INVESTIGATING THE PREDICTIVE RELATIONSHIPS BETWEEN TRAUMA AND PERSECUTION AND ACADEMIC MOTIVATION WITH FEMALE AFGHAN HIGH SCHOOL STUDENTS: A CORRELATIONAL STUDY

by

Gary Thomas

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

The purpose of this quantitative, non-experimental, predictive correlation study was to determine if there is a predictive relationship between academic motivation and the linear combination of trauma and persecution of Afghanistan female high school students. The study sample of 119 female students was drawn from two underground high schools in Afghanistan in the grades of 10-12, aged 16-20. Instruments included the Academic Motivation Scale, the Child Post-Traumatic Cognitive Inventory, and the Persecution and Deservedness Scale. A multiple linear regression analysis was applied to assess how well the criterion variable (academic motivation) was predicted using the whole set of predictor variables (trauma and persecution), as well the predictive value of each predictor variable when the other predictor variable is controlled. Findings of the study did not show a significant correlation between the linear combination of trauma and persecution and academic motivation, however coefficient analysis suggested relationships between each of the predictor variables and the criterion variable when examined independently. As trauma increased so did motivation; as persecution increased, motivation decreased. There was also a finding of significant clinical PTSD symptomology in 86% of the sample, well above rates found in Western student populations. Also, despite the high PTSD rate, as well as high persecutory thought rates, academic motivation was commensurate with that found among students in studies in non-conflict countries, consistent with resiliency and self-determination theory. By examining the impact of trauma and persecution on the academic motivation of female high school Afghan students, the study has added to the limited body of knowledge of how children respond to extremely adverse circumstances, and how that might be applied in helping them succeed, as well as providing a foundation for further study.

Keywords: persecution, trauma, academic motivation, resiliency, self-determination.

Dedication

To my wife, Elaine, genuinely a Proverbs 31 wife of noble character, worth far more than rubies. She is also longsuffering, patiently and prayerfully putting up with me and my 20 years of traveling into Afghanistan. I am truly blessed.

Acknowledgments

I want to sincerely offer my gratitude for the encouragement, wisdom, and invaluable guidance I received from my chair, Dr. Lunde, as well as my committee member, Dr. Capwell-Geary, as well as my professors over the last couple of years as my dissertation picked up momentum to completion. It was a long haul, and I couldn't have done it without their help. I also want to acknowledge my team on the ground in Afghanistan; they are believers that are directly on the front lines with the enemy, and despite working in extremely adverse conditions they were instrumental in getting this study off the ground. Their faith and courage are truly inspiring.

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List of Abbreviations

Academic Motivation Scale (AMC)

Afghanistan National Education Strategic Plan (NESP)

Analysis of Variance (ANOVA)

Basic Psychological Needs Theory (BPNT)

Causality Orientation Theory (COT)

Child Post-Traumatic Cognitions Inventory (CPTCI)

Cognitive Evaluation Theory (CET)

Communication Theory of Resiliency (CTR)

Diagnostic and Statistical Manual of Mental Health Disorders- Fifth Edition (DSM-5)

Goal Content Theory (GCT)

Gross Domestic Product (GDP)

Institutional Review Board (IRB)

Non-Governmental Organization (NGO)

Organismic Integration Theory (OIT)

Persecution and Deservedness Scale (PADS)

Post-Traumatic Cognitions Inventory (PTCI)

Post-Traumatic Stress Disorder (PTSD)

Self-Determination Theory (SDT)

Statistical Package for the Social Sciences (SPSS)

United Nations Educational, Scientific and Cultural Organization (UNESCO)

United Nations High Commissioner for Refugees (UNHCR)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this quantitative, non-experimental, predictive correlation study is to determine if there is a predictive relationship between academic motivation and the linear combination of trauma and persecution on Afghanistan female high school students. The background of the topic, the problem statement, the purpose and the significance of the study, research question and definitions are provided in Chapter One.

Background

Despite the decades-long war in Afghanistan, traditional cultural gender persecution, and the Taliban's oppressive policies regarding female high school students and education that are condemned globally, there is little information available in the literature on the impact of war trauma and persecution on Afghan female high school students (Akbari & True, 2022; Kovess-Masfety et al., 2023). Primary and secondary students in Afghanistan today have never known life without war. Along with endemic violence and death, much of the country's civil, economic, and school system infrastructure and function have been destroyed or degraded during their lifetime (Akbari & True, 2022; Kovess-Masfety et al., 2023). Traditional Muslim patriarchal oppression of women has historically impacted access to education, and continues, particularly in rural areas (Afghanistan Ministry of Education (MOE), 2017; Burde and Linden, 2013; NESP, 2017; Shayan, 2015; UNESCO, 2015). The current gender persecution and violence, threats of violence, and denial of education these girls suffer by the Taliban are unique in the world; no other country, to include other Muslim countries, perpetrates such tyranny (Akbari & True, 2022; Razia, 2023). As of April 2023, 1.1 million high school-aged Afghan young women, and 80% of Afghan girls and young women of any school age were out of school (UNESCO, 2023).

Historical Overview

A review of the available literature reveals two major areas of relevance in gaining insight into the challenges faced by and resilience of Afghan female high school students with respect to education: war trauma and persecution. Afghanistan has been at war constantly for decades; primary and secondary students in Afghanistan today have never known a life without war. Along with endemic violence and death, much of the country's civil, economic, and school system infrastructure and function have been destroyed or degraded (Akbari & True, 2022; Kovess-Masfety et al., 2023). The consequences of school student exposure to the combat environment extend beyond direct war-related events such as bombings, shootings, and death, to extreme poverty and hardship as a result of armed conflict (Darwish & Wotipka, 2022; Kovess-Masfety et al.). Continuing war and violence in Afghanistan, the August 2021 collapse of the Afghanistan government and resulting humanitarian catastrophe, and current Taliban oppressive policies have resulted in major disruptions in education, particularly for Afghan female high school students. As of April 2023, 1.1 million high school-aged Afghan young women, and 80% of Afghan girls and young women of any school age were out of school (UNESCO, 2023).

Gender persecution, as witnessed by both traditional cultural influence and the Taliban's current ban on female students attending high school and college (Akbari & True, 2022; Razia, 2023), has a significant impact not only on the hopes and mental well-being of these students but on their families and the economic health of their community, as well as the country as a whole (Akbari & True, 2022; United Nations Development Program in Afghanistan, 2023). Research notes numerous historical cultural challenges faced by female students at both primary and secondary levels in rural villages, notably a dominant patriarchal society and traditional views of the roles of women, poverty and the need for females to stay home and work, reluctance of

parents to allow sons and daughters to walk the often long distances to school, early marriages and childbirth, lack of facilities for females, and widespread insecurity, among others (Afghanistan Ministry of Education [MOE], 2017; Burde & Linden, 2013; NESP, 2017; Shayan, 2015; UNESCO, 2015).

In addition to religious and cultural persecution, the trauma of a war zone affects school students. In their study on the impact of war trauma on a sample of 1,850 primary and secondary school students in the Gaza Strip following a prolonged period of war violence, Manzanero et al. (2021) found that the students demonstrated a much higher incidence of PTSD than that found in the general population and that traumatic symptoms manifested more in older children, possibly as a result of more prolonged exposure over time and a deeper understanding of the reaching implications of war violence. Manzanero et al., however, noted resilience in effective coping strategies and problem-solving abilities, and positive family support.

Studies on the effect of war on children across many settings for the most part though are not empirically based and have delivered conflicting results; most focus on the deleterious effects of post-traumatic stress disorder (PTSD) as a predominant outcome, while at the same time, there are published studies indicating children develop healthy resilience and self-efficacy, thus the call for further study on this population (Kovess-Masfety et al., 2023; Veronese & Pepe, 2020; Veronese et al., 2021). In their study on Palestinian children experiencing severe war trauma, Veronese and Pepe found that perceived satisfaction with family and school served to distinguish children who were not clinically referred for mental health issues from those that were, in a population of children who had been exposed to war trauma. In a study on the resiliency of Syrian children exposed to severe war trauma, Veronese et al. (2021) found similar results with

children that demonstrated competent pro-social behavior having higher levels of resilience than children that did not.

War and civil unrest are associated with mental health issues, particularly with school-aged children (Kovess-Masfety et al., 2023). In their study of over 4000 households across Afghanistan, Kovess-Masfety et al. found Afghan children presented more than double the percentage of mental health problems than their peers across other regions in the world, to include high conflict middle eastern countries. However, they also found that school attendance was associated with lower rates of emotional problems, serving as protection from the trauma around the children. Further work needs to be done, particularly in remote, rural areas in the country, of which there are many, as well as further research on protective factors from trauma for Afghan girls (Kovess-Masfety et al., 2023). Of significance here is also the impact of Taliban policy of education denial for high school girls following the recent fall of the Afghanistan government to the Taliban.

Despite the decades-long war in Afghanistan, historical cultural influence, and the worldwide condemnation of the Taliban's oppressive policies regarding female high school students and education, there is little information available in the literature on the impact of war trauma and gender persecution on this population (Akbari & True, 2022; Kovess-Masfety et al., 2023). Due to limited access in high conflict areas to school children exposed to war trauma and persecution, additional study is needed to understand their plight more comprehensively (Kovess-Masfety et al., 2023; Veronese & Pepe, 2020). Further examination will add to the limited body of knowledge regarding this oppressed and vulnerable population.

Society-at-Large

Importantly, for women in an oppressive culture, autonomy as empowerment is critical to their emancipation and psychological well-being (Ryan & Deci, 2017, 2020). Understanding the social, cultural, and psychological influences driving the motivation or suppression of this population to challenge and overcome unique, severe trauma and persecution and education denial is important in not only bolstering their own self-confidence and academic successes, it gives them a voice, and potentially serves as a catalyst for policy reform, and further needed research in the study of the systemic persecution of women and girls (Akbari & True, 2022; Kovess-Masfety et al., 2023). While research in understanding the social, cultural, and psychological influences on the academic motivation of students in non-conflict settings has been extensive, further research is needed in examining such influences on motivation in severely persecuted populations in conflict countries such as Afghanistan. Research suggests that resiliency to adverse conditions such as experienced by school children in Afghanistan, bolstered by community-social support in that hostile environment, can be applied to other parts of the world (Veronese et al., 2021). By also bringing to light that misogynistic patriarchal environments that restrict the potential of girls obtaining an education are harmful to community, regional and national economic health, there may be an impact on policymaking at those levels, not only in Afghanistan but also in countries with similar restrictions (Shayan, 2015).

Directly accessing this population and investigating and understanding the complex relationships between trauma and persecution, and academic motivation, will add to the body of knowledge in an identified gap in the literature (Kovess-Masfety et al., 2023). Research should continue concerning Afghan students living in dangerous areas, which can be incorporated into national mental health strategies (Kovess-Masfety et al., 2023), while serving as models for other

conflict countries. In addition to potentially aiding in emancipating and supporting Afghan women and girls both locally and nationally given the dangerous environment they live in, and inspiring countless others, the study also provides a foundation for additional work relevant to similar populations in other conflict countries, and ultimately to persecuted women and girls across the globe.

Theoretical Background

The academic resiliency of Afghan high school girls in the face of severe trauma and persecution (Kovess-Masfety et al., 2023), in the context of this study, is examined through the lenses of resiliency theory and self-determination theory (SDT). Researchers have explored resiliency theory in other populations facing a wide range of adversarial conditions, as well as exploring academic performance in light of self-determination theory. Resiliency theory reflects a dynamic combination of factors that facilitate positive adaptation to adverse life experiences (Truffino, 2010). The core principle of resiliency is described as the ability to establish and maintain functional competence despite interfering emotional factors (Bekhet, 2023; Garmezy, 1991; Kobiske & Bekhet, 2018). SDT, as demonstrated by extensive research and application in a wide range of settings, examines how political, social, and cultural conditions impact personal, social, and psychological growth as well as overall wellness (Guay, 2022; Ryan & Deci, 2017, 2020). The underlying premise is that all humans are born proactive and have natural tendencies to overcome challenges while seeking to interact with others in understanding their environment. By identifying and measuring motivational regulation SDT has been effectively applied to students in a range of settings, including the classroom; SDT additionally measures social contexts with regard to students thriving in education settings, as well as providing insights as

they relate to cultural, political, and economic influences on the student's academic motivation and progress (Guay; Ryan & Deci).

Problem Statement

In Afghanistan, the Taliban has banned female students from attending school past the sixth grade, the only country in the world to do so, while implementing by policy and edict encompassing persecution of women and girls already suffering from significant trauma, violence and poverty following decades of war and persecution (Razia, 2023; Tan & Ineli-Ciger, 2023). Saleem et al. (2021) report that 85% of all Afghans have experienced or witnessed a traumatic event, with the average being four events, that indirect mental health ramifications stemming from combat violence is likely significant and currently indeterminate and in dire need of attention. There is a paucity of literature describing the impact of trauma and persecution more specifically on children and education in Afghanistan and in conflict countries around the world (Kovess-Masfety et al., 2023; Veronese & Pepe, 2020). Limited studies on the effect of war and trauma on school students across many settings for the most part is not empirically based and have delivered conflicting results; most focus on the deleterious effects of post-traumatic stress disorder (PTSD) as a predominant outcome, while at the same time, there are published studies indicating students develop healthy resilience and self-efficacy (Kovess-Masfety et al., 2023; Veronese & Pepe, 2020; Veronese et al., 2021).

Literature related to the impact of trauma and persecution in general on school students in conflict areas is limited, and inconclusive primarily due to the limited access to the dangerous areas in which these students live (Catani et al., 2009); further research on the adverse conditions faced by school students in a conflict country such as Afghanistan is needed (Kovess-Masfety et al., 2023). Jewkes et al. (2018) report that four decades of war-related conflict and longstanding

patriarchal cultural persecution has had an indelible impact on Afghan women and girls; conflict trauma has been a central and common experience for them and understanding its impact on their lives is critical. Further research is essential in establishing an intervention platform to address their social, emotional and educational needs (Jewkes et al., 2018). Veronese and Pepe (2020) found that research investigating the impact of war and violence on school children is limited and often contradictory and further research is needed, despite the constraining factors of limited access and risk for both researchers and participants due to inherent violence and restrictive cultural influences in conflict areas (Tan & Ineli-Ciger, 2023). The problem is that the literature has not fully addressed the impact of trauma and persecution on the academic motivation of high school female students in Afghanistan.

