain maximum variation in participant demographics and experience while also increasing participation. Of note, the USAF's aviation career field is made up of only 12% people of color, and 6.5% women, which caused demographic variation within the study to be inherently limited, as all 10 participants were male and only two were people of color (Cohen, 2021; Hudson, 2020).

Although sample size can vary significantly between phenomenological studies, research indicates that a sample size of between 10-12 participants yields appropriately rich data (Francis et al., 2010; Guest et al., 2006; Wilson, 2015). Thus, I chose to seek 10-15 participants in order to reach the maximum potential for variation and saturation, ensuring a diverse pool of participants that could provide multiple perspectives without missing any information (Creswell & Poth, 2018; Fusch & Ness, 2015). Any of the roughly 200 instructor pilots at the USAF's MQ-9 FTU that met the research criteria were considered, of whom I recruited 10 participants. Participants' time in service ranged from six to 20 years, and all participants were physically located at one of the four training squadrons at the FTU, except for Instructor Pilot 8, who was located at one of the FTU's two geographically separated training squadrons. Participant demographics are shown in Table 1 below.

Table 1

Instructor Pilot Participants

Pseudonym	Squadron	Years in Service	Marital Status
Instructor Pilot 1	A	6	Single
Instructor Pilot 2	B	7	Single
Instructor Pilot 3	D	6	Divorced
Instructor Pilot 4	A	6	Married
Instructor Pilot 5	C	9	Single
Instructor Pilot 6	B	6	Married
Instructor Pilot 7	C	20	Single
Instructor Pilot 8	E	9	Married
Instructor Pilot 9	C	9	Single
Instructor Pilot 10	A	6	Single

Instructor Pilot 1

Instructor Pilot 1 is a male in his 20s who currently instructs MQ-9 student pilots at Squadron A. He is fluent in both Spanish and English and is originally from the East Coast. He has been in the USAF for six years and has only served as an MQ-9 pilot and instructor pilot. During his career, he has been stationed at both Ellsworth AFB and the MQ-9 FTU. As he is single and separated from his family by over a thousand miles, he cares deeply about the relationships he has formed with friends in the USAF and references them as his "military family."

Instructor Pilot 2

Instructor Pilot 2 is a male in his 30s who is currently on terminal leave in the final days of his USAF career but previously instructed MQ-9 student pilots at Squadron B. He has a breadth of experience in both the MQ-1 and MQ-9 aircraft and has conducted launch and recovery during deployments as well as flying missions remotely. He has been in the USAF for seven years and has been stationed at Creech AFB and the MQ-9 FTU. He places a great deal of value on bettering himself, and he has just completed a master's degree. Instructor Pilot 2 describes himself as a workaholic who finds importance in making his leadership look good through his personal efforts.

Instructor Pilot 3

Instructor Pilot 3 is a male in his 30s who currently instructs MQ-9 student pilots at Squadron D. He is a highly experienced instructor pilot who has earned qualifications as both an evaluator pilot and a designated instructor to train new instructor pilots. He has been in the USAF for six years and has been stationed at both Ellsworth AFB and the MQ-9 FTU. Instructor Pilot 3 is not shy in highlighting the influence his career had on his relationship with his previous

wife and subsequent mental health struggles. He champions the importance of seeking mental healthcare through the military and outside of the tools the military provides, including the Wounded Warrior program.

Instructor Pilot 4

Instructor Pilot 4 is a male in his 20s who currently instructs MQ-9 student pilots at Squadron A. He is a recently qualified launch and recovery pilot and instructor pilot who has been in the USAF for six years. He has been stationed at both Hurlburt Field and the MQ-9 FTU. Instructor Pilot 4 is married with a child on the way and resultantly places a lot of emphasis on the importance of being able to provide his family with a safe environment and access to familial support once his child is born. Being from the East Coast originally, he referenced the fact that it would be difficult to provide this were he to stay in the USAF. He noted that as nearly all MQ-9 bases are in the Midwest of the United States, it is nearly impossible for him to live close to his family without terminating his career.

Instructor Pilot 5

Instructor Pilot 5 is a male in his 30s who is currently on terminal leave in the final days of his USAF career, but previously taught MQ-9 student pilots at Squadron C. He is a highly qualified aviator who has previous experience as an electronic warfare officer in the B-52 before training to be an MQ-9 instructor and evaluator pilot. He has been in the USAF for nine years and has been stationed at Cannon AFB and the MQ-9 FTU during his MQ-9 career. Being young and single, he placed a great deal of emphasis on being unhappy with the duty stations to which he has been assigned. He expressed frustration with the USAF assignment process, as for both of his assignments, he received his bottom choice of base locations while being highly desired by his top locations' commanders.

Instructor Pilot 6

Instructor Pilot 6 is a male in his 30s who currently instructs MQ-9 student pilots at Squadron B. He has been in the USAF for six years and has been stationed at Cannon AFB and the MQ-9 FTU. He is highly educated, with a background in engineering, and cites one of the main reasons for his separation from the USAF as lack of access in the military to transfer these skills, and thus he is seeking civilian employment as an engineer. Additionally, he references the fact that being stationed in very rural places in the Midwest United States is a detriment to his spouse's career, which has caused him to have a single-income household he would not otherwise have.

Instructor Pilot 7

Instructor Pilot 7 is a male in his 40s who currently instructs MQ-9 student pilots at Squadron C. He is a highly qualified aviator who served both as an enlisted crew chief and as a commissioned navigator in the B-52. He has been in the USAF for 20 years and is an instructor, designated instructor, and evaluator in the MQ-9. During his MQ-9 career, he has been stationed at Ellsworth AFB and the MQ-9 FTU. He references intrinsic motivation to be his main reason for terminating his career, as he no longer feels like he is progressing in the MQ-9 community and that for personal growth, he needs to move on.

Instructor Pilot 8

Instructor Pilot 8 is a male in his 30s who currently instructs MQ-9 student pilots at Squadron E. He has been in the USAF for nine years and has only served in the RPA career field as both an MQ-1 and MQ-9 pilot. He has been stationed at Whiteman AFB, Creech AFB, Hancock Field, and one of the MQ-9 FTU's geographically separated units. He is a highly qualified instructor pilot who has conducted launch and recovery during deployments as well as

flying missions remotely. He bases his career decision-making mainly on the fact that his spouse has a successful career, and due to his military service, they have never been able to live together. He wants to start his family and feels that the locations the MQ-9 career field offers are not compatible with balancing his own career, his spouse's career, and the ability to have children.

Instructor Pilot 9

Instructor Pilot 9 is a male in his 20s who currently instructs MQ-9 student pilots at Squadron C. He has been in the USAF for nine years and has been stationed at Cannon AFB and the MQ-9 FTU. He is a highly qualified instructor pilot who has conducted launch and recovery during deployments as well as flying missions remotely. Instructor Pilot 9 stated that the greatest joys in his career come from flight instruction of students, a duty which he wished he could spend more time executing as opposed to his additional duties. Interestingly, he is the only MQ-9 instructor pilot participant who volunteered to come to the MQ-9 FTU location and wishes to stay longer, but has been denied and thus is terminating his career to avoid returning to other locations he deems undesirable.

Instructor Pilot 10

Instructor Pilot 10 is a male in his 20s who currently instructs MQ-9 student pilots at Squadron A. He has been in the USAF for six years and has been stationed at Creech AFB and the MQ-9 FTU. Unlike any of the other participants, he was commissioned through ROTC and pursued aviation as his college degree, earning various pilot certificates. He notes how his career decision-making has been heavily influenced by the fact that he found out shortly before graduation that he would not be receiving a commission as a manned aircraft pilot but as an MQ-9 pilot. This left him feeling stuck, cheated, and frustrated throughout his career thus far.

Results

The purpose of this transcendental phenomenology was to describe the shared experiences of MQ-9 instructor pilots who were considering discontinuing military service at the USAF's MQ-9 FTU. I gathered data from each participant through individual interviews, protocol writing prompts, and focus group interviews. I asked each of the participants 21 individual interview questions. Upon completion of the individual interview, each participant was asked to write a minimum two-paragraph letter to a hypothetical MQ-9 pilot. Finally, I asked each of the three focus group interview groups seven discussion questions to consider and discuss as a group.

The data collection was focused on the central research question and three additional sub-questions. The central research question was: What is the shared experience of USAF MQ-9 instructor pilots who are considering discontinuing their military career? To help answer the central research question, the three sub-questions included the following questions: (1) What is the decision-making experience of USAF MQ-9 instructor pilots who are considering discontinuing their military career? (2) How do USAF MQ-9 instructor pilots describe the impact of their career on their family's quality of life? (3) How do USAF MQ-9 instructor pilots describe the challenges of creating work/life balance in their career? Through data analysis, I identified three themes and nine subthemes that are described in the following section and depicted graphically in Table 2.

Table 2

Codes Leading to Themes

Codes	Themes	Subthemes
Family difficulties (33) Lack of opportunities (28) Bonus ineffective (26) Bureaucratic work (24) Poor quality of life (20) Far from home (14)	Workload	Additional Duties Take Priority Struggle to Balance Work and Life Compensation Versus Effort
Shift work (35) Leadership not caring (29) Unwanted assignment (25) Unpredictability (16) Unmerited promotions (13) Restrictions (10)	Instability	Location Schedule Leadership
Moral injury (30) Support systems (30) Difficulty understanding (18) Mission impact (15) Resiliency (13) Inadequate help (12) Mental health stigma (10)	Mental Health	Tempered Through Exposure Limited Access to Mental Healthcare No One Understands

Workload

All MQ-9 instructor pilots agreed that the military required a great deal of work from them both during official work hours and after hours, especially when discussing the multiple duties they were required to maintain in addition to being an instructor, the difficulty of managing work-life balance, and their compensation relative to their effort. In reference to how difficult managing the workload was throughout his career Instructor Pilot 9 stated,

> I kind of got to see some of the declines for the first time in my life, you know, performance in the areas I had value in starting to decline, and I started to realize

> that really, as much as we don't want it to, what we do and how we get our paycheck basically really does define us in a lot of ways. It takes a lot from us.

This statement emphasized both the mental and physical tolls that such high workloads can have on an individual, resulting in unhappiness and subsequent career decision-making. Instructor Pilot 1 further identified the fact that when a member shows a strong work ethic, their leadership is likely "going to reward you with even more work," as they have proven their ability to manage a high workload.

Additional Duties Take Priority

Every MQ-9 instructor pilot referenced the fact that they had to keep up with at least one additional duty on top of their expected daily instructional duties. Instructor Pilot 9 lamented:

> Flying, teaching a student to fly, launch and recovery, whatever it is, that is my dream job, and I really did enjoy every single bit of it I ever got to do. The stresses of the bureaucracy and the additional duties and vectoring towards FGO [Field Grade Officer], which is where I'm at my career right now, kind of takes a lot of that off the table.

Many also felt that their additional duties took more time and focus than their primary instructional duties. Instructor Pilot 6 highlighted this through the statement, "as aviators, we kind of have more than one job. Flying just kind of feels like our secondary duty," rather than the instructional duty that he had been brought to the FTU to complete.

Struggle to Balance Work and Life

Eight of the 10 MQ-9 instructor pilots agreed that finding work-life balance in their careers was difficult, if not impossible, at various stages or locations throughout their careers. When discussing the requirements of his job, Instructor Pilot 8 stated, "they're always asking

more of you, and you give more. Then you start giving more, and you have nothing else to give, so you start giving the time you spend with your family," and that upon returning from work his wife would often comment "there's nothing left of you" to give their family. Further highlighting how this was the normal expectation and not an anomaly, Instructor Pilot 8 also commented, "you have to do the work because you know it's going to affect your promotion somewhere down the line," indicating that without this effort, members could not advance their careers.

Pay Versus Effort

Every MQ-9 instructor pilot agreed that they were well compensated with money and benefits in comparison to their civilian counterparts, but many referenced the fact that the sheer effort and time they had to devote to their careers could not be counteracted with any amount of money. Discussing the retention bonus, Instructor Pilot 4 was adamant he would:

> Rather have the lifestyle that I want in the location I want, making equal or less than I do now rather than making triple. So, no, the money involved, I would take probably a 50% pay cut to live where I want and not do this job.

While the pay was repeatedly defined as adequate and the benefits were described as above average through all three data collection methods, participants still frequently referenced the fact that they would accept much less compensation if they were able to reduce their additional duties and just serve as instructor pilots. In reference to the money he will be able to earn as a civilian, Instructor Pilot 2 quipped, "I'm not leaving for better pay. I'm leaving for stability."

Instability

All MQ-9 instructor pilots referenced instability as being a key factor in why they were terminating their careers, although there were different facets of instability that were contributing

to their decision-making. The three biggest subthemes that drove instability were the base locations available to MQ-9 instructor pilots, the unpredictability of their work schedules, and the variability of leadership quality. Instructor Pilot 7 was very clear about his feelings toward the USAF after a 20-year career in the statement, “I don't want them to have any say in what I do anymore. I've been a puppet for 20, what’s going to be 22 years, and I just want to say where I go.” While the MQ-9 career field brought a great deal of instability, Instructor Pilot 1 noted that support systems were integral in dealing with these issues, and in his writing prompt, he encouraged future MQ-9 pilots to remember that the “mission will always be there regardless of the squadron, but it is the people that you are surrounded by that will make or break your career.”

Location

Seven out of 10 MQ-9 instructor pilots agreed that their current, past, or potential future duty stations’ location was influencing their decision to terminate their careers. While this subtheme appeared in all data collection methods, it was discussed repeatedly in the focus group interviews, where the participants recognized that very few of them had received assignments at their desired locations. When discussing future location options, Instructor Pilot 3 observed,

> I'm going to the guard component in Tucson just because I'm tired of getting thrown around to other bases, and it just seems like we're the one career field where we can have bases literally anywhere, and all the bases choose to be terrible.

This quote highlights one fact that appeared over 15 times, that while the MQ-9 career field can operate remotely from any location, the bases tended to be in undesirable locations in the Midwest portion of the United States. Instructor Pilot 1 expanded on the difficulty associated with the current basing options with the statement, “a lot of bases are kind of like remote,

desolate areas. Me being from Miami, it kind of gets old and can be tough on your mental health, living in the middle of nowhere America."

Schedule

All MQ-9 instructor pilots referenced the fact that their schedule, either at the operational units or a the FTU, had created instability in their lives. In reference to operational flying and shift work, Instructor Pilot 7 noted, "it's just the sheer overtaxing of how much a body can physically and mentally sustain the ops cycle. The Panamas, the rotating shifts back and forth, you can only take so much of it before it burns you out." When discussing the schedule at the FTU, which some instructors stated was less taxing than operational units, Instructor Pilot 3 thought that,

> Initially, it felt that way, but then you get advanced instructor, you get designated instructor, and you get evaluator, all these add-ons and suddenly the schedulers are shifting you six hours earlier from one day to the other.

This experience goes against an idea that many instructor pilots believe when they receive an assignment to the FTU, which is that it will be a break from the difficulties they faced at operational units such as shift work and rotating schedules.

Leadership

Leadership was defined as a "mixed bag" for MQ-9 instructor pilots, with some leaders being highly positive in influencing participants' desire to continue their career, while others were identified as the sole reason why a participant was terminating their career. This variability of leadership quality and the average timeframe of a USAF squadron commanders' leadership ranging between 2-3 years for each participant was noted as a significant contributing factor. This dichotomy is highlighted between Instructor Pilot 5's reflection on his current leader at the

FTU of, “if we had more people like that, that would also make it more difficult to leave and make me potentially want to stay” and Instructor Pilot 4’s recollection of how his first commander “told me that on our first meeting that I was basically a piece of meat and that's how that's how they would treat us, like assets, and that was a little discouraging.” These significantly different experiences exemplify the instability between leadership experiences that can influence career decision-making.

Mental Health

Mental health and access to mental healthcare within the MQ-9 community are known to be complex and difficult topics to address, particularly when considering the unique problem set MQ-9 pilots face in not being physically deployed when they witness the loss of life or participation in difficult military operations. Instructor Pilot 9 summed up this unique problem set by saying:

> You will be tired and not as healthy, have to pour your efforts into getting that 1% better at all times, view and participate in the horrors of war, and all the while, the vast majority of people in your life will not understand what you are going through.

When speaking about the difficulty of managing his own mental health struggles, Instructor Pilot 9 further stated, *“*I didn't even bother with professional help because I think what we were going through was outside the scope of anybody really understanding it.” Discussion of mental health topics was a constant across all three forms of data collection, showing the importance and prevalence of this theme. Though they occurred repeatedly, the discussions were deeper during the focus group interviews, possibly due to the participants’ ability to commiserate with one another in that format. Although every participant agreed that their mental health had

been affected in some way by their MQ-9 career, Instructor Pilot 3 shared the unique perspective, “where I didn't realize it affected me was in my marriage… when that ended partly due to the mental effects that I didn't understand that I have,” exposing how mental health difficulties can affect both the members and their families even if they don’t recognize it at the time.

Tempered Through Exposure

Nine out of 10 MQ-9 instructor pilots agreed that they had been exposed to traumatic or life-changing experiences, and many discussed the moral injury that comes with the actions taken in their careers. Even the instructors who specifically said that their mental health had not been affected by their MQ-9 career, like Instructor Pilot 6, recognized that his experiences were “always going to be there, and they're never going to go away.” However, many of them explained that they felt these experiences increased their resiliency over time, as they became better at compartmentalization and managing their feelings. In reference to his MQ-9 career, Instructor Pilot 9 noted he felt more resilient overall, although,

> The way it made me a more resilient person was by tempering me against these sorts of things. There's a whole bunch of things that I've seen and even done that were kind of, I guess, interesting. I wouldn't use the word traumatic, but they were. They'll definitely stick with me for life.

Responses like these were common in the individual interviews, as participants were careful to avoid labeling themselves with mental health issues or trauma that could prevent them from flying. This quote not only emphasizes how temperance through exposure and compartmentalization exists within the MQ-9 instructor pilot community but also the fear associated with mental health stigmas.

Limited Access to Mental Healthcare

Regardless of its improved efforts, the USAF still faces difficulties in providing adequate, easily accessible mental health care to its MQ-9 instructor pilots. Instructor Pilot 3 recalled his own struggle to access mental health treatment and said:

> I just think the outreach needs to be better because… you have to be on the verge of doing something drastic before you get to see like a therapist or a psychologist. I went through wounded warrior to get treatment off base because that was faster, and it was better, and it was higher quality than what we had available to us.

Instructor Pilot 8 further highlighted the difficulty of seeking mental healthcare as an aviator, referencing annual mental health questionnaires in the quote,

> Let's be honest, everyone in the flying career pretty much knows you're going to answer no all the way down the line, even if you're feeling bad. Because if you really are feeling bad, they're going to pull you aside and talk to you. But until that point, that breaking point, you're going to be all green because you want to be good to fly.

This quote was echoed throughout the data collection as many participants expressed avoiding discussing mental health with medical professionals or leadership out of fear that their health status would be changed from "green" to "red" and they would lose their flying status.

No One Understands

Every MQ-9 instructor pilot commented on the difficulty of sharing their feelings with others outside of the career field, a topic that repeatedly came to light in the writing prompts, potentially due to their more confidential feel. Some participants felt that they did not want to burden their friends and family with the heavy feelings or stigma that come with the taking of

life they participated in, while others simply felt that their career was too technical to discuss with anyone outside of the career field. Instructor Pilot 10 summed up his feelings with the stark statement:

> I would occasionally, after harder nights, go to the bar with a buddy to try and completely numb myself from all that has happened. It doesn't really work. I don't recommend drinking yourself to death but talk to your bros when you need to. It is likely that your family won't be able to understand.

Instructor Pilot 10 expressed these concerning yet sincere feelings in his writing prompt, a trend which occurred throughout the mental health theme, likely due to the fact that the writing prompts were completed alone in a setting where the participants may have felt more secure in expressing these deep feelings. Instructor Pilot 8 echoed these feelings of unwillingness to share his career experiences with family. He lamented, "my wife still doesn't know what I really do… I've never taken her to a family day because I won't want to expose her to what we really do."

Outlier Data and Findings

While most of the MQ-9 instructor pilots shared very similar experiences that drove their career decision-making, two interesting outlier findings presented themselves through data collection. One participant was commissioned as an officer through a different source than the other participants, which resulted in being assigned to unmanned aircraft with little opportunity to turn the career down. This experience led him to have a significantly different reason for career termination than his peers. Additionally, one participant presents physically as a person of color, which caused discrimination, even if he identified it as joking or harmless, to occur in his workplace. He found that it was part of his career that he had to accept as unchangeable, and he referenced the fact that it has somewhat influenced his decision to leave his MQ-9 career.

Outlier Finding #1: Forced into MQ-9s

One MQ-9 instructor pilot had spent many years training to be a manned aircraft pilot during college and, in the last year of his Reserve Officers' Training Corps (ROTC) program, learned that he would not be considered for anything other than an RPA pilot job. His options had been limited down to paying back the military for his college education or accepting a job he did not want and the associated six-year ADSC. Instructor Pilot 10 stated, "I came into MQ-9's feeling angry and cheated that I wasn't going to be a 'real pilot.' I grew up thinking I would fly and have come to the reality that I most likely will not." Unlike other participants in the study who had the opportunity to turn down their selection for RPAs before signing their USAF contract, Instructor Pilot 10, who was receiving a commission through ROTC, felt backed into a corner and forced to accept a large amount of debt from his aviation education or accept a career he did not want.

Outlier Finding #2: Discrimination

One MQ-9 instructor pilot felt that discrimination was a significant factor in his career decision-making. Of note, this MQ-9 instructor pilot was one of two non-White participants, and he felt that the fact that he was not a White male in a predominantly Caucasian, male career field caused him to receive more stereotyping and verbal harassment than his peers. Instructor Pilot 8 stated that most of his first interactions with other aircrew members consisted of:

> Hey, you're not a White male. We're going to point it out. We'll make fun of it and will laugh it off. I wouldn't say I lose an opportunity, or I get ostracized because of my ethnicity, but it's definitely the first detail noticed and the first detail that gets highlighted.

He further went on to discuss the fact that he did not feel safe to speak out against these kinds of comments because "this is the norm, we're going to accept it…If I speak up, it's going to be weird because I'm the only one that feels that way." Interestingly, this finding came up solely in the individual interview and not in the focus group interview or writing prompt, which may have been due to the intimacy and comfort afforded in the one-on-one interview setting.

Research Question Responses

Through this research, I sought to develop a deeper understanding of the shared experiences of MQ-9 instructor pilots who are considering discontinuing their military service at the USAF's MQ-9 FTU. The research was framed with one central research question and three sub-questions. The central research question was: What is the shared experience of USAF MQ-9 instructor pilots who are considering discontinuing their military career? To help answer the central research question, the three sub-questions included: (1) What is the decision-making experience of USAF MQ-9 instructor pilots who are considering discontinuing their military career? (2) How do USAF MQ-9 instructor pilots describe the impact of their career on their family's quality of life? (3) How do USAF MQ-9 instructor pilots describe the challenges of creating work/life balance in their career?

Central Research Question

What is the shared experience of USAF MQ-9 instructor pilots who are considering discontinuing their military career? The instructor pilots described their experiences as a precarious balance between the mental and physical exhaustion of their job with the pride and accomplishment they felt in instructing future MQ-9 pilots. Instructor Pilot 7 described receiving his instructor qualification as the most influential and important part of his career. He stated that learning "how to instruct, what to instruct, and more-so digging into the publications, not just

giving one avenue approach, but specifically how to instruct to different people" was pinnacle in developing himself as a person and an educator. Many participants noted that this sense of accomplishment was diminished as they increased in experience and rank, as their duties became less about instructing and revolved instead around administrative work. When discussing what the main influences behind his termination were, Instructor Pilot 9 said:

> I would say that a 20-year career seems pretty daunting considering that I'm not even halfway through, and this was probably easy half in terms of responsibilities and stresses and such, especially when you factor in those stresses, become more bureaucratic in nature for the second half of your career.

The concept of career advancement driving a decrease in interaction with students and more time spent tending to additional duties was consistent among instructor pilots throughout all three forms of data collection. Further echoing the lack of opportunity to progress as an educator, Instructor Pilot 3 commented that one of his main reasons for career termination was "not having enough opportunity to do things that I find interesting. I just wanted to go work as an ROTC instructor, or I wanted to work with AETC… but there is no opportunity for me to do that." Unfortunately, when Instructor Pilot 3 expressed interest in these opportunities to increase his educational abilities and broaden his career to higher headquarters, he was informed that in order to properly advance his career, he must return to an operational unit flying the mission due to the fact that he had already completed his instructional duties at the FTU.

Sub-Question One

What is the decision-making experience of USAF MQ-9 instructor pilots who are considering discontinuing their military career? The MQ-9 instructor pilots' perspective is that

their decision-making hinged upon weighing whether or not the effort and work they were expected to contribute instructing were worth their current compensation. In reference to how his workload at the FTU compared to previous assignments, Instructor Pilot 3 commented, “I think I bring home a lot more. I find myself communicating, especially in the student affairs role that I'm in, well past duty hours trying to fix problems.” He found that the expectations of dealing with student problems outside of the duty day combined with “the unpredictability of the schedule at the schoolhouse” were not worth his current level of compensation. In line with this thinking, Instructor Pilot 4 said:

> Coming here [to the FTU] and having a weekend and then being able to be on a relatively consistent sleep schedule, I think for me, it's opened my eyes to like, what normal life can be like and that we don't have to do this like this doesn't have to be normal. It's kind of just put me in the direction of I'm ready to punch in and punch out of the nine to five, and it doesn't have to be at [the FTU]. It doesn't have to be in the Air Force.

Interestingly, this quote shows that experiencing consistency at the FTU actually encouraged Instructor Pilot 4 to seek employment outside of the military, as he did not want to return to the inconsistent scheduling and poor quality of life associated with operational units.

Sub-Question Two

How do USAF MQ-9 instructor pilots describe the impact of their career on their family’s quality of life? MQ-9 instructor pilots described their careers as significantly impactful on their families, specifically in reference to the ability to spend time with and communicate with family. These feelings were highlighted more often in the writing prompts than in any other data collection method, possibly due to their more private nature compared to interviews and focus

groups. When discussing the unique problems that come with remote warfare and family quality of life, Instructor Pilot 10 stated:

> Being at war remotely does cause its issues. The book [*On Killing Remotely*] talks to one of the biggest struggles is that there is no time to decompress from warfare. Unlike all other career fields that require travel to and from the country and have days to decompress, you might only have 30 minutes to go from war to home with your family.

When reflecting on his own family status, Instructor Pilot 10 recognized that "being single is a little easier since you can sleep when you need to and adjust. My friends that had families had a harder time." Able to expand further on the difficulty that the career field's strains had on his family, in his writing prompt, Instructor Pilot 7 encouraged future MQ-9 instructor pilots to "remember that they too suffer from your work schedule, but they can also find happiness so long as you are willing to talk, explain, and listen to your spouse and children. Don't assume they understand. Communication is key." While this quote highlights how important communication with family was to maintain their quality of life, many participants expressed difficulty discussing their careers with family due to the classification of life and death nature of their work, making consistent communication difficult.

Sub-Question Three

How do USAF MQ-9 instructor pilots describe the challenges of creating work/life balance in their career? The MQ-9 instructor pilots described creating work/life balance in their career as nearly impossible at some points in their career. In reference to his MQ-9 career as a whole, Instructor Pilot 9 remarked, "it's no secret that you definitely earn your paycheck in the military, and it's hard work, you know, especially since we're all salaried employees. I mean, it

can turn into long hours for weeks or even months." When specifically discussing work/life balance at the, FTU Instructor Pilot 4 stated, "even though I am not on shift work and I have a normal sleep schedule, the quality of my life is not what it could be or where I wish to live." This feeling was shared by nearly all of the participants, specifically in the focus group interviews where they were able to empathize with one another. Instructor Pilot 8 offered some advice on how to manage this work/life balance problem with the statement, "don't forget you're also human. Take some time for you. The Air Force will demand every waking moment from you, don't let it. Grow the person you are, not the aviator, not the officer."

Summary

Chapter four revealed both the results and analysis of the study. Through the transcendental phenomenological analysis procedures of individual interviews, protocol writing prompts, and focus group interviews, I identified the three themes of *workload, instability, and mental health* that influenced MQ-9 instructor pilots' career decision-making processes. Further, I identified nine subthemes of *additional duties take priority, struggle to balance work and life, compensation versus effort, location, schedule, leadership, tempered through exposure, limited access to mental healthcare, and no one understands*. Interestingly, most MQ-9 instructor pilots identified the USAF's biggest retention program, the aviation bonus, as completely unimportant in their decision-making process, instead remarking that they would take pay cuts for better family quality of life and fewer additional duties. Through the identification of these themes and subthemes, this chapter culminated with answers to the central research question and three sub-questions.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this transcendental phenomenology is to describe the shared experiences of MQ-9 instructor pilots who were considering discontinuing military service at the USAF's MQ-9 FTU. This chapter presents a discussion of the identified themes and interpretation of those findings. With these interpretations in mind, I recommend suggestions for modification to policy and practice within the USAF and at the MQ-9 FTU. Additionally, I discuss the theoretical and empirical implications identified from the research. Finally, this chapter concludes with acknowledgment of the limitations and delimitations within the study, as well as recommendations for future research.

Discussion

In this section, I utilize transcendental phenomenological research to identify findings and provide in-depth interpretations of those findings. From the thematic analysis, I have identified four key thematic findings that include additional duties decreased workplace satisfaction, compensation was deemed adequate but not enough to stay, mental health stigmas continued to prevent healthcare usage, and that desirable assignment locations could prevent unhappiness. With consideration to these thematic findings, this section also covers the implications for policy and practice that were identified through my research analysis. While applicable solutions are offered, this study further serves to confirm and advance both the theoretical framework and empirical literature discussed within Chapter Two. Thus, I additionally discuss the theoretical and empirical implications and how the results of my research relate to Vroom's (1964) expectancy theory and Herzberg et al.'s (1959) two-factor theory. Additionally, this section offers a discussion of the two limitations and three delimitations

contained within the research. Finally, I offer recommendations for future research directions related to the study of attrition within the MQ-9 career field.

Interpretation of Findings

This research examined the shared experiences of MQ-9 instructor pilots who are considering discontinuing their military service at the USAF's MQ-9 FTU. Upon completion of that data analysis, three themes that influenced career decision-making processes were identified, which included *workload*, *instability*, and *mental health*. Within the theme of *workload* were three subthemes that included *additional duties take priority, struggle to balance work and life, and compensation versus effort*. Within the theme of *instability* were three subthemes that included *location, schedule, and leadership*. Finally, within the theme of *mental health*, there were three subthemes that included *tempered through exposure, limited access to mental healthcare, no one understands*.

Summary of Thematic Findings

Many findings were discovered through thematic analysis, but four stood out as the most significant. These thematic findings were that additional duties decreased workplace satisfaction, compensation was deemed adequate but not enough to stay, mental health stigmas continue to prevent healthcare usage, and that desirable assignment locations could prevent unhappiness. Concerning the first thematic finding, every instructor pilot referenced the duties they are assigned in addition to instructional requirements as being influential on their career decision-making and as something they were looking forward to eliminating in their future civilian career. The second thematic finding presented itself in every participant's response. Although the participants repeatedly identified the USAF as extremely competitive in pay and time off compared to civilian careers, they all felt that they would be expected to complete significantly

less work or experience fewer hardships if they terminated their MQ-9 career, making the compensation irrelevant in career decision-making. For the third thematic finding, nearly all instructor pilots referenced the MQ-9 career field as an influence on their mental health, with many referencing the fact that they had to seek help outside of the military or avoid help at all in order to continue flying. Finally, for the fourth thematic finding, nine out of 10 instructor pilots referenced the fact that they were either assigned to a location they did not want when there were other options available that they were qualified for or the concern of returning to an undesirable location as a driving factor behind their career decision-making.

Additional Duties Decreased Workplace Satisfaction. Throughout the research, nearly every participant referenced the fact that their additional duties, rather than their instructional duties, felt like their primary duty. Instructor Pilot 6 noted that "as aviators, we kind of have more than one job. Flying just kind of feels like our secondary duty." The additional duties that each participant held secondarily to their role as an instructor pilot varied significantly, with some members holding technical jobs like security manager, while others held coordinating roles like student affairs officer or leadership roles like flight commander. This problem is not unique to the MQ-9 FTU, but instead, this annual additional duty change is expected and required if the member intends to progress their career at the normal pace. Regardless of the job, all of the participants faced the same issues: their additional duty changed every year and required new training, and their additional duty required additional time outside of the typical 6-8 hours of flying instruction that was expected daily. Nine of the 10 participants agreed that their additional duties were significantly influential on their happiness within the USAF, and many identified this unhappiness and additional workload as a contributing factor to their career termination.

Of the many comments about their unhappiness with the workload associated with their additional duties, a continual recurring subject was the fact that other employers do not expect this type of work without additional pay. Participants repeatedly referenced that their civilian counterparts, like DOD contracted MQ-9 instructor pilots or airline pilots, do not have these duties, which Instructor Pilot 5 made very clear by saying, “they just show up, brief, fly, debrief and leave.” This comparison to the seemingly lower requirements for their civilian counterparts and the continually growing workload made participants increasingly frustrated as their careers progressed, and more additional work was expected to keep up with their peers in promotability. Instructor Pilot 1 expressed his frustration through the statement, “I’m an MQ-9 pilot. I'm an instructor. Why am I doing this admin job at eight p.m. when I wasn't trained to be a security manager? I was trained to be an MQ-9 pilot.” When pressed about how this workload influenced his workplace satisfaction, he commented, “it seems like more and more we are administrators that have to be pilots as opposed to, you know, actual pilots.” Statements like these were common between participants, where many, like Instructor Pilot 10, who said, “I honestly feel like I'm just not doing what I want to do,” highlighting his dissatisfaction with his career.

Although this additional duty problem is known to be an issue throughout the USAF, it is important to note that other U.S. military branches have identified these issues and taken steps to correct them. One such example is the United States Army, Navy, Coast Guard, and Marines’ use of warrant officers; a military members’ rank whose responsibilities fall somewhere between that of an enlisted member and that of a commissioned officer. The United States Army (2021a) defines warrant officers as “technically and tactically focused and able to perform the primary duties of technical leader, advisor, and commander,” as opposed to their more leadership-focused commissioned officer. This warrant officer rank, which originated as flight officers in the Army

Air Forces during World War II as a way to create more combat aviators without giving enlisted members aircraft command, places emphasis on the technical duties these members have been assigned to rather than the bureaucratic work and leadership roles that commissioned officers garner (Callander, 1991). Due to difficulties managing how warrant officers fit into the existing enlisted member and commissioned officer hierarchy, the USAF discontinued the rank shortly after its conception (Callander, 1991). The United States Army specifically still offers this program today for those interested in being Army aviators alone, offering a direct route for members who desire to primarily serve as aviators rather than officers (United States Army, 2021b). This type of opportunity could be a pathway for those like Instructor Pilot 10, who "didn't really join to be a colonel" but instead "wanted to join and fly." While the USAF does not offer warrant officer positions, it has tried similar, short-lived projects in the past to attempt to address this issue.

Since at least 2017, the USAF has recognized that it has aviators who are simply dissatisfied with their career due to the additional duties expected of them. After surveying its members and receiving feedback that an aviation-only track would increase retention for a subset of members who want only wanted to fly, the Air Mobility Command section of the USAF put a program into place (Panzino, 2017). Unfortunately, this program lasted less than two years after it was tested on only two members after noting that there was no interest in the program (Losey, 2020). After identifying this as a desire within the aviation community as of 2017 and hearing MQ-9 Instructor Pilot 8 echo this with statements about how the USAF arbitrarily "slaps some office work on you so you can practice those nifty officer skills you learned at your commissioning source," it is hard to believe that there was no interest in the aviation-only track.

This thematic finding of *additional duties decreasing workplace satisfaction* aligns with Herzberg et al.'s (1959) two-factor theory that I used to build this research's theoretical framework. In line with his theory, additional duties can be categorized as a hygiene factor or a workplace scenario that employees seek to avoid (Herzberg, 1966, 2003). As these factors significantly influence workplace satisfaction, it could be possible that removing or reducing the negative hygiene factor of additional duties could increase workplace satisfaction and subsequently improve retention outcomes. As noted in Chapter Two, hygiene factors do not create job satisfaction, but the reduction of these factors can mitigate dissatisfaction. Similarly, motivation factors like pay or promotion increase job satisfaction, but only to a certain extent if negative hygiene factors are present (Herzberg et al., 1959). This concept aligns with the USGAO's (2020) data showing that the RPA pilot retention bonus did not outweigh the negative factors within the career field, as well as this research, where Instructor Pilot 1 referenced the fact that he would only consider renewing his contract and taking the bonus "if it was like a million dollars, like ridiculously life-changing money."

Compensation was Deemed Adequate but Not Enough to Stay. Although all but one participant referenced the fact that their current pay nor the retention bonus was not enough to make them consider renewing their contract with the USAF, every participant recognized that their compensation was adequate and often better than that of their civilian counterparts. In reference to military benefits, Instructor Pilot 7 commented, "not only do we get the holidays and weekends off, but you get 30 days a year. I'd say it's well above some civilian counterpart jobs," and Instructor Pilot 9 recognized that in the civilian sector he wouldn't be guaranteed "housing allowances, food allowances, and family leave and sick days and vacation days." Even the pay itself was considered as highly competitive, with Instructor Pilot 2 emphasizing that in his career

search, it had been difficult to “find a job that is going to pay me anything like $100,000” to match his current standard of living. With all of these accolades in mind, it is important to consider that regardless of how good the benefits were, all of the participants were still terminating their careers, with many accepting pay cuts to do so. Instructor Pilot 8 spelled this out with his comment, “It's not going to make me want to stay anymore. I don't think there's any amount of money that someone can put a dollar amount to that will keep you in,” highlighting the idea that even outstanding compensation could not outweigh his workplace dissatisfaction.