Purpose Statement

The purpose of this quantitative, non-experimental, predictive correlation study is to determine if there is a predictive relationship between academic motivation and the linear combination of trauma and persecution on Afghanistan female high school students. The criterion variable of academic motivation is defined through the lens of self-determination theory, and stems from the innate psychological need for competence and self-determination; it is the source of behaviors that drive curiosity, persistence, learning and success or failure in an academic environment and includes intrinsic and extrinsic motivation as well as amotivation. (Vallerand et al., 1992). The predictor variable of trauma is defined as transient or chronic distress following a significant, threatening event (Meiser-Stedman et al., 2009). The predictor variable of persecution is defined as the thought process resulting from feeling at risk or threatened by others (Melo et al., 2009). The population sample includes 119 Afghan female high school students, aged 16-20 years-old, currently attending underground high schools in rural

Afghanistan. The age of majority in Afghanistan is sixteen. The ethnicity of the participants is 100% Afghan, of the Hazara tribe, with Dari as the primary language spoken, though the sample will be composed of young women who speak and read English as most students this age in this region are bilingual.

Significance of the Study

Kovess-Masfety et al. (2023) investigated children in Afghanistan living in dangerous areas having been exposed to war trauma and cultural oppression and their mental health, and the association of their mental health and school attendance. Finding that children attending school fared better than those with limited attendance, the study made a strong call for further research regarding this vulnerable population facing extreme adversity and the protective factors of education and schools. Veronese and Pepe (2020) and Veronese et al. (2021) examined resiliency among Syrian and Gaza Strip children, respectfully, having been exposed to intense war trauma and violence as well as disruptive education. They found higher levels of resiliency factors associated with prosocial behavior such as found in school environments and self-reporting of school as a protective factor. Findings also included that interventions aimed at increasing social competency may help reduce trauma symptoms in children. Veronese and Pepe call for additional study regarding resiliency and relational factors among school children facing war trauma and violence. Shayan (2015) qualitatively examined the discrimination of girls regarding education in Afghanistan and the factors involved, to include Taliban oppression of rights, and traditional cultural persecution. The study calls for further research and greater awareness of the impact of a fundamentalist patriarchal society on education access for girls. Bamik (2018) likewise found that the cultural norms evident in the conservative, patriarchal society in Afghanistan presents a greater challenge for girls accessing education than poverty and

insecurity, as well as with working outside the home, leaving girls and women marginalized. The study calls for more research to help facilitate the transformation of cultural norms toward what would better benefit this society. Najibi and McLachlan (2023), in their study examining a sustainable future through education for Afghanistan women, found that investing in women's education can transform communities as well as the country, leading to greater economic growth and prosperity; the study calls for more research into both obstacles and enabling factors.

Additionally, the recent collapse of the Afghanistan government and resulting humanitarian catastrophe and current Taliban oppressive policies have resulted in major disruptions in education, particularly for Afghan girls. Gender persecution, as witnessed by the Taliban's current ban on girls attending high school and college, has a significant impact not only on the hopes and mental well-being of girls but on their families and the economic health of their community as well as the country as a whole (Akbari & True, 2022; United Nations Development Program in Afghanistan, 2023). The Afghanistan GDP declined by 3.6% in 2022 after a 20% decline in 2021; it is doubtful the economy will revitalize if women cannot work, and there continues to be no investment in the education of women and girls (United Nations Development Program in Afghanistan).

The current study follows recent research conducted regarding the impact of trauma and persecution on Afghanistan female students as well as school students in similar conflict countries and their resiliency to those adverse conditions, particularly with regard to academic motivation and success. This study adds to the limited body of knowledge as called for by earlier researchers, due primarily to limited access to school students in violent war zones. Regardless of the environment, these are youth suffering under conditions over which they have no control, and their plight and path to success is as critical as any other child. By examining the impact of

trauma, and persecution on the academic motivation of female high school Afghan students, this study purports to bring to light an understanding of how children respond to extremely adverse circumstances and how that understanding might be applied in helping them succeed, individually and corporately, as well as providing a foundation for further study and application to children in similar circumstances. The study also addresses an oppressed population that has captured the world's attention, and it is hoped findings will give these young women a voice that can be heard beyond the limited scope of their homes and villages, potentially impacting both local and national policymaking as well as international influence, resulting in healing and hope for the young women and girls of Afghanistan, their community, and their country.

Research Question

RQ1: How accurately can academic motivation be predicted from a linear combination of trauma and persecution factors for Afghanistan female high school students?

Definitions

1. *Academic motivation* – Academic motivation is defined through the lens of self-determination theory, and stems from the innate psychological need for competence and self-determination; it is the source of behaviors that drive curiosity, persistence, learning and success or failure in an academic environment, whereby the student's interest is a determinant of school success, and is driven by intrinsic and extrinsic motivation as well as influenced by amotivational behavior (Ryan & Deci, 2020; Vallerand et al., 1993).
2. *Persecution* – Persecution is the state where an individual is felt to be at risk due to direct or implied actions stemming from the untrustworthiness and/or malice of others; the expectation of being negatively perceived or threatened by others (Melo et al., 2009).

3. *Resiliency Theory* – Resiliency theory reflects a dynamic combination of factors that facilitate positive adaptation to adverse life experiences (Truffino, 2010).
4. *SDT (Self-Determination Theory)* – SDT examines how political, social, and cultural conditions impact personal, social, and psychological growth as well as overall wellness (Ryan & Deci, 2017).
5. *Self-efficacy* – Self-efficacy is the belief in one's ability to plan and execute successfully a course of action to achieve objectives (Bandura, 1977)
6. *Taliban* – The Taliban are the de facto (unofficial) authorities in Afghanistan, by violent overthrow of the recognized Afghanistan government, resulting in dramatic social and economic upheaval, not recognized by any other country or the United Nations (United Nations Development Program in Afghanistan, 2023).
7. *Trauma* – Trauma is acute or chronic exposure to a traumatic or stressful event resulting in psychological distress. Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013); transient or chronic distress following a significant, threatening event (Meiser-Stedman et al., 2009)

CHAPTER TWO: LITERATURE REVIEW

Overview

The purpose of this literature review is to explore academic resiliency and self-determination among high school students facing significant adversity, and in particular the academic resiliency of Afghan female high school students in the face of trauma and persecution (Kovess-Masfety et al., 2023). The chapter opens with the theoretical framework. The study is grounded first in Garmezy's (1991) landmark studies of resiliency science. Also, Ryan and Deci's (2017) work with self-determination theory (SDT) serves as an additional foundation for the study, whereby SDT serves as a general framework for understanding a range of factors affecting student motivation in educational settings. Following will be a synthesis of literature examining the causal factors relevant to the trauma and persecution experienced by female Afghan high school students in Afghanistan, including historical and cultural factors, the monumental shift in the Afghanistan way of life brought about by the abrupt 2021 regime change, longstanding and current socio-political issues impacting education for girls in Afghanistan, and the risks faced by girls motivated to obtain an education in Afghanistan (Akbari & True, 2022). The potential impact on national and international policy and inspiration to others under persecution will also be discussed. The chapter ends with a summary.

Theoretical Framework

The academic motivation of Afghan high school girls in the face of severe trauma and persecution in the context of this study is examined through the lenses of resiliency theory and self-determination theory (SDT). Researchers have explored resiliency theory in student populations facing a wide range of adversarial conditions, as well as exploring academic performance in light of self-determination theory. The core principle of resiliency is described as

the ability to establish and maintain functional competence despite interfering emotional factors (Garmezy, 1991). In education, resiliency theory describes a student's ability to achieve despite barriers (Kobiske & Bekhet, 2018). SDT, as demonstrated by extensive research and application in education and other settings, examines how political, social, and cultural conditions impact personal, social, and psychological growth as well as overall wellness (Ryan & Deci, 2017).

This study seeks to explore the relationships between persecution and trauma and academic motivation of Afghan female high school students in furthering the understanding of how this little-studied population responds to such adversity in the educational setting (Kovess-Masfety et al., 2023; Razia, 2023). Specifically, the study seeks to add to the limited body of knowledge of the resiliency and individual motivation and determination to succeed of this population attempting to survive and thrive in the midst of chronic war and long-standing, severe persecution (Razia, 2023).

Resiliency Theory

The Project Competence Longitudinal Study (PCLS), the landmark study of resiliency science, initiated by Norman Garmezy at the University of Minnesota, established models, measurements, and the concepts of competence, protective factors, and patterns of resilience in the study of resilience over a period of more than 20 years (Masten & Telegen, 2012). Resiliency theory reflects a dynamic combination of factors that facilitate positive adaptation to adverse life experiences (Truffino, 2010); the core principle of resiliency is described as the ability to establish and maintain functional competence despite interfering emotional factors (Garmezy, 1991). Resiliency manifests consistently across several psychological profiles, including a sense of control over one's destiny, strong self-image and cognition, as well as expression of hope (Garmezy, 1991; Ryan & Deci, 2017). The above definitions- the ability to bounce back and

perhaps grow stronger following an adverse event- are all counted as elements of resiliency, but the concept is more complex, as Southwick et al. (2014) pointed out; resilience exists more on a continuum, as a process flow, with multiple factors impacting an individual student's response to adversity and hopefully achieving positive outcomes; determinants of resiliency such as social, biological, environmental, familial, and psychological factors interact across multiple domains such as time and place resulting in outcomes to stressful situations. In their study of 331 war-affected youth in Afghanistan, Panter-Brick et al. (2015) demonstrated that Afghan youth significantly channeled their recollection of trauma, forgetting or repressing traumatic events in the face of multiple daily stressors of violence, poverty and insecurity; they were able to differentiate trauma episodes and their ability to change their recollection of traumatic events enabled them as a group to attain a steady state of resilience, due to their level of and constant exposure to toxic events. Community and family also played a significant role as they were protected by their families whose protection developed in proportion to their violent environment (Panter-Brick et al., 2015).

As with most things in life, resilience is a process; it is not a unique phenomenon one has or does not have, but rather an evolving means to return to normalcy following a disruptive life event that is developed and sustained through communication, interaction with others and available resources (Buzzanell, 2010). In developing the communication theory of resiliency (CTR), Buzzanell (2010) describes several communicative processes essential to healthy resiliency: establishing normalcy, affirming personal identity markers- an individual's sense of self and place and role in their environment, employing an individual's communication networks, reframing situations so that they make sense to the individual, and minimizing negative thoughts while elevating positive ones, such as hopefulness; rather than dwelling on

what has happened, see ahead on what positive can follow. In building on CTR in their study on college students dealing with the COVID pandemic, King et al. (2023) viewed resiliency processes more holistically, that is transactional and multi-dimensional; an individual may incorporate individual strategies, but the external forces around them, that they are a part of, exert a resiliency influence on them, either negative or positive, e.g. family providing support or no support, a school providing a material means or resources to enable healthy coping.

In their work with hundreds of families in Afghanistan, including both adults and youth, Panter-Brick et al. (2015) found that family and cultural narratives shaped the understanding of individual and familial trauma, thus the response to it. Those families that were more resilient than others effectively utilized hope to make sense of and understand the meaning of their suffering to link the past with the future (Southwick et al., 2014).

In its simplest form, resiliency is the process of balancing adversity with positive adaptation, or mitigating risk through protective factors, which may include internal skills, self-confidence, cognitive ability, and external sources such as support from family and friends and social structures such as school or community organizations (Bekhet, 2023). In education, resiliency theory describes a student's ability to achieve despite barriers (Kobiske & Bekhet, 2018). In their study of high school and university students, Gerber et al. (2012) found that mental toughness effectively mitigated the psychological conditions of high stress and depression, with mental toughness described as having a sense of control, or being able to influence events around oneself, becoming involved rather than observing, and believing that change is normal and represents opportunity.

Afghan female high school students daily face war-related violence, gender persecution, and severe poverty (Darwish & Wotipka, 2022). Despite persecution, many women and girls

have taken to the streets to protest and advocate for their rights at the local, national, and international levels (Akbari & True, 2022). Despite Taliban policy enforcing education denial, many Afghan high school girls are attending secret and online schools (Dutta, 2023), which serve as a protective factor; in their study on the effect of conflict violence on high school students in Afghanistan, Kovess-Masfety et al. (2023) found a positive correlation between school attendance and a lower incidence of emotional problems for both boys and girls. Due to the 40 years of conflict in the country, and limited past and current access to this dangerous environment for researchers, there is very little in the literature on the plight of Afghan high school girls and their ability to effectively cope and mitigate extreme adversity. More research is needed to understand how and to what degree this population develops resilience in the face of such severe hardship (Kovess-Masfety et al., 2023).

Internal and External Variables of Resilience and Education

Understanding the nature of resilience requires examining a range of biological, social, psychological and cultural factors (Southwick et al., 2014). Additionally, Panter-Brick and Leckman (2013) discussed a paradigm shift in resilience research from viewing resiliency through the lens of understanding risk and vulnerability to enhancing strength and capability. The risk and vulnerability of Afghan female high school students is well understood considering decades of war and well-known cultural and Taliban persecution; less understood are the factors involved in their resiliency in the face of adversity- where how and to what degree by which they gather strength and develop capacity to survive and thrive in their environment.

Kronberg et al. (2018), in their study of 125 high school students, noted that while some children thrive with learning under adverse conditions, others do not, and have directed their research toward an individual's locus of control (an individual's sense they have control over

what they achieve) and both internal and external factors impacting their response to an adverse event or events, i.e. their resilient behavior, in an academic environment. Internal behavior such as sense of belonging and security, healthy self-esteem and sense of competence, and a sense of mastery over that which a student can control with a realistic understanding of that which they cannot contributes to resilience in an academic setting; external factors such as positive familial support and relationships, access to wider support in the community, and positive school experiences are also key to a student's level of resiliency (Kronberg et al., 2018). Further, Kronberg et al. found that students with a more internally focused locus of control were more resilient, though they note that external factors may contribute to stronger intrinsic motivation to succeed in a continuum of resilient behavior. Such findings have been noted with Afghan school children who have strong family support and positive school experiences to realize greater resilience than students with less external support (Kovess-Masfety et al., 2023; Shayan, 2015).