One of the key factors that participants identified as to why the compensation was not enough to make them consider continuing their career was the amount of work they had to bring home and its influence on their families’ quality of life. While Instructor Pilot 4 recognized that his time off greatly exceeded his civilian counterparts, he found that the time off had “significantly less quality,” and Instructor Pilot 9 highlighted that “the only value money has to me is time and stability,” neither of which he felt were being adequately provided. Many participants agreed that they had to sacrifice the time with their families or things that made them happy in order to deal with work-related issues, which made their compensation level feel lower as their work requirements were ever-growing. Instructor Pilot 7 commented that to terminate his MQ-9 career, he needed to transition away from “focusing on the compensation” and instead prioritize “joy in life and the reward that you get from work.”

In addition to their quality of life, all instructor pilots agreed that their compensation was not compensatory for their lack of freedom in their career’s future and their future basing locations. Location and the participants’ general unhappiness with nearly all of the MQ-9 basing options were repeatedly highlighted throughout the research. Instructor Pilot 5 craved more freedom of movement and “wanted to be able to actually decide where I go next and be able to

have control in that regard." In line with Vroom's (1964) expectancy theory, instructor pilots perceived that they would have no control over their future or freedom, and resultantly they were not motivated to continue putting in the effort required to continue within the career field. Over his long career, Instructor Pilot 7 felt that he had "been a puppet for 20, going to be 22 years, and I just want to say where I go," regardless of the impact on his compensation.

Mental Health Stigmas Continue to Prevent Healthcare Usage. Eight of the 10 participants agreed that their mental health had been affected negatively in some way by their careers. Although participants disagreed on the level that their mental health was affected by their MQ-9 career, it was apparent that even those who described their mental health as the same or better still carried concern for the stigma associated with poor mental health. Describing the mental and physical tolls the career field takes on its members, Instructor Pilot 9 conveyed:

> Shift work will age you faster than your peers, stress will load constant physical exhaustion on you, and it is easy to fall into the trap of just putting off your personal health while you deal with suddenly adapting to volatility and incredibly important work.

He also went further to describe his own involvement witnessing the atrocities of war from the other side of a camera in an experience where he "had less than 100 hours when I watched someone get decapitated for the first time – my sensor operator that day was 19 years old, and it was his third mission." These events are obviously traumatic regardless of the individual's mental preparedness, a common problem that has been identified in the MQ-9 career field (Chappelle et al., 2014; Hardison et al., 2017).

Although every participant had witnessed something similar to these traumatic images in their career, they were very careful to avoid labeling themselves with words

like “PTSD,” “trauma,” or “flashbacks,” regardless of the fact that many referenced that they carried these issues with them. Instructor Pilot 10 recalled one night after work, he still felt he could “hear the gunfire, the explosions, and the voices of people down there in the thick of it” and that he was “pissed off, angry at some people in town for just being happy” while others were suffering. Further, Instructor Pilot 9 highlighted his concern with labeling himself through the statement, “you got to be careful with the wording. I truly don't believe I have PTSD, but I mean, I think some things are just kind of burned into your memory,” showing that independent of the USAF’s attempts to reduce mental health stigmas, stigma and the fear associated with it is still prevalent.

Through my research, it has become blatantly apparent that the MQ-9 career field can cause mental health struggles and that the stigmas associated with it are still widespread. However, one unexpected fact that presented itself in this research was that access to mental healthcare was not convenient, even at a training unit where no live combat nor 24/7 operations occur. It was surprising that mental health and inability to access adequate help was such a popular topic in this research, as the USAF’s MQ-9 FTU is often advertised as a “break” from combat operations where MQ-9 pilots can take a bit of time to focus on becoming better educators on normal schedules rather than flying combat missions. Instructor Pilot 3 found that “the availability and quality of mental health resources to folks within the career field is significant for a lot of people and why they get out.” When referencing his own mental health struggles, he said that he “was not satisfied with the level of mental healthcare that the military provided. Or rather, maybe the stigma around it led me to not be satisfied.” Eventually, when he felt that his mental health concerns could not go unaddressed, he sought mental health help off-base through a local Wounded Warrior program that finally provided sufficient aide.

Unfortunately, this option is not one that is made widely apparent at the USAF's MQ-9 FTU, with mental health access being less available than at combat units due to the manning of mental health programs. Instructor Pilot 8 noted that compared to his prior combat unit, the FTU is "low on resources, they also don't have an MFLAC [Military and Family Life Counselor]. I think it's that they're not embedded in the FTU. So, I think that just not having that lowered my resiliency," as opposed to when he talked to a counselor weekly at the combat unit.

Desirable Assignment Locations Could Prevent Unhappiness. One final topic that came up at least 15 times throughout data collection was the participants' unhappiness with their past, current, and/or future base location options. In the MQ-9 career field, it is well known that most base locations are in the Midwest, typically in arid desert climates. While there are other options that have become recently available, they are highly desired and thus difficult to get. Additionally, the USAF's MQ-9 FTU is considered a required duty location, typically for an MQ-9 pilot's second assignment after their first combat tour, and its location is geographically separated from large cities with the amenities that most individuals desire. In reference to his displeasure with his current and previous bases, Instructor Pilot 5 quipped, "I didn't want Cannon, and I got it, and then I didn't want to come here [the FTU], and then I got it. That's probably close to seven, eight years of being where I don't want to be." This unhappiness with location did not only affect the individual participants but also their family relationships. Instructor Pilot 7 found that the time away from his family throughout his career was "kind of cumbersome, but over time, I've become accustomed to it and maybe even numb to a point where I can compartmentalize it and adjust accordingly." This type of extended unhappiness associated with their assignment location is unlikely to motivate individuals to extend their careers.

Of the many complaints about location, the lack of influence or feeling of inclusion in the process was repeatedly identified as a stressful and dissatisfying process. Instructor Pilot 5 quantified his displeasure with the process as, “I don't think the Air Force does a good job in potentially helping RPA people get assignments that they want.” Within the MQ-9 career field, it is common for instructors to move every 2-3 years, and members are encouraged to update a program called “Talent Marketplace,” which the USAF has described as a “world-class assignment platform that will allow for more deliberate talent management through assignment transparency and leadership involvement” (Whaley, 2021, p.1). The system allows members to rank their assignment choices, while leadership at duty locations can “bid” on individuals with qualifications or experience their unit could benefit from. Although it has been advertised as an incredibly powerful and helpful tool, participants found that it was neither and accused the tool of providing false hopes when it appears that an individual’s first choice of duty location desired them to be stationed there as well. Instructor Pilot 6 described how at his previous assignment, he and his fellow instructor pilots learned “the whole system is a joke. They were actually trying to hide showing us the bids because everyone was getting mad that the bids basically mean nothing.” Their perception of the system not actually working increased their unhappiness and further exasperated their frustration with the assignment process.

This disconnection from being involved with their future assignment process and subsequent unhappiness aligns with Vroom’s (1964) expectancy theory. Expectancy theory identified a relationship between an individual’s perception of what they will receive for their efforts and the future effort they will put into their work (Vroom, 1964). Thus, employees are categorized as rational beings that weigh effort versus reward and are resultantly motivated rather than working to fulfill internal drivers alone (Lunenburg, 2011). With this motivation

theory in mind, it is not surprising that the participants don't have the buy-in to continue their careers or feel motivated to stay by promises of more compensation. They don't feel as if the tools that they have provide any control or agency over their lives, nor are they effective or transparent. Were they instead brought into a process that showed results and made them feel as if they had some influence, they may feel more motivated to continue further in the MQ-9 career field.

Regardless of their feelings on the effectiveness of the tools provided in determining their future assignment location, many participants felt there was a problem with the assignment locations in general. As MQ-9 aircraft are operated remotely, many felt that their base locations need not be arbitrarily restricted to the extremely remote or rural areas that they are currently. Instructor Pilot 3 spelled out his feelings about it with the statement, "it just seems like we're the one career field where we can have bases literally anywhere, and all the bases choose to be terrible." Of the problems noted with the rural base options, participants most referenced poor water quality, lack of access to quality education, difficulty dating or making friends, and long commute distances as highly influential in their dissatisfaction. When referencing his main reason behind career termination, Instructor Pilot 1 lamented, "it kind of gets old and can be tough on your mental health, living in the middle of nowhere America." These responses made it apparent that with the unique nature of MQ-9 operations being able to be conducted from anywhere in the world, the USAF could better leverage its basing options to retain more instructor pilots.

Implications for Policy and Practice

This research may help policymakers within the military, leadership at the USAF's MQ-9 FTU, and instructor pilots better understand the factors that influence attrition and provide

potential solutions to improving retention in the future. From this research, it has become apparent that the themes of *workload, instability*, and *mental health* issues contribute to the attrition of instructor pilots at the USAF's MQ-9 FTU. The findings indicate that additional duties drive workplace dissatisfaction, current compensation does not outweigh expectations, mental health stigmas prevent adequate care, and undesirable assignment locations drive unhappiness. This section will present recommendations for changes in both policy and practice that could improve these issues and potentially reduce the significant attrition rate that MQ-9 instructor pilots currently exhibit. Implications for policy include offering instructors career paths that are primarily aviation-focused rather than leadership-focused, as well as expansion of basing options to include more desirable locations. Implications for practice include the development of a more consistent teaching schedule at the FTU, the hiring of additional civilian contractors to reduce the additional duties instructors must shoulder, and more robust mental healthcare outreach and opportunities.

Implications for Policy

This study provided an opportunity for the voices of MQ-9 instructor pilots, a unique niche of military educators and aviators, to be heard and offers reasoning behind why it is important for their voices to be heard. Allowing MQ-9 instructor pilots' career decision-making to be understood by policymakers like USAF headquarters provides a real opportunity for policy change within the career field to occur. While the USAF recognizes that it has an aviator retention problem, the issue is yet to be resolved (Thompson, 2018; USGAO, 2020). Through this research, one key policy change that should be considered in order to improve retention rates is the re-introduction of programs like the 2018 flying-only career track (Panzino, 2017). This program was created with the intention to cut down on the additional duties required of aviators

and allow them to focus on the career of flying they had originally joined to pursue, a key desire that participants expressed throughout this research, with Instructor Pilot 5 identifying that over time, “the career field gets just a little bit more admin heavy and you’re kind of doing jobs, roles, and responsibilities that I'd probably rather not be doing, something that I don't find too fulfilling intrinsically.” While this program was tested out and ultimately determined as undesired by aviators, I believe that it was not appropriately fielded and that USAF leadership needs to create opportunities for more aviators to experience it. In its application, the flying-only career track was only tested within the Air Mobility Command of the USAF while multiple different commands exist, it was only tested on two C-17 pilots, and for only two years (Losey, 2020). None of these parameters seem broad enough to determine that no aviators would take the option of reducing their workload in return for extending the commitment, especially in light of the number of times participants in the research suggested that it would influence their decision to terminate their career. Rather than utilizing such a narrow scope, the USAF should instead offer this program to multiple Air Force Commands, including Air Combat Command and Air Force Special Operations Command, where many of those who separate from their USAF aviation career fall under. Additionally, this program should be fielded for a longer duration, as service commitment contracts end every year, supplying a continual stream of potential participants who may choose to continue their careers if offered such an opportunity.

While additional duties were highly regarded as influential in participants’ career decision-making, base assignment locations were also frequently mentioned as a driving factor in career termination. In one example from the research, Instructor Pilot 2 had actually been stationed at his number one location for his first assignment but was concerned for future assignments, which he explained in the quote, “I've kind of seen the best that this career has to

offer right? I don't want to stay in long enough to see how bad it could possibly get." Although the USAF has recognized this issue and taken steps to correct it, like opening MQ-9 operations at Shaw AFB in 2018, they have not put enough action into effect for MQ-9 instructor pilots to feel as if they have a real chance to be stationed somewhere they will enjoy (Reaves, 2018). Over his seven years in the MQ-9 career field, Instructor Pilot 5 lamented that he'd "stayed in the same region my entire career. It's disappointing a little bit, you know? I wanted to be stationed overseas. I wanted to go to all of these cool locations that you see and you read about," as opposed to spending nearly a decade at the FTU. To prevent these feelings of disappointment and dissatisfaction that have led to instructor attrition, I suggest that the USAF needs to continue expansion to less rural, more desirable locations, or find ways to make the communities surrounding their existing bases more desirable. Improvements could include bolstering the programs and opportunities on the bases themselves or investing in the surrounding towns in a meaningful way to reduce the problems inherent to small, rural areas. These are considerably expensive asks of an alright tight defense budget, but if utilizing the MQ-9 and other RPAs is the future of aviation, it only makes sense to invest in the improvement of the quality of life of their operators.

Implications for Practice

There are numerous practices that the USAF's MQ-9 FTU could adopt to improve the quality of life of its instructors while potentially reducing their attrition rate. One finding that was repeatedly brought up was the instability of the instructors' schedules and how it negatively impacted their mental and physical health, resulting in their desire for career termination. Instructor Pilot 3 found that it was common for his instruction schedule to shift "six hours earlier from one day to the other," while Instructor Pilot 4 found it difficult to "set an appointment or

something within two weeks" while teaching at the FTU. At the USAF's MQ-9 FTU, the current scheduling process provides instructors with only a day's notice of the teaching schedule, with multiple different educational events being possible from day to day. When attempting to schedule his interview, one participant even commented that he was unsure of if he would be available on a specific day, as he would not know his instructional schedule until the day prior. As the current flying syllabus has five different subjects and over 30 possible instructional topics, receiving roughly 24 hours' notice can cause instructors to need to lesson plan or refresh their knowledge in the evening, after duty-hours if they have not instructed the event recently. Additionally, instructors are only allotted crew rest, a mandatory 12-hour break between flying events, for actual flights and not simulator training, causing there to be the potential for a very late night followed by a very early morning instructional event. These scheduling conflicts can make it difficult for an instructor to spend quality time with their family or do activities they enjoy.

These issues may apply to other instructional institutions outside of the military, as many educators also receive limited lesson planning periods during the day and must bring their work home after hours. In fact, in 2012, the National Center for Education Statistics found that the average teacher receives roughly 45 minutes per day of planning time, driving them to work 52 hours a week to accomplish their lesson planning when they are typically only paid for 40. As of 2020, this fact still held true as research identified that most teachers worked 50 hours a week or more (Worth & Van den Brande, 2020). In order to correct this scheduling instability, I suggest that the USAF's MQ-9 FTU must institute a scheduling process that allows for at least a week's notice of an instructor's expected schedule. While this would require more work from schedulers on the front end, it would drastically improve the predictability of instructor pilots' schedules,

allowing them to properly plan and prepare for more complex instructional events during duty hours in the days prior. Additionally, the schedule could be adapted to include a planning day for instructors, where a shorter instructional event or no event is scheduled, leaving instructors with time during the duty day to prepare for upcoming instructional events. This could not only improve participants' satisfaction but likely also increase the quality of their instruction.

An additional practice that the USAF's MQ-9 FTU should put into place is the hiring of additional military members or contract civilians that are dedicated solely to additional duty work. Rather than training an instructor pilot to manage their squadron's security program annually, hire a security manager long-term, reducing the additional duty requirement. This is just one example, but it applies to numerous sub-sections of each instructional squadron, as every instructor has a different additional duty that demands their time. Though this option is likely expensive, it would have multiple benefits, including reducing the expected time instructors must work each day, improving the continuity within duty areas as the manager would not change each year and likely result in improvements in the performance of these duty areas. It is possible that this practice could extend to operational squadrons and other educational institutions where workloads are high, and staffing is low. While it may be difficult to hire qualified educators, it could potentially be easier to hire individuals who have experience in project management or clerical duties who could easily manage the additional work that instructors are expected to maintain.

Finally, the USAF's MQ-9 FTU needs to bolster its mental health programs, increase outreach to instructors who are struggling, and offer opportunities for those who are undergoing mental health treatment to still instruct while they receive help. As identified in the research, mental health programs at the FTU are lacking, members are concerned about the repercussions

if they seek help, and members simply do not know what options are available to them. With the FTU being an assignment that typically occurs after a combat assignment, it is not surprising that mental health is a concern that many members face. Due to the nature of combat missions, RPA crews tend to display more common occurrences of mental health problems that may not reveal themselves until time has passed (Armour & Ross, 2017; Gal et al., 2016; Reardon et al., 2016). Further, it is a well-known problem that military members tend to avoid seeking mental health help due to organizational barriers and stigma (Acosta et al., 2014; Mohatt et al., 2017).

In reference to the stigma that exists within the military, Instructor Pilot 9 said that "yes, there is still stigma about mental health. They'll say it's okay, but you know anything that threatens your career makes you want to be careful." In reference to his own mental healthcare experience, he further stated that he "didn't even bother with professional help because I think what we were going through was outside the scope of anybody really understanding it." In order to prevent these occurrences, the FTU first needs to increase the manning of all of its mental health programs, both military and civilian. Secondly, it needs to follow the lead of operational units and embed mental healthcare providers into the squadrons themselves, both increasing accessibility and visibility, which could help reduce the stigma associated with seeking help. Finally, one significant practice that the FTU could employ would be increasing instructional opportunities for those who are unable to fly due to mental health treatment. Some forms of mental health problems can ground members from flying duties, but not from simulator events or academic instruction. Advertising this availability could increase the likelihood that members seek help as they could feel less like their careers will be jeopardized.

Theoretical and Empirical Implications

Although the literature surrounding military and educator retention is vast, there is no research that has examined the motivational factors or shared experiences of MQ-9 instructor pilots, a niche educator that is both a military member and a teacher, and their career decision-making. This research served to fill a gap in the theoretical and empirical literature of the motivational factors that influence MQ-9 instructor pilots to terminate their careers at the high rate that currently exists. The study's participants identified both positive and negative influences on their career decision-making regarding their shared experiences at the FTU as well as at previous operational units. The theoretical implications include corroboration of Vroom's (1964) expectancy theory and Herzberg et al.'s (1959) two-factor theory applicability to military and educator research and specifically MQ-9 instructor pilots. The empirical implications include the therapeutic nature of protocol writing in this research and how instruction itself was not an influential factor in MQ-9 instructor pilots' decisions to terminate their careers.