In their study of 161 university students aimed at determining whether previous adverse events, locus of control, academic delay of gratification, and age could predict resilience, Edwards et al. (2016) found that internal locus of control and a lack of adversity with parents were significant predictors of resiliency. Aliyev et al. (2021), in their study of university students to investigate the effects of internal and external factors on academic resilience, found that external factors such as security and a strong family structure were key elements in a student's resilient make-up and academic success, and that they predicted internal factors, to include self-efficacy and intrinsic academic motivation, essential to enable effective resiliency in the face of adversity toward academic success; viewed holistically, students with both an internal and external locus of control were more academically resilient that others.

Risk, Resource, and Process Factors and Resilience

The ecological protective factors of family, school, community, and relationships help to shield children from risk and provide a foundation of security, continuity, and well-being for children that enables resiliency in the face of adversity (Aliyev et al., 2021; Kovess-Masfety et al., 2023; Shayan, 2015). Fincham et al. (2009), in their study of 787 high school students, found that resiliency bolstered by positive family, school, and community relationships and experiences ameliorated risk factors of abuse and neglect among adolescents in developing PTSD symptoms, though were negligible with risk factors of traumatic community violence, adding that community violence may have been experienced more acutely, allowing less time to process. They recommend more research on violence exposure and resilience among adolescents.

Resilience can be defined as a process that develops across multiple modalities and over time; researchers seek to understand human behavior toward adversity as a continuum of risk and response (Panter-Brick & Leckman, 2013). In viewing resilience in a homogenous light, involving multiple factors, Stainton et al. (2018) describe resiliency as a dynamic process where individuals incorporate protective factors and resources in overcoming adversity toward well-being and success. They continued in describing the core components of resilience to include the presence of risk; the influence of protective factors to ameliorate the risk; and a more positive outcome than expected. Protective factors include a strong social network, family stability, self-esteem, quality of life, spirituality, purpose in life, early exposure to stress, which may have an immunizing effect, and cognitive performance; future research is recommended to identify how protective factors interact toward ameliorating risk (Stainton et al., 2018).

Internal resilience is integral to a student's wellbeing and academic performance; notable is that resilience research has moved away from describing resilience not as a trait, but rather as a process (Fullerton et al., 2021). In their study of 306 undergraduate students, Fullerton et al.

(2021) investigated how resilient resources interacted with responses to adverse events toward positive outcomes for individual students. In seeking to derive a conceptualization of such an integrated process, they found that resiliency resources, to include competence, mental toughness, and self-esteem, along with the coping process, to include strategies such as acceptance, planning and active coping, and positive outcomes, to include wellbeing, school success and physical health are best viewed as synergistically describing the overall resiliency process (Fullerton et al., 2021). Their findings indicated resources are directly related to coping processes such as positive thinking, problem-focused coping, and support-seeking, and negatively correlated with avoidance; regarding outcomes, the resource factor was a strong predictor of wellbeing; as their study however did not consider external resources such as social, cultural and environmental factors, those areas require further study in understanding the role of resilience in learning (Fullerton et al., 2021). Of interest is that an internal factor not considered as a (negative) resource was anxiety; in their study of 598 middle school and high school students in examining everyday academic resilience, Martin and Marsh (2008) found that of the significant predictors of resilience, anxiety explained the bulk of variance.

Self-Determination Theory

Self-Determination Theory (SDT) serves as a general conceptual framework for understanding a range of factors affecting student motivation in educational settings, as well as the overall psychological health of students (Ryan & Deci, 2020). The general theory, developed over the past 40 years out of early work done with intrinsic motivation by Richard Ryan and Albert Deci, has as its underlying premise that all humans are born proactive and have natural tendencies to overcome challenges while seeking to interact with others in understanding their environment (Ryan & Deci, 2017). By identifying and measuring motivational regulation SDT

has been effectively applied to students in a range of settings, including the classroom; SDT additionally measures social contexts with regard to students thriving in education settings, as well as providing insights as they relate to cultural, political, and economic influences on the student's academic motivation and progress (Ryan & Deci, 2017).

Specifically, in this regard, SDT demonstrates that intrinsic and autonomous (self-determined) extrinsic motivation leads to positive educational outcomes. Ryan and Deci (2020), in their SDT Taxonomy describe a continuum of motivation ranging from amotivation, or feelings of incompetence or nonrelevance, to extrinsic motivation, or positive or negative reinforcement, approval from others, and role of importance, to intrinsic motivation, or interest and self-satisfaction. The student's psychological needs for success, independence, and ability to effectively relate to their environment, and their self-perception of those factors correlate positively with academic motivation and accomplishment (Guay, 2022; Ryan & Deci, 2020). Taylor et al. (2014) found that intrinsic motivation consistently correlated with higher levels of performance, while Froiland and Worrell (2016) found predictive correlations between intrinsic motivation and greater student engagement and higher GPAs. Manganelli et al. (2019) found that autonomous extrinsic motivation was a reliable predictor of academic improvement.

SDT’s approach is primarily at the psychological level, whether in education or industry or other environments in understanding human behavior and motivation, where it examines motivation as a continuum, from intrinsic to extrinsic behavior (Ryan & Deci, 2017). The theory critically examines factors to include intrinsic, developmental, social and cultural factors that impact personal behavioral outcomes that flourish or struggle (Ryan & Deci, 2017).

Cognitive Evaluation Theory

General SDT theory consists of six mini-theories, considered foundational to the overall theory (Ryan & Deci, 2020). The first of the mini-theories is the Cognitive Evaluation Theory (CET), which examines intrinsic motivation as a basic and essential element of human nature, to include domains such as education, defined as a spontaneous response by individuals to the world around them as they interact and attempt to understand it and take control of it, with accompanying interest and with an outcome of enjoyment and/or sense of accomplishment; they see themselves as the source of their behavior (Ryan & Deci, 2019; Taylor et al., 2014). CET was developed to explore variations in intrinsic motivation, to include the observation that rewards, particularly monetary rewards, tended to decrease intrinsic motivation, while support for competence enhanced it; that is, while not all rewards inhibited intrinsic motivation, CET posits that any social factor that detracts from a sense of individual independence will inhibit intrinsic motivation, and that conversely social input that promulgates perceived autonomy, competence and relatedness will enhance intrinsic motivation (Ryan & Deci, 2019).

Organismic Integration Theory

The second of the mini-theories is described as the Organismic Integration Theory (OIT), which primarily addresses extrinsic motivation, which is delineated in two general forms: controlling and autonomous (Ryan & Deci, 2019). Controlling motivation can be characterized as coercive, reward-based or other external pressures, which are described by the mini-theory as external regulation- this type of motivation can be powerful but transient; Ryan and Deci (2019) also describe introjected regulation, another form of controlling motivation but generated by the individual in the form of a variety of unhealthy responses to include fluctuating self-worth and ego, and perfectionism, which present risk for wellbeing. Autonomous extrinsic motives include an individual internally striving toward goals they feel desirable despite personal hardship and

unenjoyable processes; examples may include sports training and writing doctoral dissertations. More sustainable than controlled motivation, individuals are guided by sense of purpose and achievement and will persist in the absence of other external supports; there is also an inherent tendency of people to move away from external support toward internalized autonomous self-regulation when they can (Ryan & Deci, 2019). Much like CET, internalized, autonomous behavior is facilitated by social feedback that supports perceptions of independence, competence, and relatedness; autonomous support can be a critical catalyst for student success and well-being when provided by teachers and parents to students (Guay, 2022; Ryan & Deci, 2019).

Basic Psychological Needs Theory

The third of the mini-theories is described as the Basic Psychological Needs Theory (BPNT); in examining how autonomy, competence and relatedness factors across studies related to higher levels of motivation, the recurrence of well-being as an outcome was noted; BPNT was developed to investigate the basic human need of well-being and thriving, and the precursors for those outcomes (Ryan & Deci, 2019). At its core the theory posits that when autonomy, competence and relatedness are satisfied then well-being results, while the inhibition of those factors can lead to negative outcomes, to include psychopathology (Ryan & Deci, 2019). Autonomy and relatedness have been linked across numerous studies to better cognitive and educational outcomes, and social competencies (Ryan & Deci, 2019). As an example, prior to the Taliban takeover in 2021 women had begun a gradual emancipatory process following the previous Taliban occupation of 1996-2021, where as a group empowerment toward autonomy and an improved internal sense of control developed, where they established new social roles and competencies, became literate, often becoming breadwinners for the family, with a resultant improved sense of positive perception of well-being (Razia, 2023; Trani et al., 2011). Another

basic tenet of BPNT is that it is applicable across all cultures in its description of basic needs leading to health and wellness, antecedents to internalization and motivation; however, SDT notes that how basic needs are managed across cultures varies, which is a much-needed area for further research (Ryan & Deci, 2019).

Causality Orientation Theory

The fourth mini theory, with origins in OIT and CET, was termed Causality Orientation Theory, which addressed individual differences, in that people differ in how they engage their circumstances based on context and individual temperament (Ryan & Deci, 2019). COT, applied to those differences seeks to explain the individual orientation people bring to the circumstances they face; these include autonomy orientation, controlled orientation, and impersonal orientation, among others, with most people having each of these orientations to differing degrees and contexts (Ryan & Deci, 2019).

Autonomy orientation is characterized by a greater focus on learning goals, and challenges as proactive opportunities for growth, greater flexibility, and with better coping mechanisms developed to handle challenges and crises (Ryan & Deci, 2019). In their study of Afghan undergraduate students, Tareen et al. (2023) found that self-efficacy and self-regulation correlated strongly with motivation and academic success. Control orientation, on the other hand, has a different look, with individuals focused on what others think of them and their performance, is more ego-involved, and with a tendency to dehumanize and endorse violence; impersonal orientation characterizes individuals who feel powerless and impotent to change their circumstances, with corresponding lack of self-confidence (Ryan & Deci, 2019).

Goal Content Theory

The fifth mini-theory is noted as Goal Content Theory (GCT), which examines the internalizing of life styles and aspirations and the manner in which they give shape to day to day decisions and attitudes, with regard to basic needs and well-being; in general the theory examines extrinsic life goals whereby individuals pursue external rewards and recognition, while intrinsic life goals entail self-actualization, community-related and benevolent behavior (Ryan & Deci, 2019). Those focused on extrinsic rewards are less likely to value relationships, community interaction and personal growth (Grouzet et al., 2005). GCT research has shown consistently that the greater importance people place on extrinsic rewards, the less they are able to meet basic psychological needs and attain well-being, whereas conversely the greater focus and emphasis on intrinsic rewards the greater attainment of reported well-being (Ryan & Deci, 2019).

Relationship Motivation Theory

SDT Theory addresses three core psychological needs: autonomy, competence, and relatedness; the sixth mini theory, described as the Relationship Motivation Theory, explores the third core need of relatedness regarding motivation and relationships, which is incumbent in the healthy development of critical, high sustainable relationships and overall wellness (Chiu, 2023; Ryan & Deci, 2019). Despite earlier theories that argued otherwise, extensive SDT research has shown that autonomy and relatedness are highly correlated and coexist in the best of social contexts and relationships; the theory further posits that the satisfaction of the need for autonomy is as important to the relationship as the satisfaction of relatedness in a relationship, and that successful, high-quality relationships occur when people feel there is mutual volition in the relationship connection (Ryan & Deci, 2019).

SDT research literature in education clearly demonstrates that when the three basic needs of autonomy, competence and relatedness are nurtured and propagated, there are successful

outcomes in student engagement and quality of learning (Chiu, 2023; Rosli & Saleh, 2023; Ryan & Deci, 2019). When autonomy supports, competence scaffolding, and relational feedback are provided there are successful outcomes. When teachers are likewise engaged, students are more likely to be similarly engaged (Ryan & Deci, 2019).

SDT provides a broad framework in understanding those factors that facilitate or undermine student motivation and academic success (Ryan & Deci, 2020). Research demonstrates that both intrinsic and internalized (external) motivation influences positive academic outcomes across educational levels and cultural environments, and that there is a direct link between teacher and student motivation; i.e., teachers themselves are impacted culturally and institutionally regarding motivation and impart that to their students (Ryan & Deci, 2020). Of note is that despite clear research evidence of student psychological needs in the learning environment, policies and educational practices across the globe continue to reflect traditional teacher-centered pedagogy, falling well short of meeting those needs (Ryan & Deci, 2020).

Self-Determination Theory, as supported by numerous studies over the past thirty years in the area of education, demonstrate that intrinsic and autonomous extrinsic motivation improve student engagement and learning, and that support from teachers and parents facilitates that motivation (Ryan & Deci, 2020). The psychological needs of well-being, self-confidence, and self-esteem are directly influenced by whether those needs are nourished or deprived in the school setting (Ryan & Deci). Vallerand, et al. (1992), working through the lens of self-determination theory, notes in his development of his Academic Motivation Scales that the motivational forces of intrinsic motivation, extrinsic motivation and amotivation are primary determinants of students' school-related behavior.

At the very core of this proposed study is the resilience and academic motivation of the female Afghan high school student in their ability to mediate adverse persecution and trauma, wartime violence, gender apartheid, and educational denial (Akbari & True, 2022). A central measure of their will and determination is academic motivation- that these girls with so little compared to their Western counterparts and risking their lives daily should want to become engineers, doctors, and lawyers and impact the world, a world that is fighting them every step of the way (Razia, 2023). Their academic effort is captured conceptually by self-determination theory in seeking to understand socially, culturally, and psychologically what may underpin the motivation and determination of such a persecuted population to succeed (Razia, 2023). Additionally, a key component of self-determination theory is that self-confidence and self-esteem are influenced by the school setting (Ryan & Deci, 2020). In the case of the population from which the sample for the current study will be drawn, two underground schools similar to others currently operating in Afghanistan, that is comprised entirely of persecuted students and teachers, who by the very nature of being in the school are demonstrating a high degree of self-confidence and resilience, are as a group, self-nourishing and supporting (Zaman, 2023).

Of note is that SDT purports applicability across political, cultural, and economic domains, and predicts that a culture that provides basic needs and support for autonomy will lead to human flourishing while cultures that diminish autonomy and competence development thwart intrinsic independence and capacity for self-realization; SDT also purports that the more totalitarian the regime, the less autonomous development is found in its population (Ryan & Deci, 2017). Yet Afghan high school girls as a group, under one of the most oppressive regimes in the world, demonstrates resiliency, self-confidence, and an exceptional determination to succeed (Razia, 2023; Zaman, 2023).