Theoretical Implications

Much of this study's theoretical framework was grounded in Vroom's (1964) expectancy theory's teachings. This motivational theory suggests that individuals are intrinsically motivated by different desires than one another and that there is a relationship between the perception of reward and resultant effort in the workplace (Vroom, 1964). More specifically, this theory highlights the importance of an employer's understanding that each employee will be motivated by different rewards and that they will weigh the possible reward with how much effort they are willing to exert (Lunenburg, 2011). This research served to corroborate this concept, as participants placed varied weight on which workplace motivational factors they found influential on their career decision-making. Some instructors valued verbal praise and physical awards for

their effort, while others found them to be completely impractical and preferred to be rewarded with time off or new opportunities in the workplace.

An interesting finding from this research in relation to expectancy, or an individual's belief that their efforts will improve workplace performance, was that some participants did not believe that their efforts could improve their career at all. Instead, Instructor Pilot 10 suggested that leadership often played favorites and would "pick people they want and give them extra work to make them look better so they can get promoted," rather than offering these opportunities to those who put in the effort. Instructor Pilot 5 agreed, suggesting that effort or skill had little to do with rewards in the workplace, but instead that "yes-men tend to get the rank and get the promotion." With this in mind, it is not surprising to see that the participants struggled to maintain workplace motivation when instrumentality, or the understanding of their effort resulting in positive outcomes, was doubted (Vroom, 1964).

As a complementary theory to Vroom's (1964) expectancy theory, this research's theoretical framework was also built upon Herzberg et al.'s (1959) two-factor theory. Similar to expectancy theory, two-factor theory is a motivational theory that examines an employee's workplace motivation and resultant satisfaction. However, this theory suggested that an employee's satisfaction was influenced by not only motivational factors like recognition and promotion but also by hygiene factors like work conditions and company policies (Herzberg, 1966, 2003). The motivational factors serve to increase satisfaction when present, while hygiene factors could decrease satisfaction when they are poor (Herzberg et al., 1959). This research exemplified the applicability of this theory through participants' feelings toward the USAF's retention bonus. Instructor Pilot 6 defined the cash bonus as "not enough for me to stay in," and Instructor Pilot 2 asserted that "a bonus means absolutely nothing to me," in comparison to the

expectations of increased workload and returning to an undesirable location. Such statements make it clear that within the MQ-9 instructor pilot community, the motivational factor of a retention bonus does not outweigh the dissatisfaction that occurs when hygiene factors like poor work conditions, long hours, inaccessible mental healthcare, and frequent leadership changes are common.

Empirical Implications

This research provided many interesting findings, but one finding that stood out to me was the value that participants placed on their inclusion in this research. One trend that presented itself throughout the focus groups and individual interviews was the idea that participants didn't "think the Air Force quite listens to us well," nor did all leadership take their suggestions into account. However, many participants thanked me for undertaking this research, as it could help future instructor pilots not feel as frustrated or experience the scenarios they had. Specifically, some participants defined the protocol writing prompt as "a therapeutic process," with Instructor Pilot 9 defining it as his "manifesto." With these participants having been exposed to such difficult, potentially traumatic material over the course of their careers, opportunities to feel heard are incredibly important and hopefully will be expanded as a result of this research.

Finally, one important finding of this research is the fact that the participants truly loved their time spent educating students and that their decision to terminate their career was not influenced by their time or experiences instructing. Instead, their decisions were more heavily influenced by external factors like undesirable locations, additional duty expectations, and mental healthcare accessibility. When discussing his transition out of his active duty USAF commitment to a Reserve MQ-9 instructor pilot career, Instructor Pilot 9 said, "I'm trying to preserve my ability to do the job I love doing," as his duties will be much more instruction

focused with fewer additional duties. Instructor Pilot 7 reflected on his career and found achieving his instructor certification was the most impactful experience he had, as he enjoyed learning that "people have different ways of learning" and "understanding what they need and how to present that to them" as an educator. This love for instructing bodes well for the USAF's MQ-9 FTU as if it is able to address the external problems within the career field, it does not have significant issues with employees disliking their primary duty as educators.

Limitations and Delimitations

The purpose of utilizing transcendental phenomenology in my research was to develop a deep understanding of the shared experiences of MQ-9 instructor pilots who were considering discontinuing military service at the USAF's MQ-9 FTU (Creswell & Poth, 2018). In order for the research to adequately contribute knowledge to the literature surrounding Vroom's (1964) expectancy theory and Herzberg et al.'s (1959) two-factor theory, my research focused specifically on active duty MQ-9 instructor pilots at the USAF's MQ-9 FTU. Resultantly, there are two limitations and three delimitations that were presented throughout the research process.

Limitations

The two limitations in this study are that participant selection yielded only male participants and that participant selection yielded only two participants of color. First, the lack of female participation in this research prevented potential valuable information from being collected. It is possible that male and female MQ-9 instructor pilots may have significant differences in how they prioritize their career decision-making. While their lack of inclusion is unfortunate and may leave gaps in the research, it is not unexpected, as female USAF aviators comprise only 6.5% of the demographic (Hudson, 2020). Additionally, this research included only two participants of color, which reduced the potential for valuable information to be

compiled. Similar to the demographic issues seen with the lack of female participants, people of color make up only 12% of the USAF active duty pilot population (Cohen, 2021). While the two participants of color did represent 20% of the individuals interviewed in this research, it is likely that their experiences could differ from that of their White counterparts, presenting a limitation on the data collected.

Delimitations

The three delimitations in this study include the research site being delimited to the USAF's MQ-9 FTU, participant selection being delimited to active duty personnel only, and recruitment being delimited to 10 participants. First, delimiting the research site to only the USAF's MQ-9 FTU reduced the number of possible participants and prevented a larger-scale understanding of instructor pilots' shared experiences across multiple bases. However, this delimitation was necessary as instructors at other bases do not serve as instructors primarily but instead as mission pilots, with additional instructional duties. As mission pilots, these individuals experience many additional work conditions like shift work, 12-hour shifts, and complex mission sets that could have significantly influenced their career decision-making as opposed to that of primary instructors. Secondly, delimiting the participant selection to active duty personnel only prevented the voices of all instructor pilots at the USAF's MQ-9 FTU from being heard. The service commitments, schedules, and basing options of USAF Reserve and Air National Guard members are different than that of their active duty counterparts, which I determined to be influential enough to exclude them as participants in the research. Finally, delimiting the number of participants to 10 reduced the possible number of experiences that could be compared within this study. Research indicates that data saturation is met with 10-12 participants for phenomenological research (Creswell & Poth, 2018; Fusch & Ness, 2015).

Recommendations for Future Research

There are multiple recommendations for future research regarding MQ-9 instructor pilots shared experiences and resultant career decision-making. One of the most influential factors in the research that should be expanded upon is the site that I utilized. The USAF's MQ-9 FTU provided the best access to MQ-9 instructor pilots whose primary duty is the instruction of students, but every base that flies an MQ-9 mission has its own instructor pilots. While their primary duty is not necessarily instruction, but instead a combination of flying the mission, instruction, and their assigned additional duty, expanding this study to other bases could provide vastly different results. The location of the USAF's MQ-9 FTU is not considered highly desirable due to the climate and surrounding cities, which could be a significant influence on the current study's participants' career decision-making.

Another avenue that could be considered in future research would be to include the family members of MQ-9 instructor pilots in data collection. As many participants noted the effects of their career on their families and their resultant career decision-making, collecting data from spouses and children could provide a different perspective. While many options are possible, future researchers could include a family interview or questionnaire that focuses on the impact of their service member's career on the family's quality of life. Family members may be more willing to discuss the negatives of the military in comparison to the participants, as they are not under contract with the USAF.

Finally, one area of research that I did not consider that could be significantly important to devote research to is the other crew member of the MQ-9 crew. Enlisted sensor operators, similar to co-pilots, crew the MQ-9 alongside pilots and operate the cameras used to identify enemy targets. Similar to MQ-9 instructor pilots, these crew members also serve as instructors at

the USAF's MQ-9 FTU, are under-manned, and have high attrition rates. These aviators face many of the same problems as their pilot counterparts but also face unique challenges as enlisted members with lower pay and limited or non-existent retention bonuses. Examining their career decision-making experiences could yield valuable data that could further improve the career field.

Conclusion

This transcendental phenomenological research sought to describe the shared experiences of MQ-9 instructor pilots who are considering discontinuing their military service at the USAF's MQ-9 FTU. In order to build a deep understanding of this topic, the research utilized the central research question: What is the shared experience of USAF MQ-9 instructor pilots who are considering discontinuing their military career? To help answer the central research question, the three sub-questions included the following questions: (1) What is the decision-making experience of USAF MQ-9 instructor pilots who are considering discontinuing their military career? (2) How do USAF MQ-9 instructor pilots describe the impact of their career on their family's quality of life? (3) How do USAF MQ-9 instructor pilots describe the challenges of creating work/life balance in their career? To guide this research, Vroom's (1964) expectancy theory and Herzberg et al.'s (1959) two-factory theory were used to examine participants' motivation, workplace satisfaction, and their resultant attrition rates. Data from 10 participants were collected via individual interviews, focus group interviews, and protocol writing prompts for data analysis following Moustakas' (1994) phenomenological analysis design of reduction, horizonalization, imaginative variation, and finally, synthesis of the phenomenon's essence. This data analysis revealed three themes that consisted of *workload, instability,* and *mental health*. Further subthemes included *additional duties take priority, struggle to balance work and life,*

compensation versus effort, location, schedule, leadership, tempered through exposure, limited access to mental healthcare, and no one understands. From these themes and subthemes, it became apparent that MQ-9 instructor pilots at the USAF's MQ-9 FTU felt that additional duties decreased workplace satisfaction, compensation was deemed adequate but not enough to stay, mental health stigmas continued to prevent healthcare usage, and that desirable assignment locations could prevent unhappiness. Although these problems were experienced by nearly every participant, it was of note that the participants truly enjoyed their primary instructional duties as educators but were dissatisfied with the external factors of their military careers.

References

Abakpa, B., Agbo-Egwu, A. O., & Abah, J. (2017). Emphasizing phenomenology as a research paradigm for interpreting growth and development in mathematics education. *ABACUS, 42*(1), 391-405. https://doi.org/10.17613/M61R69

Abbott, C. J., & McKnight, K. (2010). Developing instructional leadership through collaborative learning. *AASA Journal of Scholarship and Practice, 7*(2), 20-26.

Abraham, T., Cheney, A. M., & Curran, G. M. (2017). A Bourdieusian analysis of US military culture ground in the mental help-seeking literature. *American Journal of Men's Health*, *11*(5), 1358-1365. https://doi.org/10.1177/1557988315596037

AbuAlRub, R. F., & Nasrallah, M. A. (2017). Leadership behaviours, organizational culture and intention to stay amongst Jordanian nurses. *International Nursing Review, 64*(4), 520-527. https://doi.org/10.1111/inr.12368

Aburumman, O., Salleh, A., Omar, K., & Abadi, M. (2020). The impact of human resource management practices and career satisfaction on employee's turnover intention. *Management Science Letters, 10*(3), 641-652. http://dx.doi.org/10.5267/j.msl.2019.9.015

Acikgoz, Y., & Sumer, H. C. (2018). Predicting applicant withdrawal: An expectancy theory perspective. *Military Psychology, 30*(2), 152-161. https://doi.org/10.1080/08995605.2018.1425066

Acosta, J. D., Becker, A., Cerully, J. L., Fisher, M. P., Martin, L. T., Vardavas, R., Slaughter, M. E., & Schell, T. L. (2014). *Mental health stigma in the military*. RAND Corporation. https://apps.dtic.mil/sti/citations/ADA610275

Agar, M. H. (1980). *The professional stranger: An informal introduction to ethnography*. Academic Press.

Aggarwal, S., & Kumar, N. (2020). Path planning techniques for unmanned aerial vehicles: A review, solutions, and challenges. *Computer Communications, 149*, 270-299. https://doi.org/10.1016/j.comcom.2019.10.014

Aguenza, B. B., & Som, A. P. M. (2018). Motivational factors of employee retention and engagement in organizations. *International Journal of Advances in Agriculture Sciences, 1*(6), 88–95.

Ahmad, S., Fazal-E-Hasan, S. M., & Kaleem, A. (2018). How ethical leadership stimulates academics' retention in universities. *International Journal of Educational Management, 32*(7), 1348-1362. https://doi.org/10.1108/IJEM-11-2017-0324

Aime, F., Humphrey, S., DeRue, D., & Paul, J. (2014). The riddle of heterarchy: Power transitions in cross-functional teams. *Academy of Management Journal, 57*(2), 327-352. https://doi.org/10.5465/amj.2011.0756

Air Force Instruction. (2020). *AFMAN11-2MQ9V1-Aircrew training.* Department of the Air Force.

Alarcon, G. M. (2011). A meta-analysis of burnout with job demands, resources, and attitudes. *Journal of Vocational Behavior, 79*(2), 549-562. https://doi.org/10.1016/j.jvb.2011.03.007

Alegría, M., Green, J. G., McLaughlin, K. A., & Loder, S. (2015). *Disparities in child and adolescent mental health and mental health services in the US.* William T. Grant Foundation.

Alrawahi, S., Sellgren, S. F., Altouby, S., Alwahaibi, N., & Brommels, M. (2020). The application of Herzberg's two-factor theory of motivation to job satisfaction in clinical

laboratories in Omani hospitals. *Heliyon*, *6*(9), 1-9. https://doi.org/10.1016/j.heliyon.2020.e04829

Alshmemri, M., Shahwan-Akl, L., & Maude, P. (2017). Herzberg's two-factor theory. *Life Science Journal, 14*(5), 12-16. http://www.dx.doi.org/10.7537/marslsj140517.03

Amankwaa, L. (2016). Creating protocols for trustworthiness in qualitative research. *Journal of cultural diversity, 23*(3), 121-127.

Anderson, M. (2017). Transformational leadership in education: A review of existing literature. *International Social Science Review, 93*(1), 4.

Anitha, J. (2016). Role of organisational culture and employee commitment in employee retention. *ASBM Journal of Management, 9*(1), 17-28.

Aragon, S. (2016). *Teacher shortages: What we know*. Education Commission of the States.

Arar, K., Haj, I., Abramovitz, R., & Oplatka, I. (2016). Ethical leadership in education and its relation to ethical decision-making: The case of Arab school leaders in Israel. *Journal of Educational Administration, 54*(6), 647-660. https://doi.org/10.1108/JEA-11-2015-0101

Arenas, F. J., Tucker, J., & Connelly, D. A. (2017). Transforming future air force leaders of tomorrow: A path to authentic transformational leadership. *Air & Space Power Journal, 31*(3), 18-33.

Armijo, F. A. (2017). Effects of transformational leadership in the attrition of U.S. Service members. [Doctoral dissertation, Northcentral University]. ProQuest Dissertations & Theses.

Armour, C., & Ross, J. (2017). The health and well-being of military drone operators and intelligence analysts: A systematic review. *Military Psychology, 29*(2), 83-98. https://doi.org/10.1037/mil0000149

Asaro, P. M. (2013). The labor of surveillance and bureaucratized killing: New subjectivities of military drone operators. *Social Semiotics, 23*(2), 196-224. https://doi.org/10.1080/10350330.2013.777591

Asch, B. J. (2019). *Setting military compensation to support recruitment, retention, and performance*. RAND Corporation. https://doi.org/10.7249/RR3197

Ataliç, H., Can, A., & Cantürk, N. (2016). Herzberg's motivation-hygiene theory applied to high school teachers in Turkey. *European Journal of Multidisciplinary Studies, 1*(4), 90-97. https://doi.org/10.26417/ejms.v1i4.p90-97

Avolio, B. J., & Bass, B. M. (2002). *Developing potential across a full range of leadership: Cases on transactional and transformational leadership*. Lawrence Erlbaum Associates https://doi.org/10.4324/9781410603975

Baer, M. (2019). *The experiences of spouses/partners of military RPA pilots and sensor operators: A generic qualitative study.* [Doctoral dissertation, Capella University]. ProQuest Dissertations Publishing.

Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2017). Entrepreneurial motivation and self-employment: Evidence from expectancy theory. *International Entrepreneurship and Management Journal, 13*(4), 1097-1115. https://doi.org/10.1007/s11365-017-0441-z

Bass, B. M. (1985). *Leadership and performance beyond expectations*. Free Press.

Bass, E. (2019). The Post-9/11 GI Bill: Beneficiaries, choices, and cost. *Congressional Budget Office*. https://www.cbo.gov/publication/55409

Baumann, M. R., & Bonner, B. L. (2017). An expectancy theory approach to group coordination: Expertise, task features, and member behavior. *Journal of Behavioral Decision Making, 30*(2), 407-419. https://doi.org/10.1002/bdm.1954

Bazeley, P. (2013). *Qualitative data analysis: Practical strategies*. SAGE Publications.

Bell, M. E., Dardis, C. M., Vento, S. A., & Street, A. E. (2018). Victims of sexual harassment and sexual assault in the military: Understanding risks and promoting recovery. *Military Psychology*, *30*(3), 219-228. https://doi.org/10.1037/mil0000144

Benevene, P., Dal Corso, L., De Carlo, A., Falco, A., Carluccio, F., & Vecina, M. L. (2018). Ethical leadership as antecedent of job satisfaction, affective organizational commitment and intention to stay among volunteers of non-profit organizations. *Frontiers in Psychology, 9*, 1-17. https://doi.org/10.3389/fpsyg.2018.02069

Bennett, J. (2018). Combating sexual assault with the military ethic: exploring culture, military institutions, and norms-based preventive policy. *Armed Forces & Society, 44*(4), 707-730. https://doi.org/10.1177/0095327X17735520

Bibi, P., Pangil, F., Johari, J., & Ahmad, A. (2017). The impact of compensation and promotional opportunities on employee retention in academic institutions: The moderating role of work environment. *Journal of Economic & Management Perspectives, 11*(1), 378-391.

Bin Osman, Z., & Uli, J. (2014). The affective commitment as a mediator in relationship between military commanders transformational and transactional leadership with subordinates job satisfaction in Malaysian Royal Signals Corp. *International Journal of Science: Basic and Applied Research, 15*(1), 249-266.