Importantly, for women in an oppressive culture, autonomy as empowerment is critical to their emancipation and psychological well-being (Ryan & Deci, 2017). Understanding the social, cultural, and psychological influences driving the motivation of this population to challenge and overcome unique, severe persecution and education denial is important in not only bolstering their own self-confidence and academic successes, but potentially serves as a catalyst for policy reform, and further needed research in the study of the systemic persecution of women and girls. While research in understanding the social, cultural, and psychological influences on the academic motivation of students in other settings has been extensive, further research is needed in examining such influences on motivation in severely persecuted populations in conflict countries such as Afghanistan (Kovess-Masfety et al., 2023).

Related Literature

A review of the available literature reveals two major areas of relevance in understanding female Afghan high school students and education: trauma and resilience, and gender persecution and resilience. Afghanistan has been at war constantly for decades; school-aged children in Afghanistan today have never known a life without war. Along with endemic violence and death, much of the country's civil, economic, and school system infrastructure and function have been destroyed or degraded over the past 40 years (Akbari & True, 2022; Kovess-Masfety et al., 2023).

The consequences of school child exposure to the combat environment extend beyond direct war-related events such as bombings, shootings, and death, to extreme poverty and hardship as a result of armed conflict (Kovess-Masfety et al., 2021). Continuous war, long-standing cultural persecution, the recent collapse of the Afghanistan government, and resulting humanitarian catastrophe, and current Taliban oppressive policies have resulted in major

disruptions in education, particularly for Afghan women and girls; traditional Muslim patriarchal oppression of women has historically impacted access to education, and continues, particularly in rural areas (Afghanistan Ministry of Education (MOE), 2017; Burde and Linden, 2013; NESP, 2017; Shayan, 2015; UNESCO, 2015). Current gender persecution and violence, threats of violence, and denial of education these female high school students suffer by the Taliban are unique in the world; no other country, to include other Muslim countries, perpetrates such tyranny (Akbari & True, 2022; Razia, 2023).

Gender persecution has a significant impact not only on the hopes and mental well-being of girls but on their families and the economic health of their community, as well as the country as a whole (Akbari & True; United Nations Development Program in Afghanistan, 2023). The Afghanistan GDP declined by 3.6% in 2022 after a 20% decline in 2021; it is doubtful the economy will revitalize if women cannot work, and there continues to be no investment in the education of women and girls (United Nations Development Program in Afghanistan).

In addition to political and religious persecution, the trauma of a war zone affects school children. In their study on the impact of war trauma on a sample of 1,850 school children in the Gaza Strip following a prolonged period of war violence, Manzanero et al. (2021) found that the children demonstrated a much higher incidence of PTSD than that found in the general population and that traumatic symptoms manifested more in older children, possibly as a result of more prolonged exposure over time and a deeper understanding of the far-reaching implications of war violence. Manzanero et al. noted resilience in effective coping strategies and problem-solving abilities, and positive family support.

Despite the decades-long war in Afghanistan, its strict cultural patriarchal society, and the worldwide condemnation of the Taliban’s oppressive policies with regard to girls and education,

there is limited information available in the literature on the impact of war trauma and gender persecution on Afghan girls; further examination will add to the limited body of knowledge regarding this oppressed and vulnerable population (Akbari & True, 2022; Kovess-Masfety et al., 2023).

Trauma and Resilience

Trauma is defined as transient or chronic distress following a significant, threatening event (Meiser-Stedman et al., 2009); it is also addressed by the American Psychiatric Association's (2013) *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM-5) as severe clinical distress following either direct or indirect exposure to devastating events such as actual or possible death, serious injury or sexual violence. May and Wisco (2016) further examined factors impacting the trauma experience to include what constitutes direct exposure (experiencing the event first-hand or seeing it happen to others), indirect exposure (typically through narratives or work-related accounts) and proximity to the event itself, which may significantly influence the person's perception and response to the event. Derived from the Greek word for 'wound', the study of trauma dates to antiquity (Jones & Cureton, 2014). Initially linked to the horrors of war experienced by soldiers, the understanding of what constituted significant trauma grew to include other exposures to death and violence, to include sexual and domestic violence; experiencing or witnessing the event or events, learning about the event(s) and/or hearing repeated stories about the event (vicarious trauma, such as with first responders) can precipitate trauma-related behavior (Jones & Cureton, 2014).

Panter-Brick et al. (2015) explored trauma exposure and trauma memory among Afghan youth, aged 11-16, coping with multiple stressors of poverty, insecurity and war trauma, in examining resiliency to trauma; they found that Afghan youth significantly channeled, that is

repressed or forgot, significant trauma events as a coping mechanism, with 52% of the youth in the study maintaining low distress despite significant daily exposure to trauma. Posttraumatic resilience is typically the norm, consistent with research literature, and such groups are considered resistant to toxic environments; Panter-Brick et al. determined they were either remarkably protected by their families and/or remarkably able to differentiate day to day stressors from significant trauma.

Studies on the effect of war on school children across many settings for the most part are not empirically based and have delivered conflicting results; most focus on the deleterious effects of post-traumatic syndrome (PTSD) as a predominant outcome, while at the same time, there are published studies indicating children develop healthy resilience and self-efficacy (Kovess-Masfety et al., 2023; Veronese & Pepe, 2020; Veronese et al., 2021). In their study on Palestinian children experiencing severe war trauma, Veronese and Pepe (2020) found that perceived satisfaction with family and school served to distinguish children who were clinically referred for mental health issues from those that weren't, in a population of children who had been exposed to war trauma. While providing valuable data on resiliency, the study is limited however as it lacks longitudinal depth and may allow local variability to skew results. Along with longitudinal data, future mixed-method studies utilizing both quantitative and qualitative approaches may provide a more robust portrait of this population regarding responses to war trauma (Veronese & Pepe, 2020). In a study on the resiliency of Syrian children exposed to severe war trauma, Veronese et al. (2021) found similar results with children who demonstrated competent pro-social behavior having higher levels of resilience than children that did not.

War and civil unrest are associated with mental health issues, particularly with school-aged children (Kovess-Masfety et al., 2023). In their study of over 4000 households across

Afghanistan, Kovess-Masfety et al. (2023) found Afghan children presented more than double the percentage of mental health problems than their peers across other regions in the world, to include high conflict middle eastern countries. However, they also found that school attendance was associated with lower rates of emotional problems, serving as protection from the trauma around the children. Of significance here is the impact of Taliban policy of education denial for high school girls. There are several limitations to the study including the applicability of questionnaires administered across the Afghanistan multicultural population, and the administration of those questionnaires to the parents only, and not the children. Further work needs to be done, particularly in remote, rural areas in the country, of which there are many, as well as further research on protective factors from trauma for Afghan female students (Kovess-Masfety et al., 2023).

Trauma and Mental Health

In addition to the definitions of trauma described above, Kleber (2019) examines the experience itself of an individual going through a traumatic event as feeling helpless in the face of the event with little to no control over the event, as well as a disruption of sense of safety and assumptions, and is a victim of the event; often gone also are trust and any ordered worldview the individual may have had. From a mental health perspective, research demonstrates though that such reactions are normal, and relatively few people, while developing temporary symptoms, develop chronic mental disorders; one study showed acute symptomology at 87% of the sample of those experiencing trauma, while longitudinal studies of disasters and with Vietnam veterans showed chronic PTSD rates of 4-7% (Kleber, 2019). Chronic mental disorders, however, do carry a significant societal burden, and beyond personal distress there are major consequences for the family, community, and systemically for the larger community; in

underdeveloped conflict countries such as Afghanistan, where armed conflict has rendered medical systems, not to mention mental health support systems disorganized and severely under resourced, where mental health problems are highly stigmatized, the burden of mental health morbidity has a disproportionate impact on societal wellbeing (Kovess-Masfety et al., 2022). Of note is that while Kovess-Masfety et al. (2022), in their study across 16 Afghan provinces, found that while mental health resources overall were relatively accessible in Afghanistan compared to similar countries, researchers were unable to access some of the more dangerous areas, which were excluded from the study, and there were regional variations; those that lived in the most dangerous areas, and potentially had more exposure, had the least access to mental health care.

More than half of the population of Afghanistan suffer from mental distress disorders, to include depression, anxiety and PTSD, and due to oppressive social standards, women and girls suffer disproportionately; only about 10% of the Afghan population receive effective mental health care from the government (Saleem et al., 2021). Trani and Bakhshi (2013), in their study across 34 Afghan provinces, examined the prevalence of mental distress among vulnerable groups (disabled, poor, and belonging to a minority ethnic group- representing about 60% of the Afghan population); they found that cultural factors, customs and beliefs in a war-related environment that exacerbates conditions can lead to isolation and less access to a social fabric important for support for vulnerable groups, and a significantly higher incidence of mental distress (86% for vulnerable groups compared to 29% for nonvulnerable groups). They also found a significant inverse correlation between incidence of mental stress disorders and access to primary education.

Decades of war has resulted in destruction of much of Afghanistan’s economic, cultural and social infrastructures; Afghans have been forced to live through extreme living conditions,

face almost continuous bereavement, losing their homes or having them damaged through violence, being forced to move, and being imprisoned and in some cases tortured (Kovess-Masfety et al., 2021). The current humanitarian crisis in Afghanistan is both complex and severe (Ahmadi et al., 2023). Much evidence exists from other countries linking war and political violence to population mental health disorders, but the impact of war on mental health in Afghanistan is inadequately researched (Kovess-Masfety et al., 2021). Little is known concerning trauma memories and the impact on youth in conflict countries and specifically with Afghan youth (Panter-Brick et al., 2015). In their study of Afghan youth in Kabul and in refugee camps in Pakistan, Panter-Brick et al. (2015) found that two-thirds reported trauma exposure and one half reported traumatic distress, and that they significantly channeled their recollection of trauma, forgetting or repressing memories of poverty, insecurity and non-combat violence, but retained accurate memories of war violence. A study of 376 Afghan adolescents following the Taliban takeover in August, 2021 found that 79% of the girls in the study met criteria for clinical PTSD and depression (Ahmadi et al., 2023). Another study of 287 schoolchildren aged 7-15 in Kabul found that half of the students who had experienced at least one traumatic event developed PTSD, a much higher incidence rate than other conflict countries, suggesting that the interaction of multiple stressors found in Afghanistan contribute to a higher level of vulnerability for PTSD for this population (Catani et al., 2009).

Trauma and Resilience in Education

War and political violence in Afghanistan are associated with mental health issues, with Afghan school children constituting a particularly vulnerable group, with major disruptions in access to education; however studies have shown attending school mitigates mental health risks among children (Kovess-Masfety et al., 2023). In a study assessing mental health of children in

war-torn Afghanistan, Kovess-Masfety et al. (2023), in assessing both Afghan children who attended school and those who did not, found school attendance was associated with lower incident rates of mental health issues for both boys and girls; a significant implication of the findings though are the mental health prospects of older female students who are banned from attending school by the current post-2021 Taliban regime. For the highly vulnerable student population in Afghanistan, school can serve as a protective measure; further studies on the impact of attending school on the mental health of students in Afghanistan are critical, particularly for female students in remote and highly dangerous areas (Kovess-Masfety et al., 2023). Panter-Brick et al. (2015) found, in reporting on Afghan youth and trauma experiences, despite almost constant exposure to insecurity and violence, that one third of the cohort studied reported no trauma exposure; they fell into a category often labeled in the literature as resilient to trauma and toxic stress, primarily due to strong family support, with anchors in school and the community. Panter-Brick et al. (2015) also found that boys were significantly less likely to report sustained high distress than girls, in being able to forget or repress significant traumatic memories. In their study of children exposed to war trauma on the Gaza Strip, Veronese et al. (2019) found 78% of boys and 52% of girls reported direct exposure to war violence; play, significant relationships and school were reported as protective factors. However, because of the poor mental health prognosis in conflict trauma settings for youth, more data collection is critical, particularly longitudinal data in better understanding childhood adversities in these settings and to determine effective intervention strategies, to include support for family-centered environments and access to education (Panter-Brick et al., 2015).

Cultural/Gender Persecution and Resilience

Persecution is defined as the thought process resulting from feeling at risk or threatened by others due to treachery or malice (Melo et al., 2009); thoughts of persecution are conceptualized as threat beliefs (Freeman et al., 2002). At a state level, according to the United Nations High Commissioner for Refugees (UNHCR), when state measures lead to substantial restrictions on a person's right to work, to practice religion, and to access education, this constitutes persecution; further, the sustained denial of basic human rights driven by state failure to provide protection also defines persecution under the 1951 Refugee Convention (Tan & Ineli-Ciger, 2023). In 2022, Afghanistan ranked last of 146 countries in the Global Gender Gap Index, indicating the worst gender equality in the world; rights currently being denied to women by policy and government dictates include education, work, freedom of movement, healthcare, freedom of expression and protection from gender-based violence (Tan & Ineli-Ciger, 2023). Buxton (2022) argues that state persecution goes beyond individual suffering, and that persecution undermines and changes the basic condition of the social and political world; that controlling members' ability to interact extends the state's ability for further control toward totalitarianism. Akbari and True (2022) state that the Taliban's current persecution of women, which they label as gender apartheid, is integral to a projection of power with relation to Taliban supporters while also establishing internal order and demonstrating reach and capacity to govern.

Gender equality in education can be defined as rights to equality in access, participation, progress, and employment following education (Subrahmanian, 2005). However, girls in Afghanistan face numerous obstacles to those rights, namely education denial through policy by the current Taliban regime, long-standing religious and patriarchal beliefs and customs, poverty, lack of security, and traditional early marriages (Shayan, 2015). The oppression of women and their rights in Afghanistan can be traced back forty years politically at the very least, and cultural

oppression much further than that; the Afghan woman has historically been isolated within the anachronistic Afghan patriarchal and warlord social structure and culture (Samar, 2019; Shayan, 2015). The Taliban, exercising their brand of extremism, have systematically revoked the human rights of women and girls by denying them employment, education, and independence (Samar, 2019). The current Taliban regime continues the oppressive practices it employed in the late-1990s; rooted in Muslim extremism as well as the culture of a patriarchal Muslim society, the Taliban employs a hyper-masculine patriarchal worldview that denies the personal and professional rights of women (Yousaf & Jabarkhail, 2022). In the face of such oppression however, as well as public beatings and the threat of imprisonment and death, women continue to advocate at every level for their rights, to include street protests and attending secret schools (Akbari & True, 2022; Dutta, 2023; Razia, 2023).

Despite worldwide condemnation of its oppressive policies toward women, significant economic pressure, and refusal by any country to formally recognize the Taliban as an official government, Afghanistan remains the only country in the world to deny education for girls and women (Akbari & True, 2022). Every educational, economic, social, and political aspect of Afghan women and girl's lives has changed dramatically since the 2021 Taliban takeover; within months of the takeover women’s legal and constitutional rights were eliminated, and female secondary school access remains closed across the country (Akbari & True, 2022). The repression of women is a daily fact of life in Afghanistan under the Taliban regime; despite tremendous external pressure Taliban leadership stands firm in its policies (How the world should oppose the Taliban’s war on girls, 2022). In a setting notable in the world for the repression of educational rights for girls, in addition to the compounded factors of war trauma and denial of human rights, there is a paucity of research literature. Little is known of the near-

term and long-term implications on the educational outcomes and well-being of female school children in Afghanistan; much further research is needed (Jewkes et al., 2018; Kovess-Masfety et al., 2023).

Traditional/Cultural Persecution of Women in Afghanistan and Resilience

More than half of the Afghan population suffer from depression, anxiety and/or PTSD as a result of decades of violence; women and girls face additional trauma resulting from longstanding cultural discriminatory practices (Saleem et al., 2021). Kovess-Masfety, et al. (2021), in investigating depression and anxiety in the Afghan population found that multiple trauma exposures were the predominant factor in determining mental health, and that women were exposed at twice the rate of men to sexual violence. Kovess-Masfety, et al. (2021) found the need to continue to research mental health issues critical given the level of trauma and persecution in Afghanistan in determining intervention strategies, to include education as an intervention. A study conducted prior to the 2021 Taliban takeover, in comparing Taliban-controlled regions with non-Taliban-controlled regions found up to a 78% rate of major depression among women in Taliban-controlled areas compared to 28% in non-controlled areas, and a 65% suicidal ideation rate versus an 18% rate in controlled versus non-controlled areas (Amowitz et al., 2003).

However, during the civil wars preceding the Taliban's rule in the late-1990s, and during their rule, when women were severely persecuted, with no access to education, women established hundreds of underground schools for girls, at great risk to themselves; women demonstrated a significant capacity for resiliency in the face of tremendous adversity (Brodsky et al., 2012). For decades women have faced cultural and religious oppression, war and violence, psychological and emotional trauma, and societal backlash to basic rights (Brodsky et al., 2012;

Razia, 2023; Shayan, 2015). Extreme religious beliefs and misogynistic traditions challenge women and girls in education (Shayan, 2015). Following the Taliban's 2021 takeover and subsequent ban on jobs and education for women, in a demonstration of resiliency, women took to the streets at great risk to publicly protest and demand their rights; they faced beatings in the roads and bans on future protests, but they continue to protest (Razia, 2023). In their early 2000s study of persecuted Afghan women through the lens of family resilience theory, in seeking to understand the Afghan woman's capacity for resiliency, Brodsky et al. (2012) found the family, and specifically children in the family play a significant protective and promotive role in women's resiliency, i.e. that women will go to great lengths to protect and support their children and their family in what becomes a symbiotic environment. Needed is future quantitative and qualitative research in additional family settings and communities in understanding the dynamics of family strength-based resilience in the violent and war-torn environment of Afghanistan (Brodsky et al., 2012).

Women, at notable risk to themselves, continue to engage in underground and public resistance efforts to assist and encourage other women to resist oppression while advocating for their basic rights (Brodsky et al., 2012; Razia, 2023). Human rights in Afghanistan are non-negotiable; the promotion and protection of basic rights, especially for women, are key to sustainable peace and development, are key to survival, for a future Afghanistan (Samar, 2019).

Current Taliban Persecution of Afghan Women and Resilience

Founded in the mid-1990s, amidst civil war the Taliban took over Kabul and Afghanistan in 1996 and implemented their extremist version of Sharia law, which included among other oppressive acts public executions and banning women from public life, work and education; after being ousted from power following 9/11, they regrouped in Pakistan and began a 20 year-long

violent insurgency against the Afghanistan government and the US-led international coalition and reform efforts, which included freedom of access for women to work, education and basic rights (Jackson & Weigand, 2023; Razia, 2023; Samar, 2019). In August 2021, following the US and Coalition withdrawal, the Taliban once again returned as a de facto government, not recognized by any other country in the world, as well as to the widespread persecution of women (Jackson & Weigand, 2023; Razia, 2023; Yousaf & Jabarkhail, 2022). The center of gravity for the Taliban de facto government is rule by an emir in Kandahar, far from the formal governance of Kabul and surrounded by an inner circle of loyalists; from this isolated location policy is dictated driven by extremist ideology; though more progressive leaders in Kabul disagree with such dictates toward political expediency with the outside world, the emir's decrees are law (Jackson & Weigand, 2023). As voiced by those in Kandahar, the belief is that the pain of economic collapse and severe persecution of women, condemned by most of the world, is pain to bear in order to achieve a pure Islamic state (Jackson & Weigand, 2023).

By the end of 2023, two years after the Taliban takeover, the country is experiencing severe crises at multiple levels; the economy has contracted a cumulative 27%, and 7 out of 10 Afghans lack basics needed for subsistence-level living conditions (United Nations Development Program, 2023). Nine out of ten Afghans have identified their greatest needs as food, work or healthcare (United Nations Development Program, 2023). The collapse of the economy following the 2021 takeover by the Taliban resulted in the loss of hundreds of thousands of jobs, and coupled with policies denying women access to work has resulted in extreme poverty; and critically not only has healthcare itself been severely impacted by the economy, but the denial of women to work for NGO (Non-Governmental Organization) healthcare agencies, and denial of education preparing women to work in the healthcare field in the future has had and will

continue to have disastrous effects on the health and well-being of Afghans for the foreseeable future (Human Rights Watch, 2024).

Following their takeover of Afghanistan in August, 2021, the Taliban imposed heavily restrictive policies violating fundamental rights of women and girls, to include bans on education beyond the sixth grade, from working outside the home, from visiting public parks, and from freedom of movement outside the home without a male relative escort among other discriminatory policies; women are at risk for being targeted, isolated, and marginalized, and punished if they resist (Neyazi et al., 2023; Razia, 2023). The Taliban's repression of women's rights is a reality, which will result in several years in no female high school students and no women going on to higher education and research (How the world should oppose the Taliban's war on women and girls, 2022). Nonetheless, despite beatings and threats of punishment, as well as the kidnapping and subsequent disappearance of women activists, as early as September, 2021 women began publicly demonstrating for their rights, with access to education as a centerpiece to their sought after emancipation; despite being denied permission to demonstrate the women do so anyway in Kabul- unlike in the past, they are more aware and determined to take a stand in garnering strength and courage from their supporters outside of Afghanistan as well as international moral outrage on a universal scale (Jami, 2022; Razia, 2023). The sudden fall of Kabul in August, 2021 and the dramatic elimination of rights resulted in women resisting in ways unlike the ways in which their mothers did against the previous 1996-2001 Taliban regime; in his study on Afghan women's rights pre-2001 and post-2021, Jami (2022) demonstrated that while the Taliban ideology has not changed in the past 25 years, women's ideas on their rights have changed considerably due in no small part to the impact of western ideas and social media

over the intervening two decades, and globalized human rights dynamism and international influence into their lives, generation and society.

Summary

Longstanding cultural persecution, as well as decades of war-related trauma and the more recent persecution and educational denial of Afghan women to attend high school and college by the Taliban, resulting in worldwide condemnation has significantly impacted female Afghan students and their pursuit of education. Afghan women and girls, by any means possible, continue to seek access to education despite traditional oppression as well as the very real risk of violence and death to both them and their families at the hands of the Taliban. Researchers, to a limited degree, have explored the resiliency of similar populations in other conflict countries, but only recently, and on a limited basis in Afghanistan due to the recent regime change, subsequent social and economic upheaval, and dangerous environment. A shift in educational policy for female students is not expected any time soon, and even if so, access to scientific and technical curricula will certainly be prohibited (Akbari & True, 2022). Researchers have explored resiliency theory in other populations facing a wide range of adversarial conditions, as well as exploring academic performance in light of self-determination theory. Resiliency theory reflects a dynamic combination of factors that facilitate positive adaptation to adverse life experiences (Truffino, 2010). Self-determination theory examines intrinsic, autonomous extrinsic (that which is self-determined) and amotivation and related behavior and demonstrate how they influence educational outcomes (Ryan & Deci, 2017).

This study seeks to explore the relationships between persecution and trauma and academic motivation of high school female Afghan students in furthering the understanding of how this little-studied population responds to such adversity in the educational setting (Kovess-

Masfety et al., 2023; Razia, 2023). Specifically, the study seeks to add to the limited body of knowledge of the resiliency and individual motivation and determination to succeed of this population attempting to survive and thrive amid chronic war and long-standing, severe persecution (Razia, 2023).

Directly accessing this population and investigating and understanding the complex relationships between trauma and persecution and academic motivation, will add to the body of knowledge in an identified gap in literature. In addition to potentially aiding in emancipating Afghan women and girls both locally and nationally, and inspiring countless others, the study also provides a foundation for additional work relevant to similar populations in other conflict countries, and ultimately to persecuted women and girls across the globe.

CHAPTER THREE: METHODS

Overview

The purpose of this quantitative, non-experimental, predictive correlation study is to determine if there is a predictive relationship between academic motivation and the linear combination of trauma and persecution on Afghanistan female high school students. This chapter begins by introducing the study's design, including complete definitions of all variables. The research questions and null hypotheses follow. The participants and setting, instrumentation, procedures, and data analysis plans are presented.

Design

A predictive, correlational design will be used in this non-experimental, quantitative study (Warner, 2013). Correlational research seeks to investigate relationships between variables using correlational statistics, whereby a predictive correlational design seeks to discover the extent by which a criterion variable behavior pattern can be predicted by other variables; in this case data are collected that can be statistically analyzed as a quantitative study (Gall et al., 2007). Such a design has been used in similar studies (Bittman & Russell, 2016; Kovess-Masfety et al., 2023; Phan, 2008). The current research will quantitatively examine the predictive relationships between two predictor variables (trauma and persecution) and one criterion variable (academic motivation). A non-experimental, correlational design is appropriate as no treatments will be applied; rather, existing conditions of the students will be investigated and predictive relationships between the variables will be quantitatively described.

The criterion variable of academic motivation is defined through the lens of self-determination theory, and stems from the innate psychological need for competence and self-determination; it is the source of behaviors that drive curiosity, persistence, learning and success

or failure in an academic environment, and includes intrinsic and extrinsic motivation, as well as amotivation. (Vallerand et al., 1992). The predictor variable of trauma is defined as transient or chronic distress following a significant, threatening event (Meiser-Stedman et al., 2009). The predictor variable of persecution is defined as the thought process resulting from feeling at risk or threatened by others due to treachery or malice (Melo et al., 2009). The goal of the study design is to answer the following research question.

Research Question

RQ1: How accurately can academic motivation be predicted from a linear combination of trauma and persecution factors for Afghanistan female high school students?

Hypothesis

The null hypothesis for this study is:

$H_0$1: There is no significant, predictive relationship between the criterion variable (academic motivation) and the linear combination of the predictor variables (trauma and persecution) for Afghan female high school students.

Participants and Setting

In this section the study population is described. The participants, sample size, and sampling methodology are also described, as well as the setting for the study.

Participants

Participants for this study were drawn from a convenience sample of female Afghan high school students, attending two underground “secret” high schools for girls (Firchow & Irwin, 2021; Razia, 2023), located in Afghanistan during the summer of 2024. School was in session as the Afghanistan school year runs from March through December. The country is predominantly agricultural, and most students come from rural farming backgrounds (World Factbook, 2023).

Most families subsist at or below poverty levels following the collapse of the central government in 2021 and the takeover of the country by the de facto authority of the Taliban (United Nations Development Program in Afghanistan, 2023). Central civil governance and infrastructure is minimal, with widespread persecution of women by the Taliban by policy, violence, and threats of violence. War violence continues with numerous terrorist organizations operating in the country; the country has been at war continuously for over 40 years (Kovess-Masfety et al., 2023).

In this study, the sample size was 119 students, which exceeds the required minimum when assuming a medium effect size. The minimum sample size for multiple linear regression is 107 with two predictor variables when assuming a medium effect size, statistical power of .7, and alpha level set at .05 (Warner, 2013). The sample was drawn from two underground, "secret" high schools for female students (Firchow & Irwin, 2021; Razia, 2023) in Afghanistan, with a total student population of 300 in grades 7-12. Following a scripted announcement of the study by the school principals, a pool of student volunteers was established. The sample was selected from that pool following teacher recommendations regarding English language proficiency (English language is a mandatory curriculum requirement from elementary school through high school) in understanding, speaking, and reading English. All students were of Afghan and Hazara tribal ethnicity, with Dari as the first language though most students are multi-lingual. The students in the sample were in grades 10-12 and aged 16-20; the sample consisted of 47 students aged 16, 25 students aged 17, 24 students aged 18, 10 students aged 19, and 13 students aged 20.

Setting

The setting for the study was at two "secret" high school locations in Afghanistan. Though "secret" schools, each high school is established in a central community building. Such schools are operated across the country as unofficial schools as they contravene Taliban policy of females being banned from attending school beyond the sixth grade. Most secret schools operate, albeit tenuously and semi-covertly, with village elder (the Afghan version of a town council) and parental support, and Taliban tacit acknowledgement, mostly without interference. School locations here are omitted for security reasons. Testing took place in classrooms at the respective schools during the school day, during the summer. School was in session as the Afghanistan school year runs from March through December.

Instrumentation

Three instruments were used in this study. The instruments were administered in English, with the presence of a translator; though the students are fluent in English, Dari is their primary language. The Academic Motivation Scale (AMS) was used to measure student extrinsic motivation, intrinsic motivation and amotivation (Vallerand et al., 1992). See Appendix A for the author's permission to use the instrument. The Child Post-Traumatic Cognitive Inventory (CPTCI) was used to measure the predictive variable of trauma (Meiser-Stedman et al., 2009). See Appendix B for the author's permission to use the instrument. The Persecution and Deservedness Scale (PADS) was used to measure the predictor variable of persecution (Melo et al., 2009). See Appendix C for the author's permission to use the instrument.