Blais, R. K., Tirone, V., Orlowska, D., Lofgreen, A., Klassen, B., Held, P., Stevens, N., & Zalta, A. K. (2021). Self-reported PTSD symptoms and social support in US military service members and veterans: a meta-analysis. *European Journal of Psychotraumatology, 12*(1), 1-17. https://doi.org/10.1080/20008198.2020.1851078

Boies, K., & Howell, J. M. (2009). Leading military teams to think and feel: Exploring the relations between leadership, soldiers' cognitive and affective processes, and team effectiveness. *Military Psychology, 21*(2), 216-232. https://doi.org/10.1080/08995600902768743

Book, L., Gatling, A., & Kim, J. (2019). The effects of leadership satisfaction on employee engagement, loyalty, and retention in the hospitality industry. *Journal of Human Resources in Hospitality & Tourism, 18*(3), 368-393. https://doi.org/10.1080/15332845.2019.1599787

Booth-Kewley, S., Dell'Acqua, R. G., & Thomsen, C. J. (2017). Factors affecting organizational commitment in Navy corpsmen. *Military Medicine, 182*, 1794-1800. https://doi.org/10.7205/MILMED-D-16-00316

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal, 9*(2), 27-40. http://dx.doi.org/10.3316/QRJ0902027

Boyce, J., & Bowers, A. J. (2018). Toward an evolving conceptualization of instructional leadership as leadership for learning. *Journal of Educational Administration*, *56*(2),161-182. https://doi.org/10.1108/JEA-06-2016-0064

Boyd, D., Grossman, P., Ing, M., Lankford, H., Loeb, S., & Wyckoff, J. (2011). The influence of school administrators on teacher retention decisions. *American Educational Research Journal, 48*(2), 303-333. https://doi.org/10.3102/0002831210380788

Boyd, H. A. Jr., & Boyles, W. R. (1968). *Statements of career intentions: Their relationship to military retention problems*. George Washington University.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Bressett, S. J. (2018). *Bleeding talent: A qualitative study of pilot retention in the B-2 community.* [Doctoral dissertation, Creighton University]. ProQuest Dissertations & Theses.

Bridges, E. M. (1982). Research on the school administrator: The state of the art, 1967-1981. *Educational Administration Quarterly, 18*(3), 12-33. https://doi.org/10.1177/0013161X82018003003

Britton, J., & Propper, C. (2016). Teacher pay and school productivity: Exploiting wage regulation. *Journal of Public Economics*, *133*, 75-89. https://doi.org/10.1016/j.jpubeco.2015.12.004

Brooks, S. K., & Greenberg, N. (2018). Non-deployment factors affecting psychological wellbeing in military personnel: literature review. *Journal of Mental Health, 27*(1), 80-90. https://doi.org/10.1080/09638237.2016.1276536

Brown, M. E., & Treviño, L. K. (2006). Ethical leadership: A review and future directions. *The Leadership Quarterly, 17*(6), 595-616. https://doi.org/10.1016/j.leaqua.2006.10.004

Bucic, T., Robinson, L., & Ramburuth, P. (2010). Effects of leadership style on team learning. *Journal of Workplace Learning, 22*(4), 228-248. https://doi.org/10.1108/13665621011040680

Burns, J. M. (1978). *Leadership.* Harper & Row.

Bush, T. (2003). *Theories of educational leadership and management*. SAGE Publications. https://doi.org/10.1177/0263211X0303102100

Bush, T. (2017). The enduring power of transformational leadership. *Educational Management Administration & Leadership, 45*(4), 563–565. https://doi.org/10.1177/1741143217701827

Bush, T., & Glover, D. (2003). *School leadership: Concepts and evidence*. National College for School Leadership.

Bush, T., & Sargsyan, G. (2013). Educational leadership and management: Theory, policy, and practice. *Main Issues of Pedagogy and Psychology, 3*(3), 31-43. https://doi.org/10.24234/miopap.v3i3.255

Bynum, W., & Varpio, L. (2018). When I say… hermeneutic phenomenology. *Medical Education, 52*(3), 252-253. https://doi.org/10.1111/medu.13414

Callander, B. D. (1991). *The in-betweeners.* Air Force Magazine. https://www.airforcemag.com/article/1191between/

Candela, L., Gutierrez, A. P., & Keating, S. (2015). What predicts nurse faculty members' intent to stay in the academic organization? A structural equation model of a national survey of nursing faculty. *Nurse Education Today, 35*(4), 580-589. https://doi.org/10.1016/j.nedt.2014.12.018

Carlisle, H. J. (2016, March 16th). *Presentation to the Senate Armed Services Committee subcommittee on airland*. http://www.armed-services.senate.gov/imo/media/doc/Carlisle_03-16-16.pdf

Castillo, F. A., & Hallinger, P. (2018). Systematic review of research on educational leadership and management in Latin America, 1991–2017. *Educational Management Administration & Leadership, 46*(2), 207-225. https://doi.org/10.1177/1741143217745882

Chandler, K. F. (2016). A drone manifesto: Re-forming the partial politics of targeted killing. *Catalyst: Feminism, Theory, Technoscience, 2*(1), 1-23. https://doi.org/10.28968/cftt.v2i1.28832

Chappelle, W., McDonald, K., Prince, L., Goodman, T., Ray-Sannerud, B. N., & Thompson, W. (2014). Assessment of occupational burnout in United States Air Force predator/reaper "drone" operators. *Military Psychology, 26*(5-6), 376-385. https://doi.org/10.1037/mil0000046

Cherkowski, S., Walker, K. D., & Kutsyuruba, B. (2015). Principals' moral agency and ethical decision-making: Toward a transformational ethics. *International Journal of Education Policy and Leadership, 10*(5), 1-17. https://doi.org/10.22230/ijepl.2015v10n5a572

Chiat, L. C., & Panatik, S. A. (2019). Perceptions of employee turnover intention by Herzberg's motivation-hygiene theory: A systematic literature review. *Journal of Research in Psychology, 1*(2), 10-15. https://doi.org/10.31580/jrp.v1i2.949

Chiu, C. Y., Owens, B. P., & Tesluk, P. E. (2016). Initiating and utilizing shared leadership in teams: The role of leader humility, team proactive personality, and team performance capability. *Journal of Applied Psychology, 101*(12), 1705-1720. https://doi.org/10.1037/apl0000159

Coeckelbergh, M. (2013). Drones, information technology, and distance: Mapping the moral epistemology of remote fighting. *Ethics and Information Technology, 15*(2), 87-98. https://doi.org/10.1007/s10676-013-9313-6

Cohen, R. S. (2021, May 19). *Here's the Air Force's plan to diversify its pilot corps*. Air Force Times. https://www.airforcetimes.com/news/your-air-force/2021/03/19/heres-the-air-forces-plan-to-diversify-its-pilot-corps/

Colomer, J., Pallisera, M., Fullana, J., Burriel, M. P., & Fernández, R. (2013). Reflective learning in higher education: A comparative analysis. *Procedia-Social and Behavioral Sciences, 93*(1), 364–370. https://doi.org/10.1016/j.sbspro.2013.09.204

Corbo, J. C., Reinholz, D. L., Dancy, M. H., Deetz, S., & Finkelstein, N. (2016). Framework for transforming departmental culture to support educational innovation. *Physical Review Physics Education Research, 12*(1), 1-15. https://doi.org/10.1103/PhysRevPhysEducRes.12.010113

Corden, C. D., & Hansen, H. J. (1957). *Systems analysis approach to Firebee flight control systems development* (No. 570152). SAE Technical Paper. https://doi.org/10.4271/570152

Corlett, S., & Mavin, S. (2018). Reflexivity and researcher positionality. *The SAGE Handbook of Qualitative Business and Management Research Methods*, 377-399. https://doi.org/10.4135/9781526430212.n23

Cornaglia, F., Crivellaro, E., & McNally, S. (2015). Mental health and education decisions. *Labour Economics, 33*, 1-12. https://doi.org/10.1016/j.labeco.2015.01.005

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches (4th ed.)*. SAGE Publications.

Dai, S., Li, Y., & Zhang, W. (2019). Personality traits of entrepreneurial top management team members and new venture performance. *Social Behavior and Personality, 47*(7), 1-15. https://doi.org/10.2224/sbp.8107

Daniel, A. (2015, October 17th). Williams: Texas Must Expand Teacher Pool. The Texas Tribune. https://www.texastribune.org/2015/10/17/michael-williams-reflects-his-time-texas-education/

Denzin, N. K., & Lincoln, Y. S. (2018). *The Sage handbook of qualitative research* (5th ed.). SAGE Publications.

Department of Defense. (2006). *Quadrennial defense review report.* https://archive.defense.gov/pubs/pdfs/QDR20060203.pdf

Department of Defense. (2012). *Department of Defense report to Congress on future unmanned aircraft systems training, operations, and sustainability.* https://fas.org/irp/program/collect/uas-future.pdf

De Simone, S. (2015). Expectancy value theory: Motivating health care workers. *American International Journal of Contemporary Research, 5*(2), 19-23.

De Stercke, J., Goyette, N., & Robertson, J. E. (2015). Happiness in the classroom: Strategies for teacher retention and development. *Prospects, 45*(4), 421-427. https://doi.org/10.1007/s11125-015-9372-z

Dion, M. J. (2006). *The impact of workplace incivility and occupational stress on the job satisfaction and turnover intention of acute care nurses*. [Doctoral dissertation, University of Connecticut]. ProQuest Dissertations Publishing.

Dobbs, J. M., & Do, J. J. (2019). The impact of perceived toxic leadership on cynicism in officer candidates. *Armed Forces & Society, 45*(1), 3-26. https://doi.org/10.1177/0095327X17747204

Dolton, P., & Marcenaro-Gutierrez, O. D. (2011). If you pay peanuts do you get monkeys? A cross-country analysis of teacher pay and pupil performance. *Economic policy*, *26*(65), 5-55. https://doi.org/10.1111/j.1468-0327.2010.00257.x

Doney, P. A. (2013). Fostering resilience: A necessary skill for teacher retention. *Journal of Science Teacher Education, 24*(4), 645-664. https://doi.org/10.1007/s10972-012-9324-x

Drozd, N. (2020). The therapeutic approach to military culture: A music therapist's perspective. *Journal of Medical Humanities*, 1-9. https://doi.org/10.1007/s10912-020-09629-3

Eby, L., Casper, W., Lockwood, A., Bordeaux, C., & Brinley, A. (2005). Work and family research in IO/OB: Content analysis and review of the literature (1980–2002). *Journal of Vocational Behavior*, 66(1) 124-197. https://doi.org/10.1016/j.jvb.2003.11.003

Education Support Partnership. (2018). *Teacher Wellbeing Index 2018*. Education Support. https://www.educationsupportpartnership.org.uk/resources/research-reports/teacher-wellbeingindex-2018

Englander, M. (2012). The interview: Data collection in descriptive phenomenological human scientific research. *Journal of Phenomenological Psychology, 43*(1), 13-35. https://doi.org/10.1163/156916212X632943

Fahey, K. M., & Miller, M. J. (2017). *Unmanned systems integrated roadmap 2017-2042*. Department of Defense. https://www.defensedaily.com/wp-content/uploads/post_attachment/206477.pdf

Falk, J., & Karamcheva, N. (2018). *Comparing the effects of current pay and defined benefit pensions on employee retention*. Congressional Budget Office. https://www.cbo.gov/publication/54056

Farrell, B. S. (2014). *Air Force: Actions needed to strengthen management of unmanned aerial system pilots*. Government Accountability Office. https://www.gao.gov/products/GAO-14-316

Ferrell, E. L., Braden, A., & Redondo, R. (2021). Impact of military culture and experiences on eating and weight-related behavior. *Journal of Community Psychology, 49,* 1923-1942. https://doi.org/10.1002/jcop.22534

Firestone, W. A., & Riehl, C. (Eds.). (2005). *A new agenda for research in educational leadership.* Teachers College Press.

Fleming, M. H., Brannen, S., Mosher, A., Altmire, B., Metrick, A., Boyle, M., & Say, R. (2015). *Unmanned systems in homeland security*. US Department of Homeland Security. https://www.csis.org/files/attachments/151216_Unmanned_Systems.pdf

Francis, J. J., Johnston, M., Robertson, C., Glidewell, L., Entwistle, V., Eccles, M. P., & Grimshaw, J. M. (2010). What is an adequate sample size? Operationalising data saturation for theory-based interview studies. *Psychology and Health, 25*(10), 1229-1245. https://doi.org/10.1080/08870440903194015

Fridriksson, J. F., Tómasson, K., Midtsundstad, T., Mehlum, I. S., Hilsen, A. I., Nilsson, K., & Albin, M. (2017). *Working environment and work retention*. Nordic Council of Ministers. https://doi.org/10.6027/TN2017-559

Frone, M. R., & Blais, A. R. (2019). Work fatigue in a non-deployed military setting: assessment, prevalence, predictors, and outcomes. *International Journal of Environmental Research and Public Health*, *16*(16), 1-26. https://doi.org/10.3390/ijerph16162892

Fusch, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *The Qualitative Report, 20*(9), 1408-1416. https://doi.org/10.46743/2160-3715/2015.2281

Gabčanová, I. (2011). The employees–The most important asset in the organizations. *Human Resources Management & Ergonomics, 5*(1), 30-33.

Gal, S., Shelef, L., Oz, I., Yavnai, N., Carmon, E., & Gordon, S. (2016). The contribution of personal and seniority variables to the presence of stress symptoms among Israeli UAV operators. *Disaster and Military Medicine, 2*(18), 1-8. https://doi.org/10.1186/s40696-016-0028-1

Garcia-Guiu, C., Moya, M., Molero, F., & Moriano, J. A. (2016). Transformational leadership and group potency in small military units: The mediating role of group identification and cohesion. *Revista de Psicología del Trabajo y de las Organizaciones, 32*(3), 145-152. https://doi.org/10.1016/j.rpto.2016.06.002

Gay, L. R., Mills, G., & Airasian, P. (2006). *Educational research: Competencies for analysis and applications* (8th ed.) Pearson.

Geiger, T., & Pivovarova, M. (2018). The effects of working conditions on teacher retention. *Teachers and Teaching, 24*(6), 604-625. https://doi.org/10.1080/13540602.2018.1457524

Geltner, B. B., & Shelton, M. M. (1991). Expanded notions of strategic instructional leadership: The principal's role with student support personnel. *Journal of School Leadership, 1*(4), 338-350. https://doi.org/10.1177/105268469100100406

George, C. (2015). Retaining professional workers: What makes them stay? *Employee Relations, 37*(1), 102-121. https://doi.org/10.1108/ER-10-2013-0151

Ghazi, S. R., Shahzada, G., & Khan, M. S. (2013). Resurrecting Herzberg's two factor theory: An implication to the university teachers. *Journal of Educational and Social Research, 3*(2), 445-445.

Glazzard, J., & Rose, A. (2019). The impact of teacher well-being and mental health on pupil progress in primary schools. *Journal of Public Mental Health, 19*(4), 1-9. https://doi.org/10.1108/JPMH-02-2019-0023

Gonzales, J. (2016). Leadership styles in military settings and their influences on program satisfaction. [Master's Thesis, Georgia Southern University]. *Electronic Theses and Dissertations, 14*, 1-61. https://digitalcommons.georgiasouthern.edu/etd/1461

Gonzalez-Escobar, M., Silva-Peña, I., Precht Gandarillas, A., & Kelchtermans, G. (2020). Teacher turnover in Latin America: A literature review. *Cadernos de Pesquisa-Fundação Carlos Chagas, 50*(176), 592-604. https://doi.org/10.1590/198053146706

Goodwin, G. F., Blacksmith, N., & Coats, M. R. (2018). The science of teams in the military: Contributions from over 60 years of research. *American Psychologist, 73*(4), 322. http://dx.doi.org/10.1037/amp0000259

Gray, C., Wilcox, G., & Nordstokke, D. (2017). Teacher mental health, school climate, inclusive education and student learning: A review. *Canadian Psychology, 58*,(3), 203–210. https://psycnet.apa.org/doi/10.1037/cap0000117

Greene-Shortridge, T. M., Britt, T. W., & Castro, C. A. (2007). The stigma of mental health problems in the military. *Military Medicine, 172*(2), 157-161. https://doi.org/10.7205/MILMED.172.2.157

Grieco, K. A. (2018). The 2018 national defense strategy: Continuity and competition. *Strategic Studies Quarterly, 12*(2), 3-8.

Griffith, J. (2019). The sexual harassment–suicide connection in the US military: Contextual effects of hostile work environment and trusted unit leaders. *Suicide and Life Threatening Behavior*, *49*(1), 41-53. https://doi.org/10.1111/sltb.12401

Gu, J., Chen, Z., Huang, Q., Liu, H., & Huang, S. (2018). A multilevel analysis of the relationship between shared leadership and creativity in inter-organizational teams. *The Journal of Creative Behavior*, *2*(2), 109-126. https://doi.org/10.1002/jocb.135

Gu, S. Q., Yan, X. T., Cheng, Z. H., Wu, Z. G., & Wang, G. Q. (2014). Relationship between big five personality and mental health in college students. *Chinese Journal of Clinical Psychology, 22*(2), 354-356.

Guchait, P., & Cho, S. (2010). The impact of human resource management practices on intention to leave of employees in the service industry in India: The mediating role of organizational commitment. *The International Journal of Human Resource Management, 21*(8), 1228-1247. https://doi.org/10.1080/09585192.2010.483845

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, *18*(1), 59-82. https://doi.org/10.1080/09585192.2010.483845

Gumus, S., Bellibas, M. S., Esen, M., & Gumus, E. (2018). A systematic review of studies on leadership models in educational research from 1980 to 2014. *Educational Management Administration & Leadership, 46*(1), 25-48. https://doi.org/10.1177/1525822X05279903

Gupta, V. K., Huang, R., & Niranjan, S. (2010). A longitudinal examination of the relationship between team leadership and performance. *Journal of Leadership & Organizational Studies, 17*(4), 335-350. https://doi.org/10.1177/1548051809359184

Habib, N., Awan, S. H., & Sahibzada, S. A. (2017). Is Herzberg's two factor theory valid in the context of performance management system? A study of private banks of Pakistan. *Journal of Managerial Sciences*, *11*(3), 183-198.