Academic Motivation Scale (AMS)

The purpose of the Academic Motivation Scale (AMS), based on the principles of self-determination theory (SDT), is to measure student extrinsic motivation, intrinsic motivation and amotivation (Vallerand et al., 1992). It is an appropriate instrument to use for this study to

investigate the criterion variable of academic motivation. The AMS was adapted from the French Echelle de Motivation en Education (EME) and translated into English and culturally and linguistically cross-validated, as well as renamed (Vallerand et al., 1992). Concurrent and construct validity was established in 1993 using a population of junior college students in Canada (average age 18.7 years) (Vallerand et al., 1993), while reliability and stability was established in 1992 with a college population in Canada (average age 21.0 years) (Vallerand et al., 1992). The instrument has been used widely and often with both high school and college students (Alivernini & Lucidi, 2008; Calcon et al., 2015; Guay et al., 2015; Stover et al., 2012; Tus, 2020; Utvaer & Haugen, 2016).

The AMS assesses seven motivational factors, or subscales to include intrinsic motivation, in which the student seeks to engage in an activity for itself and its derived satisfaction (intrinsic motivation to know, motivation to accomplish and motivation to experience stimulation), and extrinsic motivation, in which the student seeks a means to an end (external regulation, internalized regulation, and self-identification); the seventh factor describes amotivation, in which the student has feelings of incompetence caused by factors beyond one's control (Vallerand et al., 1992). Overall academic motivation was measured by a self-determination index representing the seven subscales (Hegarty, 2010; Vallerand et al., 1992-1993).

The 28 item English language AMS for high school students (Vallerand et al., 1992-1993) was used for the current study with a population of Afghan female high school students, fluent in English, with an average age of 18.0 years. The scale was evaluated for cultural appropriateness and approved by a committee of local Afghan educators. Calcon et al., (2015), in their study using the English language scale with Asian middle school students, who were fluent

in English, with minor modifications to wording to reflect the age-level, demonstrated cross-cultural construct validity and adequate fit-to-data, and recommended use of the AMS to assess academic motivation in Asian secondary students. Utvaer and Haugen (2016) in their study using the AMS for high school students in Norway found good reliability and construct validity.

Reliability and validity were tested for the Academic Motivation Scale (Vallerand et al., 1992, 1993). Cronbach alpha values ranged from .83 to .86 for internal consistency; test-retest correlations ranging from .71 to .83 were obtained; Pearson correlations were computed to assess construct validity among the seven AMS factors, with correlations ranging from .60 to .86; confirmatory factor analysis (CFA) indicated Goodness-To-Fit index value of .89 (Vallerand et al., 1992, 1993). Utvaer and Haugen (2016) in their study of the AMS and Norwegian high school students found Cronbach apha coefficients ranging from .71 to .84, and CFA indicating significant t-values for all factor loadings ($p < .01$), ranging from .40- .88.

There are 28 questions on the AMS measuring the seven subscales of academic motivation. The instrument uses a seven-point Likert scale that ranges from Does Not Correspond To Me At All to Corresponds Exactly, with responses as follows: Does Not Correspond At All = 1, Corresponds A Little = 2-3, Corresponds Moderately = 4, Corresponds A Lot = 5-6, and Corresponds Exactly = 7; student responses were calculated, with higher means indicating stronger endorsement of that particular motivation subscale; composite subscale scoring was calculated to determine an overall individual self-determination index, with lower index scores indicating little self-determination and higher index scores indicating a higher level of self-determination (Hegarty, 2010; Vallerand et al., 1992-1993). A sample question includes "Why do you go to school: Because I experience pleasure and satisfaction learning new things"

(Vallerand et al., 1992-1993). The approximate time of administration with translator interaction was 20 minutes. See Appendix A for permission to use the instrument.

The Child Post-Traumatic Cognitive Inventory (CPTCI)

The purpose of the Child Post-Traumatic Cognitive Inventory (CPTCI) is to evaluate negative post-traumatic functioning for children and adolescents. It is intended to inform understanding of significant mechanisms leading to the development of post-traumatic stress disorder (PTSD) in children and adolescents (Meiser-Stedman et al., 2009). In the CPTCI development and validation study conducted by Meiser-Stedman et al. (2009), the instrument was evaluated using a sample of 570 male and female students aged 6-18. Participants were ordered by age groups, and three sample groups to include school children describing their most frightening experience in the previous two months, children that had been exposed to a violent act, or children that were hospitalized as a result of a violent act. Two subscales emerged during the study, that included those that: experienced "permanent and disturbing change" following trauma, and those that were indicated as a "fragile person in a scary world" (Meiser-Stedman et al., p. 434).

The instrument is appropriate for use in this study in investigating the predictive variable of trauma, in understanding the quality of trauma experienced by the study's participants as a result of combat and related trauma occurring in their environment. All instrument subscales were administered for the current study with a population of Afghan female high school students, fluent in English, aged 16-20 years. The scale was evaluated for cultural appropriateness and approved by a committee of local Afghan educators. The instrument was used in numerous studies (Haan et al., 2016; Lee et al., 2018; McKinnon et al., 2016).

Internal reliability was considered to be good with Cronbach's alpha >.75 across all groups. Test-retest reliability was assessed at $r = .72$; $p < .0001$. In assessing convergent validity, each subscale and the total score positively correlated with measures used to index PTSD with all *rs* > .50.

The 25 item self-report CPTCI was drawn primarily from the 31-item adult Post-Traumatic Cognitions Inventory (PTCI) with each item adapted appropriately for children and adolescents; additional items were drawn from related research. A sample question would include "My reactions since the frightening event mean something is seriously wrong with me" (Meiser-Stedman et al., p. 440). The instrument uses a four-point Likert scale that ranges from Don't Agree At All to Agree A Lot; responses were as follows: Don't Agree At All = 1, Don't Agree A Bit = 2, Agree A Bit = 3, and Agree A Lot = 4, with scoring ranging from 25 to 100 for the overall scale, and 13-52 and 12-48 for each of the two subscales. Higher scoring indicates possible dysfunctional PTSD functioning, e.g. overall scoring in the 46-48 range may be used as a PTSD cutoff (McKinnon et al., 2016). The approximate time of administration with translator interaction was 20 minutes. See Appendix B for permission to use the instrument.

The Persecution and Deservedness Scale (PaDS)

The purpose of the Persecution and Deservedness Scale (PaDS) was to develop a self-report measure of persecution thought, paranoia and deservedness applicable to both clinical and non-clinical populations, and which would be valid across cultures. The initial study sample used to establish psychometric properties consisted of 90 male and 219 female United Kingdom undergraduate students, and 90 male and 200 female Portuguese undergraduate students; there were two subscales measuring beliefs about persecution and deservedness of persecution (Melo et al., 2009). It is an appropriate instrument to use in the current study to investigate the

predictive variable of persecution in understanding the impact of persecution on the academic motivation of Afghan female high school students, with a mean age of 18.0 years. The scale was evaluated for cultural appropriateness and approved by a committee of local Afghan educators. The instrument was used in several studies (Melo & Bentall, 2010; Pickering et al., 2008; Valiente et al., 2021).

Cronbach's alpha coefficient for the 10 item PaDS persecution subscale was calculated at .84; convergent validity was demonstrated as scoring on the persecution subscale correlated strongly with similar measures to include the Beck Depression Inventory, r = .57, and Fenigstein Scale, r = .78; the subscale was also found to have concurrent validity (Melo et al., 2009). Valiente, et al. (2021), in a study of 1,947 Spaniards aged 18 and older, using the Spanish short form PaDS, demonstrated a Cronbach alpha coefficient of .84, and test-retest correlation coefficient of .84, with adequate convergent validity.

The persecution subscale was created by developing 10 questions with persecutory content; the deservedness subscale was created using embedded, corresponding questions for deservedness, i.e. a deservedness question followed each persecution question, with the student instructed to respond if they scored higher than a (1) on the question (e.g. question 3 is followed by question 3.1) (Melo et al., 2009). A Likert scale was used with each, scoring 0 to 4 (0 = "certainly false", 1 = "possibly false", 2 = "unsure", 3 = "possibly true", 4 = "certainly true"). For the persecution subscale each item stated or implied the participant was at risk or threatened due to treachery or malice. A sample question included "I believe that some people want to hurt me deliberately" (Melo et al., 2009, p. 260). Scoring used the individual student subscale mean (maximum score = 4), with higher scores indicating greater persecutory ideation (Melo et al., 2009). While both subscales were administered, only the persecution subscale was used in this

study. Approximate time of administration with translator interaction was 20 minutes. See Appendix C for permission to use the instrument.

Procedures

An Institutional Review Board (IRB) application was submitted to Liberty University and approved for the study. Approval was also obtained from the IRB to utilize oral consent from the participants. Having the participant's name in writing on a document as participating in the study could create serious risk for the participant. Of note is that the age of majority in Afghanistan is age 16; the age range for the participants is 16-20. Approval was also obtained from the IRB to recognize age 16 as the age of majority, or the age of consent/legal recognition in Afghanistan as an adult for the purposes of the study (see Appendix D for IRB study approval). A letter was generated, signed by the translator, with standard consent information about the study that each participant read prior to participating in the study, attesting to full consent from all participants. All data obtained during the study is anonymous. The Afghan translator used for the study, who is based in the study region in Afghanistan, was contacted and trained. The translator has worked for American NGOs for over 10 years as a translator and is currently on staff with an NGO conducting humanitarian work in the region. He is multilingual, and speaks, writes and reads English fluently. The researcher has personally worked with him for the last seven years in Afghanistan. As education is part of the mission set for the NGOs he works with, he is familiar with education terminology and processes.

Though the first language of the Afghan students in the study is Dari, the sample was selected based on volunteerism as well as English proficiency, as determined by their English teachers (described above). Thus, the instrument surveys used in the study was administered in the original language of English. The translator was provided with a script to use in

administering each of the three surveys. Specific training was provided by the researcher for the translator before the study via videoconferencing and face-to-face communication. All scripts were reviewed along with data security and physical security considerations. The translator coordinated the survey administration with the two school principals, who were provided with a script to explain the survey to their students. The principal then established a pool of volunteers, who then were evaluated by the principals and the English teaching staff for inclusion in the study. Those selected were individually met by the translator and the principals to discuss and obtain consent. A script was provided for the consent meetings. Ages were recorded but were not personally identifiable. Even though all participants are legally considered adults, sufficient time was provided between consent meetings and study administration to allow for informal questions and feedback from this patriarchal, elder-centered community. Cultural considerations were observed by the principals and translator, who are Afghans and of the Hazara tribe, and are familiar with the community. Of special note: As these are underground schools in a Taliban-controlled area, there are special risks and risk mitigation measures that were taken. Special security considerations were put in place for the schools and for the students; there is full-time security provided at the schools. Coordination and approval for the schools was obtained from non-Taliban village elders and other relevant officials that provide political and practical protection for the schools and the students. Site approval was obtained in writing for access to the schools and students prior to data collection from the senior administrator for both schools. Site locations are confidential.

Each survey was administered as a paper-pencil survey and each was anonymous. There was no personal identifying information on the surveys. The surveys were administered on a single morning during the summer at each of the two schools, while school was in session.

Instrument surveys and procedures were carefully selected to facilitate ease and security of administration. Regular school physical security was used only, as well as a normal school schedule so as to not attract attention. As noted above, no security issues were expected, and there were none. The researcher securely transferred the surveys to Afghanistan and to the translator, which were securely returned to the researcher. The surveys were personally secured and under the direct control of both the researcher and the translator from the researcher's US office and return to his office. Special handling was used so that the surveys did not fall into the hands of the Taliban. There is no reliable mail system, including special carriers such as UPS or FEDEX. They exist but are not reliable. Use of the internet is not considered due to unreliable access in this region and Taliban monitoring. Once in the US, the surveys were secured in the researcher's home office. The researcher scored the assessments and recorded data in SPSS analytical software. Appropriate analysis was conducted and results reported.

Data Analysis

This non-experimental, quantitative, predictive correlational study was conducted to determine the predictive value of the variables of trauma and persecution on the criterion variable of academic motivation. The primary technique to predict performance of two or more predictor variables on criterion variables is multiple linear regression (Gall et al., 2007). Warner (2013) further states that not only can performance on the criterion variable be predicted effectively using the entire set of predictor variables, but also how much variance can be predicted uniquely by each predictor variable while the other predictor variable is controlled, and further what proportion of the variance can be attributed to each of the predictor variables, when the other is controlled i.e. if one is more strongly predictive than the other. Multiple linear

regression can provide a generally complete description of the predictive efficacy of predictive variables.

A multiple linear regression analysis was applied to assess how well the criterion variable (academic motivation) is predicted using the whole set of predictor variables (trauma and persecution), as well the predictive value of each predictor variable when the other predictor variable is controlled (Warner, 2013). The predictor variable of trauma was scored on the Child Post-Traumatic Cognitive Inventory (Meiser-Stedman et al., 2009), the predictor variable of persecution was scored on the Persecution and Deservedness Scale (Melo et al., 2009), and the criterion variable of academic motivation was scored on the Academic Motivation Scale (Vallerand et al., 1992). Data screening was performed visually for missing or inaccurate responses.