Hagihara, A., Tarumi, K., & Nobutomo, K. (2003). Positive and negative effects of social support on the relationship between work stress and alcohol consumption. *Journal of Studies on Alcohol, 64*(6), 874–883. https://doi.org/10.15288/jsa.2003.64.874

Hallinger, P., Gümüş, S., & Bellibaş, M. Ş. (2020). 'Are principals instructional leaders yet?' A science map of the knowledge base on instructional leadership, 1940–2018. *Scientometrics, 122*, 1629–1650. https://doi.org/10.1007/s11192-020-03360-5

Hallinger, P., & Murphy, J. (1985). Assessing the instructional management behavior of principals. *The Elementary School Journal, 86*(2), 217-247. https://doi.org/10.1086/461445

Hardison, C. M., Aharoni, E., Larson, C., Trochlil, S., & Hou, A. C. (2017). *Stress and dissatisfaction in the Air Force's remotely piloted aircraft community: Focus group findings* (No. RR-1756-AF). RAND Corporation. https://www.rand.org/pubs/research_reports/RR1756.html

Hardison, C. M., Mattock, M. G., & Lytell, M. C. (2012). *Incentive pay for remotely piloted aircraft career fields*. RAND Corporation. https://doi.org/10.7249/RR1756

Harris, D. N., & Sass, T. R. (2011). Teacher training, teacher quality and student achievement. *Journal of Public Economics, 95*(7-8), 798-812. https://doi.org/10.1016/j.jpubeco.2010.11.009

Harris, R. J., McDonald, D. P., & Sparks, C. S. (2018). Sexual harassment in the military: Individual experiences, demographics, and organizational contexts. *Armed Forces & Society*, *44*(1), 25-43. https://doi.org/10.1177/0095327X16687069

Härtel, C. E. (2008). How to build a healthy emotional culture and avoid a toxic culture. *Research Companion to Emotion in Organizations*, 575-588. https://doi.org/10.4337/9781848443778

Heilmann, S. G., Bell, J. E., & McDonald, G. K. (2009). Work-home conflict: A study of the effects of role conflict on military officer turnover intention. *Journal of Leadership & Organizational Studies, 16*(1), 85-96. https://doi.org/10.1177/1548051809334194

Henderson, C., & Dancy, M. H. (2007). Barriers to the use of research-based instructional strategies: The influence of both individual and situational characteristics. *Physical*

Review Special Topics-Physics Education Research, 3(2), 1-14. https://doi.org/10.1103/PhysRevSTPER.3.020102

Hendricks, M. D. (2014). Does it pay to pay teachers more? Evidence from Texas. *Journal of Public Economics, 109*, 50-63. https://doi.org/10.1016/j.jpubeco.2013.11.001

Hensel, N. (2016). The defense industry: Tradeoffs between fiscal constraints and national security challenges. *Business Economics, 51*(2), 111-122. https://doi.org/10.1057/be.2016.16

Herzberg, F. (1966). *Work and the nature of man.* World Publishing.

Herzberg, F. (2003). One more time: How do you motivate employees? *Harvard Business Review, 81*(1), 3-11.

Herzberg, F., Mausner, B., & Snydermann, B. (1959). *The motivation to work*. Wiley.

Hibbert, P., Coupland, C., & MacIntosh, R. (2010). Reflexivity: Recursion and relationality in organizational research processes. *Qualitative Research in Organizations and Management: An International Journal*, *1*, 47-62. https://doi.org/10.1108/17465641011042026

Hijazi, A., Ferguson, C. J., Ferraro, F. R., Hall, H., Hovee, M., & Wilcox, S. (2019). Psychological dimensions of drone warfare. *Current Psychology, 38*(5), 1285-1296. https://doi.org/10.1007/s12144-017-9684-7

Hoch, J. E., & Kozlowski, S. W. (2014). Leading virtual teams: Hierarchical leadership, structural supports, and shared team leadership. *Journal of Applied Psychology, 99*(3), 390-403. https://doi.org/10.1037/a0030264

Hodges, J. A. (2015). The career cost: Does it pay for a military pilot to leave the service for the airlines? [Master's thesis, Naval Postgraduate School]. Defense Technical Information Center.

Hofstede, G. (1980). Motivation, leadership, and organization: Do American theories apply abroad? *Organizational Dynamics, 9*(1), 42-63. https://doi.org/10.1016/0090-2616(80)90013-3

Hom, M. A., Stanley, I. H., Schneider, M. E., & Joiner, T. E. (2017). A systematic review of help-seeking and mental health service utilization among military service members. *Clinical Psychology Review, 53*, 59-78. https://doi.org/10.1016/j.cpr.2017.01.008

Horng, E. L. (2009). Teacher tradeoffs: Disentangling teachers' preferences for working conditions and student demographics. *American Educational Research Journal, 46*(3), 690e717. https://doi.org/10.3102/0002831208329599

Hosek, J., Asch, B. J., Mattock, M. G., & Smith, T. D. (2018). *Military and civilian pay levels, trends, and recruit quality*. RAND Corporation. https://doi.org/10.7249/RR2396

Hudson, A. (2020, November 1). *Erasing artificial barriers*. Air Force Magazine. https://www.airforcemag.com/article/erasing-artificial-barriers/

Husserl, E. (1962). *Ideas: General introduction to pure phenomenology*. Routledge.

Husserl, E. (1970). *Logical investigations*. Routledge

Husserl, E. (2017). *Ideas: General introduction to pure phenomenology.* Martino Fine Books.

ICAO. (n.d.). *Remotely piloted aircraft system (RPAS) concept of operations (CONOPS) for international IFR operations*. https://www.icao.int/safety/UA/Documents/ICAO%20RPAS%20CONOPS.pdf

Ingersoll, R. M., & May, H. (2012). The magnitude, destinations, and determinants of mathematics and science teacher turnover. *Educational Evaluation and Policy Analysis, 34*(4), 435-464. https://doi.org/10.3102/0162373712454326

Ingersoll, R. M., & Smith, T. M. (2003). The wrong solution to the teacher shortage. *Educational Leadership, 60*(8), 30-33.

Israel, K., & Nesbit, R. (2004). Defense science board study on unmanned aerial vehicles and uninhabited combat aerial vehicles. *Defense Science Board.* https://apps.dtic.mil/sti/citations/ADA423585

Ivancevich, J. M., Matteson, M. T., & Konopaske, R. (1990). *Organizational behavior and management.* McGraw-Hill Education.

Jayasingam, N. M. S. (2019). Military leaders' leadership styles and subordinates hardiness level: Can transformational and transactional leadership influence soldier's hardiness? *International Journal of Business and Management, 3*(3), 26-36. https://doi.org/10.26666/rmp.ijbm.2019.3.4

Johnson, R. O., O'Neill, M., Worch, P., Zacharias, G., & Hunt, B. (2003). *Unmanned aerial vehicles in perspective: Effects, capabilities, and technologies.* Scientific Advisory Board. https://apps.dtic.mil/sti/citations/ADA426998

Kanfer, R., & Chen, G. (2016). Motivation in organizational behavior: History, advances and prospects. *Organizational Behavior and Human Decision Processes, 136*, 6–19. https://doi.org/10.1016/j.obhdp.2016.06.002

Karas, R. S. (2017). As contested battlespace grows, MQ-9 explores new roles. *Inside the Air Force, 28*(26), 7-9.

Karatepe, O. M. (2013). High-performance work practices and hotel employee performance: The mediation of work engagement. *International Journal of Hospitality Management, 32*, 132-140. https://doi.org/10.1016/j.ijhm.2012.05.003

Kark, R., Karazi-Presler, T., & Tubi, S. (2016). Paradox and challenges in military leadership. *Monographs in Leadership and Management,* 8, 157-187. https://doi.org/10.1108/S1479-357120160000008031

Karsenti, T., Collin, S., & Dumouchel, G. (2013). Le décrochage enseignant: État des connaissances [Teacher attrition: Literature review]. *International Review of Education, 59*(5), 549-568. https://doi.org/10.1007/s11159-013-9367-z

Katz, C. C., Julien-Chinn, F. J., & Wall, E. (2021). Perceptions of agency leadership and intent to stay: an examination of turnover in the child welfare workforce. *Journal of Public Child Welfare*, 1-20. https://doi.org/10.1080/15548732.2021.1876808

Keane, J. F., & Carr, S. S. (2013). A brief history of early unmanned aircraft. *Johns Hopkins APL Technical Digest, 32*(3), 558-571.

Kelley, C. (1997). Teacher compensation and organization. *Educational Evaluation and Policy Analysis*, *19*(1), 15-28. https://doi.org/10.3102/01623737019001015

Khamidovna, P. O. (2020). The mechanism of developing a culture of communication in students in the educational process. *JCR, 7*(12), 3096-3103.

Kim, Y. J., Lee, S. Y., & Cho, J. H. (2020). A study on the job retention intention of nurses based on social support in the Covid-19 situation. *Sustainability, 12*(18), 1-9. https://doi.org/10.3390/su12187276

Kleinman, A., Estrin, G. L., Usmani, S., Chisholm, D., Marquez, P. V., Evans, T. G., & Saxena, S. (2016). Time for mental health to come out of the shadows. *The Lancet, 387*(10035), 2274. https://doi.org/10.1016/S0140-6736(16)30655-9

Kline, S., & Hsieh, Y. (2007). Wage differentials in the lodging industry. *Journal of Human Resources in Hospitality & Tourism, 6*(1), 69-84. https://doi.org/10.1300/J171v06n01_04

Knobloch-Fedders, L. M., Knobloch, L. K., Scott, S., & Fiore, H. (2020). Relationship changes of military couples during reintegration: A longitudinal analysis. *Journal of Social and Personal Relationships, 37*(7), 2145-2165. https://doi.org/10.1177/0265407520917461

Knobloch-Fedders, L. M., Knobloch, L. K., & Yorgason, J. B. (2018). Communication of military couples during deployment predicting generalized anxiety upon reunion. *Journal of Family Psychology, 32*(1), 12. https://doi.org/10.1037/fam0000344

Koenig, H. G., Youssef, N. A., & Pearce, M. (2019). Assessment of moral injury in veterans and active duty military personnel with PTSD: A review. *Frontiers in Psychiatry, 10*(443), 1-15. https://doi.org/10.3389/fpsyt.2019.00443

Kossek, E. E., Pichler, S., Bodner, T., & Hammer, L. B. (2011). Workplace social support and work–family conflict: A meta-analysis clarifying the influence of general and work–family-specific supervisor and organizational support. *Personnel Psychology, 64*(2), 289-313. https://doi.org/10.1111/j.1744-6570.2011.01211.x

Kossivi, B., Xu, M., & Kalgora, B. (2016). Study on determining factors of employee retention. *Open Journal of Social Sciences, 4*(5), 261-268. http://dx.doi.org/10.4236/jss.2016.45029

Kovess-Masféty, V., Rios-Seidel, C., & Sevilla-Dedieu, C. (2007). Teachers' mental health and teaching levels. *Teaching and Teacher Education, 23*(7), 1177-1192. https://doi.org/10.1016/j.tate.2006.07.015

Kreuzer, M. P. (2015). Nightfall and the cloud: Examining the future of unmanned combat aerial vehicles and remotely piloted aircraft. *Air and Space Power Journal, 29*(5), 57-73.

Krüger, C., Rowold, J., Borgmann, L., Staufenbiel, K., & Heinitz, K. (2011). The discriminant validity of transformational and transactional leadership. *Journal of Personnel Psychology, 10*(2), 49-60. https://doi.org/10.1027/1866-5888/a000032.

Kundu, S. C., & Lata, K. (2017). Effects of supportive work environment on employee retention. *International Journal of Organizational Analysis., 25*(4), 1-29. https://doi.org/10.1108/IJOA-12-2016-1100

Labuschagne, A. (2003). Qualitative research: Airy fairy or fundamental. *The Qualitative Report*, *8*(1), 100-103. https://doi.org/10.46743/2160-3715/2003.1901

Ladd, H. F. (2011). Teachers' perceptions of their working conditions: How predictive of planned and actual teacher movement? *Educational Evaluation and Policy Analysis, 33*(2), 235-261. https://doi.org/10.3102/0162373711398128.

Langen, S. K. (2014). Disciplined initiative: Freedom to improvise under directive leadership. 4th *IBA Bachelor Thesis Conference,* 1-11.

Latham, G. P. (2012). *Work motivation: History, theory, research, and practice* (2nd ed.). Sage Publications, Inc. https://doi.org/10.4135/9781506335520

Lei, L., & Wang, Y. (2017). An empirical study of special education teachers' current occupational adaptation and its relationship with their psychological resilience-based on the investigation into special education schools in S City. *Chinese Journal of Special Education, 3*, 21-27.

Leithwood, K. (1994). Leadership for school restructuring. *Educational Administration Quarterly, 30*(4), 498-518. https://doi.org/10.1177/0013161X94030004006

Leithwood, K. (2001). School leadership in the context of accountability policies. *International Journal of Leadership in Education, 4*(3), 217-235. https://doi.org/10.1080/13603120110057082

Leithwood, K., Jantzi, D., & Steinbach, R. (1999). *Changing leadership for changing times*. McGraw-Hill Education.

Leonina, E. B. (2017). Expectancy theory explaining civil servants' work motivation: Evidence from a Romanian city hall. *USV Annals of Economics and Public Administration, 17*(2), 146-160.

Licklider, C. A. (2011). *A meta-analysis of the antecedents of voluntary turnover in studies involving active duty military member populations* (Publication No. 1502). [Master's Thesis, Air Force Institute of Technology]. AFIT Scholar Theses and Dissertations.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications. https://doi.org/10.1016/0147-1767(85)90062-8

Lindsay, G., & Schwind, J. K. (2015). Arts-informed narrative inquiry into nurse teachers' legacy for the next generation. *Reflective Practice, 16*(2), 195–205. http://doi.org/10.1080/14623943.2014.992405

Lindy, C., & Schaefer, F. (2010). Negative workplace behaviours: An ethical dilemma for nurse managers. *Journal of Nursing Management, 18*(3), 285-292. https://doi.org/10.1111/j.1365-2834.2010.01080.x

Liu, X. S., & Meyer, J. P. (2005). Teachers' perceptions of their jobs: A multilevel analysis of the teacher follow-up survey for 1994-95. *Teachers College Record, 107*(5), 985-1003. https://doi.org/10.1111/j.1467-9620.2005.00501.x

Lloyd, R., & Mertens, D. (2018). Expecting more out of expectancy theory: History urges inclusion of the social context. *International Management Review*, *14*(1), 28-43.

Loan, L. (2020). The influence of organizational commitment on employees' job performance: The mediating role of job satisfaction. *Management Science Letters, 10*(14), 3307-3312. http://dx.doi.org/10.5267/j.msl.2020.6.007

Losey, S. (2020, March 5). *Air Mobility Command ends flying-only career track.* Air Force Times. https://www.airforcetimes.com/news/your-air-force/2020/03/06/air-mobility-command-ends-flying-only-career-track/

Lunenburg, F. C. (2011). Expectancy theory of motivation: Motivating by altering expectations Sam Houston State University. *International Journal of Management, Business, and Administration, 15*(1), 1-6.

Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008). The mediating role of psychological capital in the supportive organizational climate-employee performance relationship. *Journal of Organizational Behavior, 29* (2), 219-238. https://doi.org/10.1002/job.507

Lyubovnikova, J., Legood, A., Turner, N., & Mamakouka, A. (2017). How authentic leadership influences team performance: The mediating role of team reflexivity. *Journal of business Ethics, 141*(1), 59-70. https://doi.org/10.1007/s10551-015-2692-3

Mailey, E. L., Mershon, C., Joyce, J., & Irwin, B. C. (2018). "Everything else comes first": A mixed-methods analysis of barriers to health behaviors among military spouses. *BMC Public Health, 18*(1), 1-11. https://doi.org/10.1186/s12889-018-5938-z

Manganelli, L., Thibault-Landry, A., Forest, J., & Carpentier, J. (2018). Self-determination theory can help you generate performance and well-being in the workplace: A review of

the literature. *Advances in Developing Human Resources, 20*(2), 227–240. https://doi.org/10.1177/1523422318757210

Martin, I. H., Prophet, T., Owens, C., Martin, J., & Plummer, G. (2017). “Corps” leadership: A cadet perspective on shared leadership. *International Journal of Public Leadership, 13*(3), 182-189. https://doi.org/10.1108/IJPL-02-2017-0009

Martínez-Córcoles, M., & Stephanou, K. (2017). Linking active transactional leadership and safety performance in military operations. *Safety Science, 96*, 93-101. https://doi.org/10.1016/j.ssci.2017.03.013

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*(4), 370–396. https://doi.org/10.1037/h0054346

McCleskey, J. A. (2014). Situational, transformational, and transactional leadership and leadership development. *Journal of Business Studies Quarterly, 5*(4), 117-130.

McGee, M. (2015). *Air transport pilot supply and demand: Current state and effects of recent legislation*. [Doctoral dissertation, RAND Graduate School]. Defense Technical Information Center.

Mc Glynn, K., Griffin, M. Q., Donahue, M., & Fitzpatrick, J. J. (2012). Registered nurse job satisfaction and satisfaction with the professional practice model. *Journal of Nursing Management, 20*(2), 260–265. https://doi.org/10.1111/j.1365-2834.2011.01351.x

McLean, L., Abry, T., Taylor, M., Jimenez, M., & Granger, K. (2017). Teachers' mental health and perceptions of school climate across the transition from training to teaching. *Teaching and Teacher Education, 65*, 230-240. https://doi.org/10.1016/j.tate.2017.03.018

Mercer, M. K., Carpenter, G., & Wyman, O. (2010). *Pay for results: Aligning executive compensation with business performance.* Wiley.

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.

Michael, B., Prince, A. F., & Chacko, A. (2016). Impact of compensation package on employee retention. *Clear International Journal of Research in Commerce & Management, 7*(10), 36-40.

Miles, M. B., Huberman, A. M., & Daldana, J. (2014). *Qualitative data analysis: A sourcebook of new methods (3rd ed.).* SAGE Publications.

Military Pilot Shortage, 115th Cong. (2017) (testimony of Grosso, G. M.). https://www.gpo.gov/fdsys/pkg/CHRG-115hhrg25095/pdf/CHRG-115hhrg25095.pdf

Millard, T. (2015). *Schools in 'crisis': Nevada short nearly 1,000 teachers.* Reno Gazette-Journal. https://www.rgj.com/story/news/education/2015/10/08/schools-crisis-nevada-short-nearly-1000-teachers/73618992/

Mills, G. (2007). *Action research: A guide for the teacher researcher*. Pearson Publishing.

Mintrop, R., Pryor, L., & Ordenes, M. (2018). A complex adaptive system approach to evaluation: application to a pay-for-performance program in the USA. *Educational Assessment, Evaluation and Accountability*, *30*(3), 285-312. https://doi.org/10.1007/s11092-018-9276-6

Mir, M. M., Khan, A., & Abbas, Q. (2020). Transformational leadership style and talent retention in Pakistani banks: A serial multiple mediation model. *Jurnal Ekonomi, 19*(1), 63-76. https://doi.org/10.15408/etk.v19i1.11264

Mohatt, N. V., Boeckmann, R., Winkel, N., Mohatt, D. F., & Shore, J. (2017). Military Mental Health First Aid: Development and preliminary efficacy of a community training for

improving knowledge, attitudes, and helping behaviors. *Military Medicine, 182*(1-2), e1576-e1583. https://doi.org/10.7205/MILMED-D-16-00033

Mokhber, M., bin Wan Ismail, W. K., & Vakilbashi, A. (2015). Effect of transformational leadership and its components on organizational innovation. *Iranian Journal of Management Studies, 8*(2), 221-241. https://dx.doi.org/10.22059/ijms.2015.50076

Moustakas, C. (1994). *Phenomenological research methods*. Sage publications.

Msengeti, D. M., & Obwogi, J. (2015). Effects of pay and work environment on employee retention: A study of hotel industry in Mombasa County. *International Journal of Scientific and Research Publications, 5*(4), 1-10.