Assumption testing examines whether criterion scoring is normally distributed, relationships among all pairs of variables are linear, there are no interactions between variables, and that criterion scoring is homogenous across predictor values i.e. variance is homogeneous (Warner, 2013). The criterion variable must be measured as a continuous variable, though the predictor variables can be categorical or continuous. All variables were measured as continuous. A scatter plot of residuals against values assessed the linear relationships among variables collectively; regression plots assessed the linear relationships between the criterion variable and each of the predictor variables toward all relationships being linear. Independence of observations was assessed using the Durbin-Watson statistic toward no correlation between residuals. The assumption of homoscedasticity was tested by visual examination of the scatter plot of residuals toward errors of prediction being equal across standardized predicted values. Assumption of the absence of multicollinearity examined whether the predictor variables were

highly correlated with one another; inspection of the correlation coefficients and Tolerance and VIF values with values < .7 and 10, respectively, would indicate acceptable levels of correlation. Casewise Diagnostics was used to indicate significant cases of standardized residual outliers. The assumption for normal distribution of residuals was tested using the Q-Q plot toward a normal distribution, with all points aligned to the point of fit. Statistical significance (α) is determined at $p < .05$. Effect size was determined by examining the coefficient of determination, i.e. r^2, or squaring Pearson's coefficient of r to obtain the amount of variance in the criterion variable that can be explained by a predictor variable or set of predictor variables (Gall et al., 2007). The null hypothesis is rejected at the 95% confidence level with the alpha level set to .05.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this quantitative, predictive correlation study was to determine if there is a predictive relationship between academic motivation and the linear combination of trauma and persecution on Afghanistan female high school students. The predictor variables were trauma and persecution scores. The criterion variable was academic motivation scores. A multiple linear regression was used to test the hypothesis. Chapter Four includes the research question, null hypothesis, descriptive statistics, and results, to include data screening, assumption testing, and regression analysis.

Research Question

RQ1: How accurately can academic motivation be predicted from a linear combination of trauma and persecution factors for Afghanistan female high school students?

Null Hypothesis

$H_0$1: There is no significant, predictive relationship between the criterion variable (academic motivation) and the linear combination of the predictor variables (trauma and persecution) for Afghan female high school students.

Descriptive Statistics

Descriptive statistics were obtained on each of the three variables. The sample consisted of 119 participants. Questionnaires were administered for each of the three variables: The Academic Motivation Scale (AMS), the Child Post-Traumatic Cognitions Inventory (CPTCI), and the Persecution and Deservedness Scale (PADS). On the AMS, overall motivation scores range from -18, indicating very little self-determination to +18, indicating extreme self-

determination. Scoring on the CPTCI ranges from 25 to 100. A low score of 25 would indicate little or no trauma-related behavior, while a score of 100 would indicate extreme trauma-related behavior typical of children with severe PTSD. Mean scoring on the PADS ranges from 0 to 4.0, with a low score of 0 indicating little or no persecutory ideation, with a mean score of 4.0 indicating an extremely high level of persecutory ideation. Table 1 provides the descriptive statistics for each variable.

Table 1

Means and Standard Deviations for Criterion and Predictor Variable Scores

Scale	*M*	*SD*	*N*
AMS	7.92	2.04	119
CPTCI	59.10	11.91	119
PADS	1.69	.69	119

Note: AMS = Academic Motivation Scale; CPTCI = Child Post-Traumatic Cognitions Inventory; PADS = Persecution and Deservedness Scale.

Further, descriptive statistics were obtained for each variable by age, which can be found in Tables 2-4. Greater self-determination was generally demonstrated as age increased on the AMS; generally lower levels of trauma were reported as age increased on the CPTCI; and generally persecution levels decreased as age increased on the PADS. The largest age group was age 16, at 39.5% of N.

Table 2

AMS Means, Standard Deviations and Number by Age

Age	*M*	*SD*	*n*	*% of N*
16	7.64	2.38	47	39.5
17	7.79	1.78	25	21.0
18	7.76	1.73	24	20.2
19	8.51	1.77	10	8.4
20	9.01	2.04	13	10.9

Note: AMS = Academic Motivation Scale

Table 3

CPTCI Means, Standard Deviations and Number by Age

Age	*M*	*SD*	*n*	*% of N*
16	62.70	10.53	47	39.5
17	57.92	12.20	25	21.0
18	56.08	9.45	24	20.2
19	56.80	14.27	10	8.4
20	55.69	16.14	13	10.9

Note: CPTCI = Child Post-Traumatic Cognitions Inventory

Table 4

PADS Means, Standard Deviations and Number by Age

Age	*M*	*SD*	*n*	% *of N*
16	1.67	.72	47	39.5
17	1.96	.78	25	21.0
18	1.74	.43	24	20.2
19	1.49	.61	10	8.4
20	1.30	.73	13	10.9

Note: PADS = Persecution and Deservedness Scale

Results

Data Screening

The researcher sorted the data and scanned for inconsistencies on each variable. No data errors or inconsistencies were identified. A review of Casewise Diagnostics, and individual case studentized deleted residuals indicated no significant outliers, with no standardized residuals greater than ±3 standard deviations.

Assumption Tests

Assumption of Independence of Observations

The multiple regression requires that the assumption of independence of observations be met The Durbin-Watson statistic can range from 0 to 4. A value of approximately 2 indicates that there is no correlation between residuals. There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.591; therefore, the Assumption of Independence of Observations was met. See Table 5.

Table 5

Model Summary[b]

Model	*R*	R^2	*Adj* R^2	*SE Est*	Durbin-Watson
1	.112[a]	.013	-.004	2.05	1.591

Note: a. = Predictor Variables: CPTCI, PADS; b. = Criterion Variable: AMS

Assumption of Linearity

The multiple regression requires that the assumption of linearity be met. Linearity was examined using scatter plots. The assumption of linearity was met as a linear relationship between the dependent variable and the independent variables collectively, and each independent variable is indicated. See Figure 1 for the scatter plot indicating the linear relationship between variables collectively, and Figures 2 and 3 for the scatter plots for the dependent variable and each independent variable.

Figure 1

Scatter Plot of Studentized Residual by Unstandardized Predicted Values

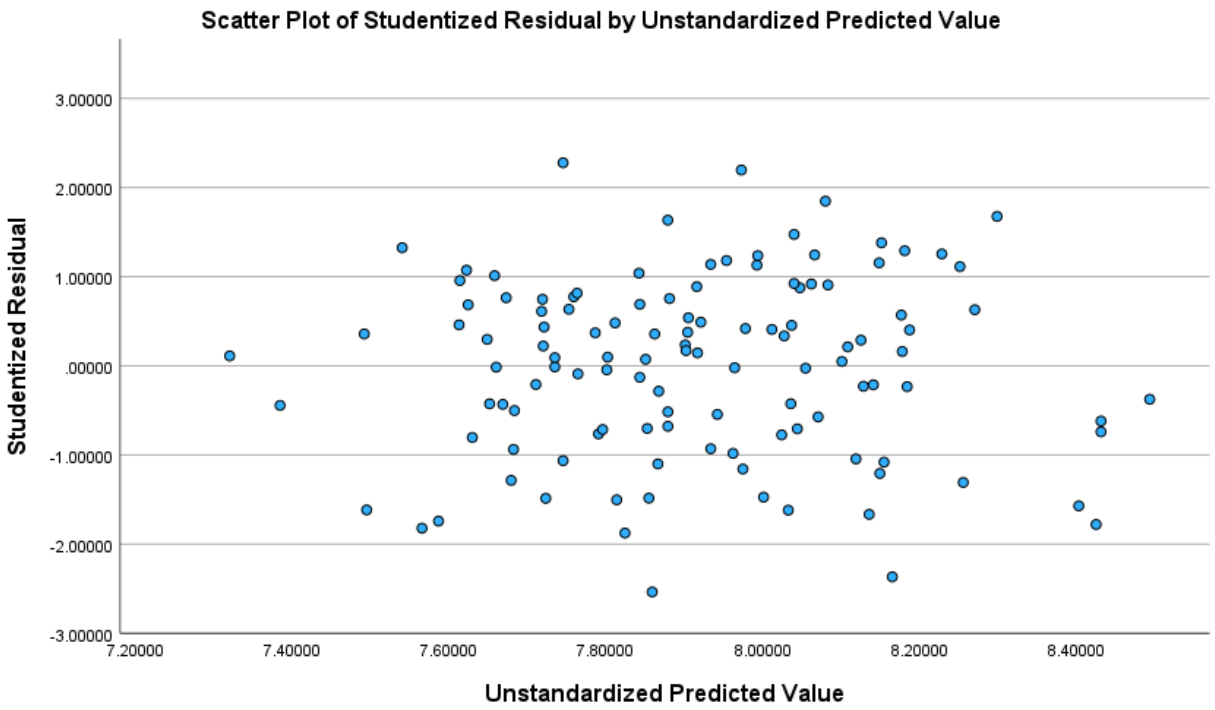


Figure 2

Partial Regression Plot: CPTCI

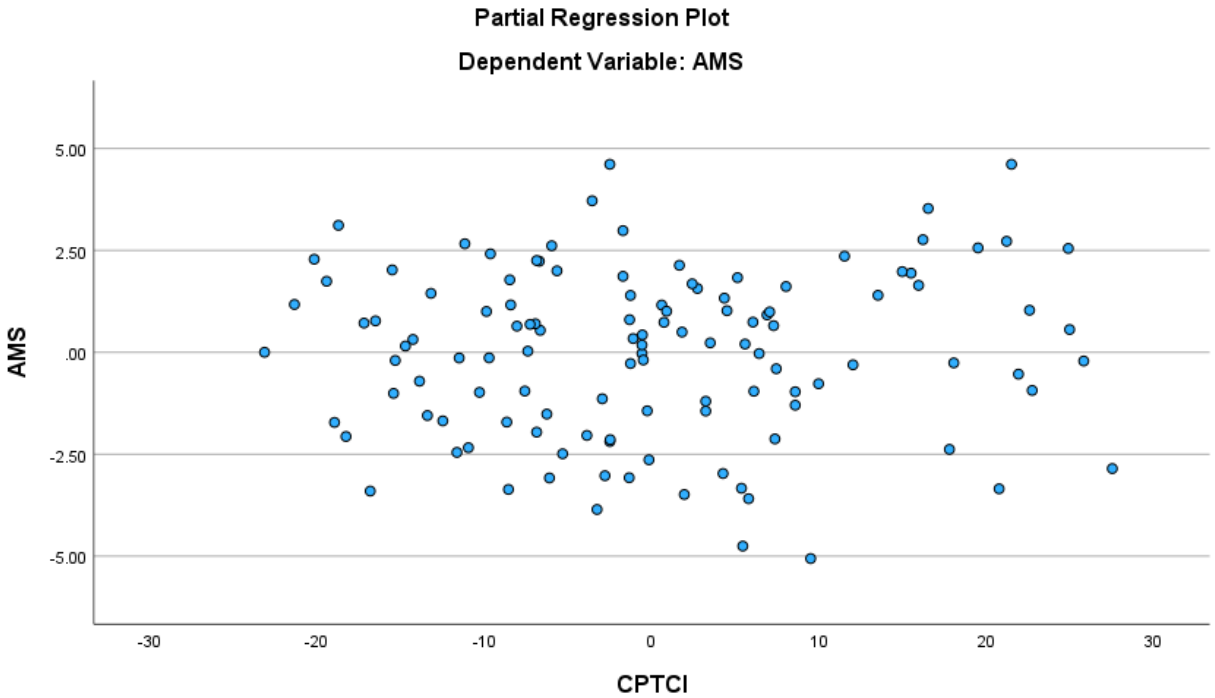
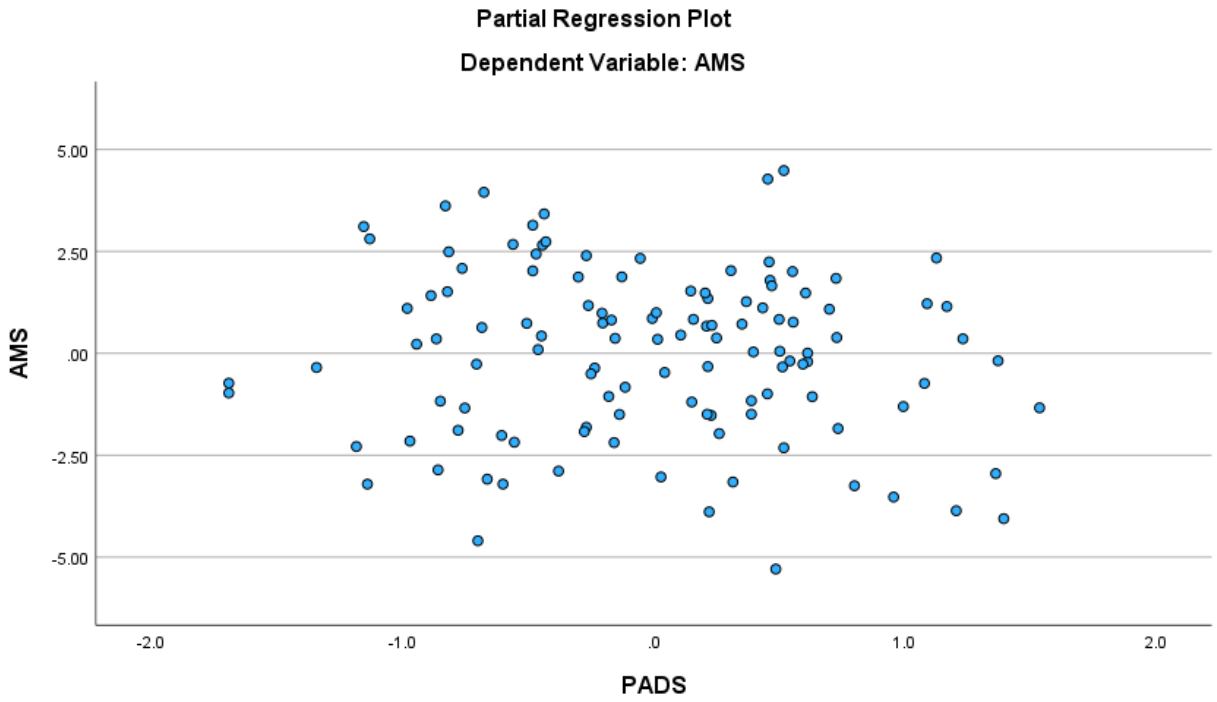


Figure 3

Partial Regression Plot: PADS



Assumption of Homoscedasticity of Residuals

The assumption of homoscedasticity is that the variance is equal for all values of the predicted dependent variable; the spread of the residuals will not increase or decrease as one moves across the predicted values (i.e., the points of the plot will exhibit no pattern and will be approximately constantly spread). There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values; the points of the plot did not demonstrate any pattern and were generally evenly spread; therefore, the assumption of homoscedasticity was met. See Figure 1.

Assumption of the Absence of Multicollinearity

A Variance Inflation Factor (VIF) test was conducted to ensure the absence of multicollinearity. This test was run because if a predictor variable (x) is highly correlated with

another predictor variable (x), they essentially provide the same information about the criterion variable. If the VIF is too high (greater than 10), then multicollinearity is present. Acceptable values are between 1 and 5. The absence of multicollinearity was met between the variables in this study, with the VIF at 1.002. Table 6 provides the collinearity statistics.