Najafipour, F. (2016). Commanders of the 21st century: Different skills of today commanders. *Journal of Archives in Military Medicine, 4*(2), 1-2. https://doi.org/10.5812/jamm.38945

National Center for Education Statistics. (2012). *Schools and staffing survey.* https://nces.ed.gov/surveys/sass/tables/sass1112_2013314_t12n_005.asp

Naz, S., Li, C., Nisar, Q. A., Khan, M. A. S., Ahmad, N., & Anwar, F. (2020). A study in the relationship between supportive work environment and employee retention: Role of organizational commitment and person–organization fit as mediators. *SAGE Open, 10*(2), 1-20. https://doi.org/10.1177/2158244020924694

Neubauer, B. E., Witkop, C. T., & Varpio, L. (2019). How phenomenology can help us learn from the experiences of others. *Perspectives on Medical Education, 8*(2), 90-97. https://doi.org/10.1007/s40037-019-0509-2

Nikpour, A. (2017). The impact of organizational culture on organizational performance: The mediating role of employee's organizational commitment. *International Journal of*

Organizational Leadership, 6, 65-72. http://dx.doi.org.ezproxy.liberty.edu/10.19236/IJOL.2017.01.05

Norton, T. L. (2016). *Staffing for unmanned aircraft systems (UAS) operations*. Institute for Defense Analyses (IDA).

Odden, A. (2000). New and better forms of teacher compensation are possible. *Phi Delta Kappan*, *81*(5), 361.

Office of the Under Secretary of Defense for Personnel and Readiness. (2002). *Report of the Ninth Quadrennial Review of Military Compensation, Vol. 1-V.* https://militarypay.defense.gov/Portals/3/Documents/Reports/9th_QRMC_Report_Volumes_I_-_V.pdf

Ogle, A. D., Reichwald, R., & Rutland, J. B. (2018). Psychological impact of remote combat/graphic media exposure among US Air Force intelligence personnel. *Military Psychology, 30*(6), 476-486. https://doi.org/10.1080/08995605.2018.1502999

Olsen, J. (1972). *Aphrodite: Desperate mission*. Pyramid Books.

Otis, N., & Straver, M. (2008). *Review of attrition and retention research for the Canadian Forces.* Defense R&D Canada – Center for Operational Research and Analysis (CORA).

Ouma, J. A., Chappelle, W. L., & Salinas, A. (2011). *Facets of occupational burnout among US Air Force active duty and National Guard/reserve MQ-1 predator and MQ-9 reaper operators* (No. AFRL-SA-WP-TR-2011-0003). School of Aerospace Medicine.

Ozsoy, E. (2019). An Empirical Test of Herzberg's Two-Factor Motivation Theory. *Marketing and Management of Innovations, 1*, 11-20. http://doi.org/10.21272/mmi.2019.1-01

Padilla-Díaz, M. (2015). Phenomenology in educational qualitative research: Philosophy as science or philosophical science. *International Journal of Educational Excellence*, *1*(2), 101-110. https://doi.org/10.18562/IJEE.2015.0009

Panzino, C. (2017, December 29). *New in 2018: AMC pushes for aviation-only career track.* Air Force Times. https://www.airforcetimes.com/news/your-air-force/2017/12/29/new-in-2018-amc-pushes-for-aviation-only-career-track/

Paone, T. R., Malott, K. M., Pulliam, N., & Gao, J. (2018). Use of photovoice in processing race-based topics in a multicultural counseling course. *Journal of Creativity in Mental Health, 13*(1), 92–105. https://doi.org/10.1080/15401383.2017.1294517

Papay, J. P., & Kraft, M. A. (2015). Productivity returns to experience in the teacher labor market: Methodological challenges and new evidence on long-term career improvement. *Journal of Public Economics*, *130*, 105-119. https://doi.org/10.1016/j.jpubeco.2015.02.008

Parijat, P., & Bagga, S. (2014). Victor Vroom's expectancy theory of motivation–An evaluation. *International Research Journal of Business and Management, 7*(9), 1-8.

Park, S., & Kim, S. (2017). The linkage between work unit performance perceptions of U. S federal employees and their job satisfaction: an expectancy theory. *Transylvanian Review of Administrative Sciences, 52*, 77-93. http://dx.doi.org/10.24193/tras.52E.5

Patton, M. Q. (1980). *Qualitative evaluation methods*. SAGE Publications.

Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice (4th ed).* SAGE Publications.

Pearce, C. L., & Conger, J. A. (Eds.). (2003). *Shared leadership: Reframing the hows and whys of leadership*. Sage Publications.

Pearce, C. L., Manz, C. C., & Sims, H. P., Jr. (2009). Where do we go from here? Is shared leadership the key to team success? *Organizational Dynamics*, 38, 234–238. https://doi.org/10.1016/j.orgdyn.2009.04.008

Peredaryenko, M. S., & Krauss, S. E. (2013). Calibrating the human instrument: Understanding the interviewing experience of novice qualitative researchers. *The Qualitative Report, 18*(43), 1-17. https://doi.org/10.46743/2160-3715/2013.1449

Perrachione, B. A., Rosser, V. J., & Petersen, G. J. (2008). Why do they stay? Elementary teachers' perceptions of job satisfaction and retention. *The Professional Educator, 32*(2), 1–17.

Pertiwi, N. K. A. Y., & Supartha, I. W. G. (2021). The effect of compensation and organizational commitment on employee satisfaction and retention. *American Journal of Humanities and Social Sciences Research, 1*(3), 333-342.

Peterson, M. W., & Spencer, M. G. (1990). Understanding academic culture and climate. *New Directions for Institutional Research, 68*, 3-18. https://doi.org/10.1002/ir.37019906803

Petrovich, J. (2012). Culturally competent social work practice with veterans: An overview of the US military. *Journal of Human Behavior in the Social Environment, 22*(7), 863-874. https://doi.org/10.1080/10911359.2012.707927

Pflanz, S. (2001). Occupational stress and psychiatric illness in the military: Investigation of the relationship between occupational stress and mental illness among military mental health patients. *Military Medicine, 166*(6), 457-462. https://doi.org/10.1093/milmed/166.6.457

Pflanz, S. E., & Ogle, A. D. (2006). Job stress, depression, work performance, and perceptions of supervisors in military personnel. *Military Medicine, 171*(9), 861-865. https://doi.org/10.7205/MILMED.171.9.861

Phillips-Levine, L. T. (2020). Redistributing airpower for the spectrum of warfare. *Air & Space Power Journal, 34*(3), 54-69.

Porter, L. W., & Lawler, E. E. (1968). *Managerial attitudes and performance*. Irwin-Dorsey

Pramono, R. (2021). A phenomenology study of young lecturers in higher education: Journeys in building professional identity. *International Journal of Advanced Science and Technology, 29*(5), 7063-7075.

Prince, M., Patel, V., Saxena, S., Maj, M., Maselko, J., Phillips, M. R., & Rahman, A. (2007). No health without mental health. *The Lancet, 370*(9590), 859-877. https://doi.org/10.1016/S0140-6736(07)61238-0

Purvis, R. L., Zagenczyk, T. J., & McCray, G. E. (2015). What's in it for me? Using expectancy theory and climate to explain stakeholder participation, its direction and intensity. *International Journal of Project Management, 33*(1), 3-14. https://doi.org/10.1016/j.ijproman.2014.03.003

Purwanto, A., Asbari, M., & budi Santoso, P. (2019). Influence of transformational and transactional leadership style toward food safety management system ISO 22000: 2018 performance of food industry in Pati Central Java. *Inovbiz: Jurnal Inovasi Bisnis, 7*(2), 180-185. https://doi.org/10.35314/inovbiz.v7i2.1213

Rabiee, F. (2004). Focus-group interview and data analysis. *Proceedings of the Nutrition Society*, *63*(4), 655-660. https://doi.org/10.1079/PNS2004399

Rahman, M. S. (2017). The advantages and disadvantages of using qualitative and quantitative approaches and methods in language “testing and assessment” research: A literature review. *Journal of Education and Learning, 6*(1), 102–112. https://doi.org/10.5539/jel.v6n1p102

Ramthun, A. J., & Matkin, G. S. (2014). Leading dangerously: A case study of military teams and shared leadership in dangerous environments. *Journal of Leadership & Organizational Studies*, *21*(3), 244-256. https://doi.org/10.1177/1548051814529827

Reardon, L., Chappelle, W., Goodman, T., Cowper, S., Prince, L., & Thompson, W. (2016). Prevalence of posttraumatic stress symptoms in United States Air Force intelligence, surveillance, and reconnaissance agency imagery analysts. *Psychological Trauma: Theory, Research, Practice, and Policy, 8*(1), 55-62. https://doi.org/10.1037/tra0000046

Reaves, K. R. C. (2018, February 9). *MQ-9 Reaper Airmen arrive at Shaw*. 20th Fighter Wing Public Affairs. https://www.shaw.af.mil/News/Article-Display/Article/1436886/mq-9-reaper-airmen-arrive-at-shaw/

Reimann, C. A., & Mazuchowski, E. L. (2018). Suicide rates among active duty service members compared with civilian counterparts, 2005–2014. *Military Medicine, 183*(1), 396-402. https://doi.org/10.1093/milmed/usx209

Richman, A. L., Civian, J. T., Shannon, L. L., Jeffrey Hill, E., & Brennan, R. T. (2008). The relationship of perceived flexibility, supportive work-life policies, and use of formal flexible arrangements and occasional flexibility to employee engagement and expected retention. *Community, Work & Family, 11*(2), 183-197. https://doi.org/10.1080/13668800802050350

Rinehart, C. S. (2017). Sharing security in an era of international cooperation: Unmanned aerial vehicles and the United States' Air Force. *Defense & Security Analysis, 33*(1), 45-56. https://doi.org/10.1080/14751798.2016.1269390

Rockoff, J. E. (2004). The impact of individual teachers on student achievement: Evidence from panel data. *American Economic Review, 94*(2), 247-252. https://doi.org/10.1257/0002828041302244

Rodriguez, A., & Smith, J. (2018). Phenomenology as a healthcare research method. *Evidence-Based Nursing, 21*(4) 96–98. http://dx.doi.org/10.1136/eb-2018-102990

Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How teacher turnover harms student achievement. *American Educational Research Journal, 50*(1), 4-36. https://doi.org/10.3102/0002831212463813

Rosen, C. S., Greenbaum, M. A., Fitt, J. E., Laffaye, C., Norris, V. A., & Kimerling, R. (2011). Stigma, help-seeking attitudes, and use of psychotherapy in veterans with diagnoses of posttraumatic stress disorder. *The Journal of Nervous and Mental Disease, 199*(11), 879-885. https://doi.org/10.1097/nmd.0b013e3182349ea5

Rowold, J. (2014). Instrumental leadership: Extending the transformational-transactional leadership paradigm. *German Journal of Human Resource Management, 28*(3), 367–390. https://doi.org/10.1177/239700221402800304

Ruthankoon, R., & Ogunlana, S. O. (2003). Testing Herzberg's two-factor theory in the Thai construction industry. *Engineering, Construction and Architectural Management, 10*(5), 333–341. https://doi.org/10.1108/09699980310502946

Sadler, A. G., Lindsay, D. R., Hunter, S. T., & Day, D. V. (2018). The impact of leadership on sexual harassment and sexual assault in the military. *Military Psychology*, *30*(3), 252-263. https://doi.org/10.1080/08995605.2017.1422948

Saenz-Armstrong, P. (2021, February 11th). *Upping the ante: The current state of teacher pay in the nation's large school districts.* National Council on Teacher Quality.

https://www.nctq.org/blog/Upping-the-ante:-The-current-state-of-teacher-pay-in-the-nations-large-school-districts

Sahito, Z., & Vaisanen, P. (2017). The diagonal model of job satisfaction and motivation: Extracted from the logical comparison of content and process theories. *International Journal of Higher Education, 6*(3), 209–230. https://doi.org/10.5430/ijhe.v6n3p209

Schwandt, T. A. (2007). *The Sage dictionary of qualitative inquiry*. SAGE Publications. https://doi.org/10.4135/9781412986281

Seal, K. H., Maguen, S., Cohen, B., Gima, K. S., Metzler, T. J., Ren, L., Bertenthal, C. R., & Marmar, C. R. (2010). VA mental health services utilization in Iraq and Afghanistan veterans in the first year of receiving new mental health diagnoses. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies, 23*(1), 5-16. https://doi.org/10.1002/jts.20493

Shabane, Z. W., Schultz, C. M., & van Hoek, C. E. (2017). Transformational leadership as a mediator in the relationship between satisfaction with remuneration and the retention of artisans in the military. *SA Journal of Human Resource Management, 15*, 1-9. https://doi.org/10.4102/sajhrm.v15i0.923

Shaker, S. M., & Wise, A. R. (1988). W*ar without men: Robots on the future battlefield, Pergammon-Brassey's international defense.* Publications, Inc.

Sharp, M. L., Fear, N. T., Rona, R. J., Wessely, S., Greenberg, N., Jones, N., & Goodwin, L. (2015). Stigma as a barrier to seeking health care among military personnel with mental health problems. *Epidemiologic Reviews, 37*(1), 144-162. https://doi.org/10.1093/epirev/mxu012

Shattuck, N. L., Matsangas, P., & Dahlman, A. S. (2018). *Sleep and fatigue issues in military operations. In Sleep and Combat-Related Post Traumatic Stress Disorder.* Springer. https://doi.org/10.1007/978-1-4939-7148-0_7

Sheridan, J. E. (1992). Organizational culture and employee retention. *Academy of Management Journal, 35*(5), 1036-1056. https://doi.org/10.5465/256539

Silaban, N., & Syah, T. Y. R. (2018). The influence of compensation and organizational commitment on employees' turnover intention. *IOSR Journal of Business and Management, 20*(3), 1-6. https://doi.org/10.20498/eajbe.2018.6.2.1

Simsek, H. (2013). Transformational leadership in educational context: a fantasy of education scholars. editor's choice: selected keynote speech. *Eurasian Journal of Educational Research, 51*, 1-6.

Sminchişe, V. (2016). Military retention. A comparative outlook. *Journal of Defense Resources Management, 7*(1), 85-98.

Smith, J. G., Vilhauer, R. P., & Chafos, V. (2017). Do military veteran and civilian students function differently in college? *Journal of American College Health*, *65*(1), 76-79. https://doi.org/10.1080/07448481.2016.1245193

Smith, T. D., Asch, B. J., & Mattock, M. G. (2020). *An updated look at military and civilian pay levels and recruit quality*. RAND Corporation. https://doi.org/10.7249/RR3254

Sniteman, S. B. (1980). *US Air Force considerations in implementing a specialized pilot program.* Army Command and General Staff College.

Soshkin, M. (2016). The US Aerospace industry: A manufacturing powerhouse. *Business Economics, 51*(3), 166-180. https://doi.org/10.1057/s11369-016-0008-y

Soyoung, P. A. R. K., & Sungchan, K. I. M. (2017). The linkage between work unit performance perceptions of US federal employees and their job satisfaction: An expectancy theory. *Transylvanian Review of Administrative Sciences, 13*(52), 77-93. http://dx.doi.org/10.24193/tras.52E.5

Spillane, J. P. (2005). Distributed leadership. *The Educational Forum, 69*(2), 143-150. https://doi.org/10.1080/00131720508984678

Springer, M. G. (2019). *You get what you pay for: Why we need to invest in strategic compensation reform*. National Institute for Excellence in Teaching Roundtable. https://www.niet.org/pdf/matthew-springer-strategic-compensation

Springer, M. G., Swain, W. A., & Rodriguez, L. A. (2016). Effective teacher retention bonuses: Evidence from Tennessee. *Educational Evaluation and Policy Analysis, 38*(2), 199-221. https://doi.org/10.3102/0162373715609687

Stahl, B. T. (2015). *Blunting the spear: Why good people get out.* Air University Press.

Stello, C. M. (2011). Herzberg's two-factor theory of job satisfaction: An integrative literature review. *Journal of Education and Human Development*, 1-32.

Strachan, D. L., Källander, K., Nakirunda, M., Ndima, S., Muiambo, A., Hill, Z., & inSCALE study group. (2015). Using theory and formative research to design interventions to improve community health worker motivation, retention and performance in Mozambique and Uganda. *Human Resources for Health, 13*(25), 1-13. https://doi.org/10.1186/s12960-015-0020-8

Stulberg, A. N. (2007). Managing the unmanned revolution in the US Air Force. *Orbis, 51*(2), 251-265. https://doi.org/10.1016/j.orbis.2007.01.005

Suifan, T. S., Diab, H., Alhyari, S., & Sweis, R. J. (2020). Does ethical leadership reduce turnover intention? The mediating effects of psychological empowerment and organizational identification. *Journal of Human Behavior in the Social Environment, 30*(4), 410-428. https://doi.org/10.1080/10911359.2019.1690611

Supatn, N., & Puapradit, T. (2019). Roles of expectancy on employee engagement and job performance. *JABS, 5*(2), 88-98. https://doi.org/10.20474/jabs-5.2.3

Surace, A. (2019). Complexity and leadership: The case of a military organization. *International Journal of Organizational Analysis, 27*(5), 1522-1541. https://doi.org/10.1108/IJOA-12-2018-1614

Sweeney, N. J. (2015). *Predicting active duty Air Force pilot attrition given an anticipated increase in major airline pilot hiring.* [Doctoral dissertation, Pardee RAND Graduate School]. Pardee RAND Dissertations.

Switzer, T. (2020). *Recommendations for improving Air Force pilot retention*. Center for Strategic and International Studies. http://www.jstor.org/stable/resrep26536.1

Talafuse, T., Champagne, L., & Gilts, E. (2019, December). A simulation approach to address MQ-9 flying training unit manning shortfalls. In *2019 Winter Simulation Conference,* 2503-2514. https://doi.org/10.1109/WSC40007.2019.9004826

Tavanti, M. (2008). "Transactional Leadership." In A. Marturano and Gosling, J. (eds) *Leadership: The Key Concept.* Routledge.

Tehseen, S., & Hadi, N. U. (2015). Factors influencing teachers' performance and retention. *Mediterranean Journal of Social Sciences, 6*(1), 233-244. http://dx.doi.org/10.5901/mjss.2015.v6n1p233

Tennies, C. T. (2019). Fortifying remote warriors: Addressing wellness issues among intelligence Airmen. *Air & Space Power Journal, 33*(2), 73-84.

Terrell, S. R. (2016). *Writing a proposal for your dissertation: Guidelines and examples*. The Guilford Press.

Terry, T. L., Eckhause, J. M., McGee, M., Bigelow, J. H., & Emslie, P. (2019). *Projecting Air Force rated officer inventory across the total force: Total force blue line model for rated officer management*. RAND Corporation. https://doi.org/10.7249/RR2796

Thant, Z. M., & Chang, Y. (2021). Determinants of public employee job satisfaction in Myanmar: Focus on Herzberg's two factor theory. *Public Organization Review*, *21*(1), 157-175. https://doi.org/10.1007/s11115-020-00481-6

Thibodeaux, A. K., Labat, M. B., Lee, D. E., & Labat, C. A. (2015). The effects of leadership and high-stakes testing on teacher retention. *Academy of Educational Leadership Journal, 19*(1), 227-249.

Thomas, L., Tuytens, M., Devos, G., Kelchtermans, G., & Vanderlinde, R. (2020). Transformational school leadership as a key factor for teachers' job attitudes during their first year in the profession. *Educational Management Administration & Leadership, 48*(1), 106-132. https://doi.org/10.1177/1741143218781064

Thompson, N. (2018). *Avoiding a pilot retention death spiral: The pilot shortage and DOD's challenge to maintain an effective fighting force*. [Master's thesis, Joint Forces Staff College]. Defense Technical Information Center.

Tian, M., Risku, M., & Collin, K. (2016). A meta-analysis of distributed leadership from 2002 to 2013: Theory development, empirical evidence and future research focus. *Educational*

Management Administration & Leadership, 44(1), 146-164. https://doi.org/10.1177%2F1741143214558576

Tickle, B. R., Chang, M., & Kim, S. (2011). Administrative support and its mediating effect on US public school teachers. *Teaching and Teacher Education, 27*(2), 342-349. https://doi.org/10.1016/j.tate.2010.09.002

Torres, D. G. (2019). Distributed leadership, professional collaboration, and teachers' job satisfaction in US schools. *Teaching and Teacher Education, 79*, 111-123. https://doi.org/10.1016/j.tate.2018.12.001

Treviño, L. K., Hartman, L. P., & Brown, M. (2000). Moral person and moral manager: How executives develop a reputation for ethical leadership. *California Management Review, 42*(4), 128-142. https://doi.org/10.2307/41166057

United States Air Force. (2005). The U.S. Air Force remotely piloted aircraft and unmanned aerial vehicle strategic vision. *U.S. Air Force Research, 1,* 1-34.

United States Air Force. (2009). *Unmanned aircraft systems flight plan 2009-2047.* https://fas.org/irp/program/collect/uas_2009.pdf

United States Air Force. (2015, September 23rd). MQ-9 Reaper. https://www.af.mil/About-Us/Fact-Sheets/Display/Article/104470/mq-9-reaper/

United States Army. (2021a). *FM 7-0: Training*. Headquarters, Department of the Army. https://armypubs.army.mil/epubs/DR_pubs/DR_a/ARN32648-FM_7-0-000-WEB-1.pdf

United States Army. (2021b, September 10). *Army Aviation*. https://www.goarmy.com/careers-and-jobs/specialty-careers/aviation.html

United States Department of Defense. (2020). *Agency financial report: Fiscal year 2020*. https://comptroller.defense.gov/Portals/45/Documents/afr/fy2020/DoD_FY20_Agency_Financial_Report.pdf

United States Government Accountability Office. (2005). *Unmanned aerial vehicles: Improved strategic and acquisition planning can help address emerging challenges.* *https://www.gao.gov/products/GAO-05-395T*

United States Government Accountability Office. (2017). *Military compensation: Additional actions are needed to better manage special and incentive pay programs.* https://www.gao.gov/products/gao-17-39

United States Government Accountability Office. (2020). *Unmanned aerial systems: Air Force should take additional steps to improve aircrew staffing and support.* https://www.gao.gov/products/GAO-20-320

Vagle, M. D. (2014). *Crafting phenomenological research*. Routledge

Van Eerde, W., & Thierry, H. (1996). Vroom's expectancy models and work-related criteria: A meta-analysis. *Journal of Applied Psychology, 81*(5), 575-586. https://doi.org/10.1037/0021-9010.81.5.575

Van Manen, M. (2015). *Researching lived experience: Human science for an action sensitive Pedagogy* (2nd ed.). SUNY

Van Manen, M. (2016). *Phenomenology of practice: Meaning-giving methods in phenomenological research and writing*. Routledge. https://doi.org/10.4324/9781315422657

Van Manen, M. (2017). But is it phenomenology? *Qualitative Health Research, 27*(6), 775–779. https://doi.org/doi:10.1177/1049732317699570

Van Rooij, B., & Fine, A. (2018). Toxic corporate culture: assessing organizational processes of deviancy. *Administrative Sciences, 8*(3), 23. https://doi.org/10.3390/admsci8030023

Vasterling, J. J., Proctor, S. P., Aslan, M., Ko, J., Jakupcak, M., Harte, C. B., Marx, B. P., & Concato, J. (2015). Military, demographic, and psychosocial predictors of military retention in enlisted army soldiers 12 months after deployment to Iraq. *Military Medicine, 180*(5), 524-532. https://doi.org/10.7205/MILMED-D-14-00468

Vong, L. T. N., Ngan, H. F. B., & Lo, P. C. P. (2018). Does organizational climate moderate the relationship between job stress and intent to stay? *Journal of Chinese Human Resource Management, 9*(10), 2-20. https://doi.org/10.1108/JCHRM-09-2017-0022

Vroom, V. H. (1964). *Work and motivation.* Jossey-Bass.

Waddell, C. D. (2019). United States Air Force officers' leadership style as a predictor of group potency. *ProQuest Dissertations Publishing*, 1-184.

Waitzkin, H., Cruz, M., Shuey, B., Smithers, D., Muncy, L., & Noble, M. (2018). Military personnel who seek health and mental health services outside the military. *Military Medicine, 183*(5-6), 232-240. https://doi.org/10.1093/milmed/usx051

Wall, T. D., & Stephenson, G. M. (1970). Herzberg's two-factor theory of job attitudes: A critical evaluation and some fresh evidence. *Industrial Relations Journal, 1*(3), (41-65). https://doi.org/10.1111/j.1468-2338.1970.tb00262.x

Walters, G. (2016). Educational Success and Surrounding Culture. *New Directions for Teaching and Learning, 2016*(145), 25-32. https://doi.org/10.1002/tl.20171

Wang, D., Waldman, D. A., & Zhang, Z. (2014). A meta-analysis of shared leadership and team effectiveness. *Journal of Applied Psychology, 99*(2), 181-198, https://doi.org/10.1037/a0034531.

Warner, J. T. (1981). *Military compensation and retention: An analysis of alternative models and a simulation of a new retention model*. Center for Naval Analyses. https://doi.org/10.21236/ADA105468

Whaley, T. (2021, April 1). *Talent Marketplace developing a Total Force 'One-Stop-Shop' assignment platform*. Air Force's Personnel Center. https://www.afpc.af.mil/News/Article-Display/Article/2557914/talent-marketplace-developing-a-total-force-one-stop-shop-assignment-platform/

Wheelan, S. A. (2021). *Creating effective teams: A guide for members and leaders*. Sage Publications.

Wilcove, G. L., Burch, R. L., Conroy, A. M., & Bruce, R. A. (1991). Officer career development: A review of the civilian and military research literature on turnover and retention. *Navy Personnel Research and Development Center,* 1-55.

Williams, C. H., & Alshahrani, S. (2017). Organisational commitment and transformational leadership in different contexts: Strong and complex relationship as reflected in the literature. *International Journal of Business and Management Studies, 6*(1), 295-314.

Wilson, A. (2015). A guide to phenomenological research. *Nursing Standard*, *29*(34), 38-43. https://doi.org/10.7748/ns.29.34.38.e8821

Wilson, P. H. (2008). Defining military culture. *The Journal of Military History*, *72*(1), 11-41. http://doi.org/10.1353/jmh.2008.0041

Winnefeld, J. A., & Kendall, F. (2013). *Unmanned systems integrated roadmap 2013-2038*. Department of Defense. http://archive.defense.gov/pubs/dod-usrm-2013.pdf

Worth, J., & Van den Brande, J. (2020). Teacher autonomy: How does it relate to job satisfaction and retention? *National Foundation for Educational Research.*

Wright, P. J., Kim, P. Y., Wilk, J. E., & Thomas, J. L. (2012). The effects of mental health symptoms and organizational climate on intent to leave the military among combat veterans. *Military Medicine, 177*(7), 773-779. https://doi.org/10.7205/MILMED-D-11-00403

Yang, R. (2016). Toxic academic culture in East Asia. *International Higher Education*, 84, 15-16. https://doi.org/10.6017/ihe.2016.84.9112

Yüksel, P., & Yildirim, S. (2015). Theoretical frameworks, methods, and procedures for conducting phenomenological studies in educational settings. *Turkish Online Journal of Qualitative Inquiry, 6*(1), 1-20. https://doi.org/10.17569/tojqi.59813

Zaharee, M., Lipkie, T., Mehlman, S. K., & Neylon, S. K. (2018). Recruitment and retention of early-career technical talent. *Research-Technology Management, 61*(5), 51-61. https://doi.org/10.1080/08956308.2018.1495966

Zaleski, K. (2015). *Understanding and treating military sexual trauma*. Springer Publishing. https://doi.org/10.1007/978-3-319-16607-0

Zhang, M., Bai, Y., & Li, Z. (2020). Effect of resilience on the mental health of special education teachers: Moderating effect of teaching barriers. *Psychology Research and Behavior Management, 13*, 537. https://dx.doi.org/10.2147%2FPRBM.S257842

APPENDIX A: IRB Approval Letter

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

October 6, 2021

Isabelle Perry
Laura Jones

Re: IRB Exemption - IRB-FY21-22-203 ATTRITION IN UNITED STATES AIR FORCE MQ-9 INSTRUCTOR PILOTS: A TRANSCENDENTAL PHENOMENOLOGICAL STUDY

Dear Isabelle Perry, Laura Jones,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:
The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,
G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

APPENDIX B: Consent Form

Title of the Project: Attrition in United States Air Force MQ-9 Instructor Pilots: A Transcendental Phenomenological Study

Principal Investigator: Isabelle Perry, Doctoral Candidate, Liberty University, MQ-9 Instructor Pilot, USAF

Invitation to be Part of a Research Study

You are invited to participate in a research study. In order to participate, you must be an active-duty Air Force MQ-9 instructor pilot at the MQ-9 Formal Training Unit, be within one year of separation, and have chosen to terminate your military career. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research project.

What is the study about and why is it being done?

The purpose of this transcendental phenomenology was to describe the shared experiences of MQ-9 instructor pilots who were considering discontinuing military service at the USAF's MQ-9 FTU.

What will happen if you take part in this study?

If you agree to be in this study, I would ask you to do the following things:

1. Take part in a one-on-one interview that will take approximately one hour. The interview will be conducted either in person or via electronic means and be audio and video recorded.
2. Respond in writing to a prompt that asks you to write a letter to a future hypothetical MQ-9 pilot. This should consist of a few paragraphs and take approximately 30-60 minutes.
3. Take part in one focus group session that will take approximately one hour. The focus group will be conducted either in person or via electronic means and be audio and video recorded.
4. Review your interview and focus group transcripts to ensure their accuracy and indicate your approval within two weeks of interview and focus group completion. This will take approximately 30 minutes.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include providing the Air Force's bases and squadrons with a better understanding of how to compensate, treat, and retain Air Force MQ-9 instructor pilots who have chosen to terminate their career.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life

How will personal information be protected?

The records of this study will be kept private. Any published reports will not include information that will cause participants to be identified. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be kept confidential through the use of pseudonyms, and interviews will be conducted in an off-site location where others will not easily overhear the conversation.
- Data will be stored on a password-locked computer and may be used in future presentations. Any physical notes or documents will be stored in a locked file cabinet that only the researcher will have access to. After three years, all electronic records will be deleted. Hard copy data will be shredded.
- Interviews and focus groups will be recorded and transcribed. Recordings will be stored on a password locked computer for three years and then erased. Only the researcher will have access to these recordings.
- Confidentiality cannot be guaranteed in focus group settings. While discouraged, other members of the focus group may share what was discussed with persons outside of the group.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University or the United States Air Force. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please contact the researcher at the email address included in the next paragraph. Should you choose to withdraw, data collected from you, apart from focus group data, will be destroyed immediately and will not be included in this study. Focus group data will not be destroyed, but your contributions to the focus group will not be included in the study if you choose to withdraw.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Isabelle Perry. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her. You may also contact the researcher's faculty sponsor, Dr. Laura Jones.

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

☐ The researcher has my permission to audio-record/video-record me as part of my participation in this study.

_____
Printed Subject Name

_____
Signature & Date

APPENDIX C: Electronic Recruitment Letter

Dear MQ-9 Instructor Pilot:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a doctoral degree. The purpose of my research is to describe the shared experiences of MQ-9 instructor pilots who are considering discontinuing military service at the USAF's MQ-9 FTU and I am writing to invite eligible participants to join my study.

Participants must be active duty MQ-9 instructor pilots who are located at the MQ-9 Formal Training Unit, are within one year of military separation, and have chosen to terminate their career. Participants, if willing, will be asked to complete a one-on-one interview (1 hour), a writing prompt (45 minutes), a focus group (1 hour), and verify the validity of the written transcription of their audio recorded comments (30 minutes). Names and other identifying information will be requested as part of this study, but the information will remain confidential.

To participate, please contact me at [redacted] to confirm that you are within one year of separation, confirm that you intend to terminate your military career, and to schedule an interview.

A consent document is attached to this email. The consent document contains additional information about my research. If you choose to participate, you will need to sign the consent document and return it electronically with your response to this email.

Sincerely,

Isabelle Perry

Doctoral Candidate, Liberty University

[redacted]

APPENDIX D: Leadership Permission Request

MQ-9 FTU Wing Commander,

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a doctoral degree. The title of my research project is Attrition in United States Air Force MQ-9 Instructor Pilots: A Transcendental Phenomenological Study, and the purpose of my research is to describe the shared experiences of MQ-9 instructor pilots who are considering discontinuing military service at the USAF's MQ-9 FTU.

I am writing to request your permission to contact members of your organization to invite them to participate in my research study.

Participants will be asked to contact me to schedule an interview, complete a writing prompt, and participate in a recorded interview and focus group. Participants will be able to review their transcripts. Participants will be presented with informed consent information before participating. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, respond by email.

Sincerely,

Isabelle Perry

Doctoral Candidate, Liberty University

APPENDIX E: Protocol Writing Prompt

Protocol Writing Prompt

Based on your experiences throughout your career in the MQ-9 community, what advice would you give to MQ-9 pilots just starting their careers? What stories or examples would you share with them to prepare them for the challenges that they may experience? Would you recommend they do things similarly or differently than you did in your career, and what would you recommend? Who would you recommend that they look to for guidance during their career?

While considering these questions, think of concrete examples of memories where you experienced both positive and negative experiences in the MQ-9 community. Consider not only yourself but also your family and their involvement in your career as you answer this prompt. Provide two paragraphs at a minimum that include examples or advice that you would have liked to have received prior to where you are in your career today. Please do not include your name anywhere in your writing, and do not sign the document in order to protect your confidentiality.

APPENDIX F: Protocol Writing Prompt Sample

Sample Response from Instructor Pilot 3

Given the opportunity to speak with brand new MQ-9 pilots I would encourage them to take a long and objective look at how the nature of this career field will impact them and their relationships. Shift work, death, morality, and a healthy way of preparing for the transition from flying above a war zone to interacting with loved ones at home should all be considered well before your first combat mission. I can remember distinctly each and every strike I took part in but what was less clear to me until years later was the massive impact it had on me mentally, and on my relationships with loved ones. Introspection is an invaluable tool that I encourage all future pilots to practice. Understand how you react to great stress and communicate that with those around you. Establish a support system of trusted friends and family who truly understand what you are going through and can hold you accountable if you begin to feel the weight of your responsibility and actions.

Beyond themselves and their support system, I would encourage them to make their own decisions on seeking mental health care and not to trust the stigmatized and oftentimes incorrect word of mouth advice that plagues the MQ-9 community. Simply put, your command cannot and will not punish you for seeking mental health care on or off base. Understand what triggers a grounding event in the medical community and wield that knowledge to take your care into your own hands. While you signed many of your rights away when you joined the military you are not powerless in the face of mental health challenges. Additionally use the many resources the military does provide to get the answers you don’t know. Ask about who on base can give

confidentiality during counsel and utilize them heavily when the need arises. Look to the VA and Wounded Warrior if you find yourself unable to get the care you desire on base.

While the community as a whole is gradually becoming healthier it will not fix itself overnight. If these future pilots, like me, find themselves needing to utilize these services but frustrated at the roadblocks and misinformation surrounding them I would encourage them to become an advocate. Share the knowledge you gained with those around you who could also benefit from it. Learn the value of transparency and separate it from feelings of weakness or oversharing. Your willingness to communicate your experiences to others may very well save a life one day. At the very least doing so is a small, but important step to improving the overall health of the MQ-9 community.

APPENDIX G: Individual Interview Questions

Individual Interview Questions

1. Please introduce yourself to me as if we just met one another.
2. Please walk me through your USAF MQ-9 career thus far.
3. Of those experiences that you identified in your MQ-9 career, which would you say were the most significant?
4. What made them significant?
5. What else would you like to add to your timeline that has not yet been captured?
6. In what ways have the experiences in your MQ-9 career influenced your life thus far? (CQ)
7. What is the main influence behind your decision to terminate your MQ-9 career? (CQ)
8. How has your MQ-9 career affected your future professional endeavors (i.e., education, career, etc.?) (CQ)
9. If applicable, how has a personal or second-hand experience of discrimination, harassment, or intolerance in your MQ-9 career influenced your decision to terminate your military career? (CQ)
10. If applicable, how has the difference between your current compensation and that of your civilian counterparts influenced your career decision-making? (SQ1)
11. If applicable, how has a career-field based monetary re-signing bonus influenced your career decision-making? (SQ1)
12. How does the time off you receive from work compare to your civilian counterparts? (SQ2/3)

13. How often do you feel burdened by the need to bring work home with you or tend to work-related problems outside of the duty day? (SQ3)
14. How has your workload over the course of your MQ-9 career influenced your decision to terminate your career? (SQ3)
15. How does your family feel about your MQ-9 career? (SQ2)
16. How does the time away from your family during deployments, temporary duty, etc. affect your family? (SQ2/3)
17. How has the possibility of deploying influenced your decision to terminate your career? (SQ2/3)
18. How has your mental health been influenced by your MQ-9 career? (SQ2/3)
19. How has leadership over the course of your MQ-9 career influenced your decision to terminate your career? (SQ3)
20. What other factors positively or negatively influenced your decision to terminate your career? (SQ1-3)
21. What other information would you like to be considered in the development of this research?

APPENDIX H: Focus Group Questions

Focus Group Questions:

1. What has been the greatest influence on your decision to terminate your career?
2. How would your family describe your MQ-9 career?
3. How has your workload influenced your decision to terminate your career?
4. How have your leader's actions influenced your decision to terminate your career?
5. How has income influenced your decision to terminate your career?
6. How, if at all, do you believe that your mental health has been affected by your military career?
7. What other factors not mentioned previously are influencing your decision to leave the USAF?