Table 6

Collinearity Statistics

Model	Tolerance	VIF
CPTCI	.998	1.002
PADS	.988	1.002

Note: CPTCI = Child Post-Traumatic Cognitions Inventory; PADS = Persecution and Deservedness Scale

Assumption of No Significant Outliers

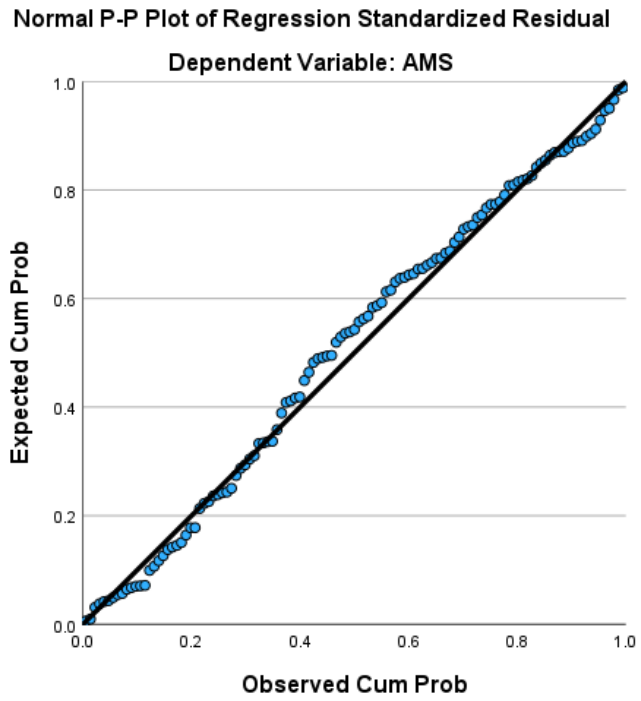
A review of Casewise Diagnostics, and individual case studentized deleted residuals indicates no significant outliers, with no standardized residuals greater than ±3 standard deviations.

Assumption of Normal Distribution of Residuals

The assumption is met as a normal distribution of residuals is aligned along the line of fit. See Figure 4.

Figure 4

Normal P-P Plot of Regression Standardized Residual



Null Hypothesis

A multiple regression analysis was conducted to see if there was a relationship between the criterion variable of academic motivation and the linear combination of the predictor variables of trauma and persecution as indicated by scoring on the respective scales. The researcher failed to reject the null hypothesis at the 95% confidence level where $F(2, 116) = .736$, $p = .481$. There was not a significant relationship between the linear combination of the predictor variables (trauma and persecution) and the criterion variable (academic motivation). Table 7 provides the regression model results.

Table 7

ANOVA

Model 1	*SS*	*df*	*MS*	*F*	Sig
Regression	6.175	2	3.09	.736	.481[b]
Residual	486.721	116	4.196		
Total	492.895	118			

Note: a. = Dependent Variable: AMS; b. = Predictor Variables: CPTCI, PADS

R^2 for the model was .013, a small effect size (Cohen, 1988), which indicates that about 1% of the variance of criterion variable can be explained by the linear combination of predictor variables. Table 5 provides a summary of the model.

CHAPTER FIVE: CONCLUSIONS

Overview

This chapter begins with a discussion of the findings of the study. Data analysis and interpretation are reviewed for each variable as well as outcomes related to the research question, which is examined through the lenses of the results of the study, related studies, literature and theory. Implications of the study for this and similar populations are considered. Limitations of the study are also discussed as well as recommendations for future research.

Discussion

The purpose of this quantitative, non-experimental, predictive correlation study was to determine if there was a predictive relationship between academic motivation and the linear combination of trauma and persecution on Afghanistan female high school students.

Though findings of the study did not show a significant correlation between the linear combination of trauma and persecution and academic motivation, coefficient analysis suggests relationships, though not statistically significant, between each of the predictor variables and the criterion variable when examined independently. As trauma increases so does motivation; as persecution increases, motivation decreases. There was also a finding of significant clinical PTSD symptomology (McKinnon et al., 2016) in 86% of the sample, which is generally comparable to other studies investigating clinical PTSD symptoms among school children in war zones such as Afghanistan, Gaza, Iraq and Syria (Ahmadi et al., 2023; AlSharif et al., 2024; Kanan & Leao, 2022; Trani & Bakhshi, 2013; Veronese & Pepe, 2020). The high rates are remarkable, though not unexpected, while compared to 7-15% clinical PTSD rates among youth in non-conflict countries such as the US, UK, and Australia (Alisic et al., 2014; McLaughlin et al., 2013). Also remarkable is that despite the high rate of statistically significant clinical-level

PTSD found in this study, and also findings in this study of persecutory thought mean results higher than the mean results found in similar studies (Melo et al., 2009), academic motivation means of the study sample were commensurate with academic motivation means found among students in studies in non-conflict countries (Hegarty, 2010; Vallerand et al., 1992-1993), which is consistent with resiliency and self-determination theory (Garmezy, 1991; Ryan & Deci, 2020).

RQ1: How accurately can academic motivation be predicted from a linear combination of trauma and persecution factors for Afghanistan female high school students?

A multiple regression analysis was conducted to see if there was a relationship between the criterion variable of academic motivation and the linear combination of the predictor variables of trauma and persecution as indicated by scoring on the respective scales. The researcher failed to reject the null hypothesis; there was not a significant relationship between the linear combination of the predictor variables (trauma and persecution together) and the criterion variable (academic motivation).

The findings are revealing of the difficulties inherent in the complexity of academic study in an unstable war environment with limited access, and extensive tribal, cultural and societal influences (Kovess-Masfety et al., 2022; Shayan, 2015). As an example, Kovess-Masfety et al. (2022), in their study across 16 Afghan provinces, found that while mental health resources overall were relatively accessible in Afghanistan compared to similar countries, researchers were unable to access some of the more dangerous areas, which were excluded from the study, and there were regional variations; those that lived in the most dangerous areas, and potentially had more exposure, had the least access to mental health care.

Despite the decades-long war in Afghanistan, its strict cultural patriarchal society, and the worldwide condemnation of the Taliban’s oppressive policies with regard to girls and education,

there is limited information and inconclusive findings available in the literature on the impact of war trauma and gender persecution on Afghan girls; further and continued examination is needed that will add to the limited body of knowledge regarding this oppressed and vulnerable population (Akbari & True, 2022; Kovess-Masfety et al., 2023). In this study, while strict controls were present, there were underlying mental health, cultural, tribal, familial, linguistic, economic and other variations beyond trauma and persecution influences contributing to a complicated day-to-day environment; there was also the very real risk and stress the students are under on any given day attending an underground school. There is the sense that one has penetrated only the surface of this quite unique and complex problem. While substantial data were collected, providing a foundation, as well as a baseline for further research, and allowing for at least an initial understanding of the relationships among the three study variables, there is much more to be explored.

Coefficient analysis though is also revelatory. Though neither predictor variable slope coefficient is considered statistically significant, examining the slope coefficient for the predictor variable of trauma while controlling for the predictor variable of persecution suggests a positive direction regarding the criterion variable of academic motivation, though the magnitude was small; as trauma increases, so does academic motivation. Though not statistically significant, trauma could still be useful as a predictor for academic motivation in this regression model. Examining the slope coefficient for persecution also suggests a relationship, though in a negative direction and also not statistically significant; as persecution increases, academic motivation decreases. Effect size was small, relative to the relationship of the linear combination of the two predictor variables to the criterion variable of academic motivation; however, there may be indication of stronger relationships among variables when considered independently.

Of note that while there was not a significant positive correlation between trauma and persecution combined and academic motivation, there was not a significant negative correlation, that is, as trauma and persecution combined increased, academic motivation did not decrease. In this study sample, the linear combination of trauma and persecution, while demonstrating results on each of the individual scales indicative of above average levels of trauma impact and persecutory thought, did not collectively depress academic means, which were actually generally comparable to students in non-conflict, western countries (Hegarty, 2010; Vallerand et al., 1992-1993).

On the AMS, overall motivation (self-determination index) scores range from -18, indicating very little self-determination to +18, indicating extreme self-determination; however, means on AMS studies with western student samples generally ranged from 7 to 10 (Hegarty, 2010; Vallerand et al., 1992-1993). The overall AMS mean with this sample was 7.9, with age means ranging from 7.64 to 9.01, which were comparable with other student studies, notably with western student samples.

Scoring on the CPTCI ranges from 25 to 100. A low score of 25 would indicate little or no trauma-related behavior, while a score of 100 would indicate extreme trauma-related behavior typical of children with severe PTSD. McKinnon et al. (2016), in studies with UK and Australian students, places the cutoff for significant clinical PTSD symptomology on the CPTCI, typical for children with PTSD, at 46-48. The sample mean for this study was 59.10, well above the McKinnion PTSD cutoff, with age means ranging from 55-62; of note is that 86% of the sample scored above the PTSD cutoff.

Mean scoring on the PADS ranges from 0 to 4.0, with a low score of 0 indicating little or no persecutory ideation, with a mean score of 4.0 indicating an extremely high level of

persecutory ideation. In the PADS validation study (UK and Portuguese students), the author reports means among non-clinical students in the 0.81 to 1.18 range, with means among clinical inpatients at 2.82 (Melo et al., 2009). The sample mean for this study was 1.69, with age means ranging from 1.30 to 1.96, well above means of the non-clinical samples. Tables 1-4 provide descriptive statistics for each variable.

Additionally, though findings of the study did not show a significant correlation between the linear combination of trauma and persecution and academic motivation, there was a finding of significant clinical PTSD symptomology (McKinnon et al., 2016) in 86% of the sample, which is generally comparable to other studies investigating clinical PTSD symptoms among school children in war zones such as Gaza, Iraq and Syria (AlSharif et al., 2024; Kanan & Leao, 2022; Veronese & Pepe, 2020). Trani and Bakhshi (2013), in their study across 34 Afghan provinces, examined the prevalence of mental distress among vulnerable groups (disabled, poor, and belonging to a minority ethnic group- representing about 60% of the Afghan population); they found that cultural factors, customs and beliefs in a war-related environment that exacerbates conditions can lead to isolation and less access to a social fabric important for support for vulnerable groups, and a significantly higher incidence of mental distress (86% for vulnerable groups compared to 29% for nonvulnerable groups; noted is that the sample in this study belongs to a minority group in an economically depressed part of the country). Additionally, a study of 376 Afghan adolescents following the Taliban takeover in August, 2021 found that 79% of the girls in the study met criteria for clinical PTSD and depression (Ahmadi et al., 2023). The high rates are remarkable, though not unexpected, while compared to 7-15% clinical PTSD rates among youth in non-conflict countries such as the US, UK, and Australia (Alisic et al., 2014; McLaughlin et al., 2013). Also remarkable is that despite the high rate of

statistically significant clinical-level PTSD found in this study, and also mean findings of persecutory thought higher than the mean results found in similar studies (Melo et al., 2009), academic motivation means of the sample were at or near academic motivation means found in studies in non-conflict countries (Hegarty, 2010; Vallerand et al., 1992-1993).

Important to this discussion are previous studies demonstrating resilient and self-determined behavior and relationships between trauma and persecution and motivation and academic success in Afghan students (Kovess-Masfety et al., 2023; Panter-Brick et al., 2015; Ryan & Deci, 2020). The academic resiliency of Afghan high school girls in the face of severe trauma and persecution (Kovess-Masfety et al., 2023), in the context of this study, was examined through the lenses of resiliency theory and self-determination theory (Garmezy, 1991; Ryan & Deci, 2020). Though the linear combination of trauma, as measured by the CPTCI, and persecution, as measured by the PADS, did not show a significant correlation with academic motivation as measured by the AMS, resiliency as the ability to positively adapt to adverse life experiences (Truffino, 2010), and the ability to establish and maintain functional competence despite interfering emotional factors (Bekhet, 2023; Garmezy, 1991; Kobiske & Bekhet, 2018) was demonstrated as evidenced by mean scale scores in relation to comparisons with AMS, PADS and CPTCI validation study means and related studies. Likewise effective motivational regulation in overcoming challenges, aligned with self-determination theory, was also evidenced by commensurate AMS mean scale scoring in comparison to similar AMS studies (Hegarty, 2010; Vallerand et al., 1993). Afghan students in this study, while demonstrating much higher rates of clinical-level PTSD and persecutory thought than their peers in non-conflict western countries, demonstrated similar levels of intrinsic academic motivation compared to their counterparts in those countries.

The core principle of resiliency is described as the ability to establish and maintain functional competence despite interfering emotional factors (Bekhet, 2023; Garmezy, 1991; Kobiske & Bekhet, 2018). Resiliency manifests consistently across several psychological profiles, including a sense of control over one's destiny, strong self-image and cognition, as well as expression of hope (Garmezy, 1991; Ryan & Deci, 2017). The results of this study have demonstrated that while indeed war trauma and persecution have impacted the students in this sample, while noting the negative coefficient direction for persecution and academic motivation, they as a group clearly demonstrate hope and resiliency in the face of that oppression as evidenced by overall scoring on the AMS.

SDT, as demonstrated by extensive research and application in a wide range of settings, examines how political, social, and cultural conditions impact personal, social, and psychological growth as well as overall wellness (Guay, 2022; Ryan & Deci, 2017, 2020). The underlying premise is that all humans are born proactive and have natural tendencies to overcome challenges while seeking to interact with others in understanding their environment. The students in this study, while facing seemingly insurmountable political, social and cultural oppression, rather than being overwhelmed, continue to strive toward success as demonstrated by AMS results. This is consistent with the study conducted by Panter-Brick et al. (2015), in finding that Afghan youth were effectively able to forget or repress traumatic events and maintain a steady state of resilience. The study is also consistent with findings by Kovess-Masfety et al. (2023) of a positive correlation between school attendance and a lower incidence of emotional problems for both boys and girls. Anecdotally, the fact that these female students daily risk beatings and detainment by the Taliban to attend an underground school speaks strongly to resiliency, hope and a motivation to effect change and make a difference in their lives and community.

Additionally, Kronberg et al. (2018) found that students with a more internally focused locus of control were more resilient, though they note that external factors may also contribute to stronger intrinsic motivation to succeed in a continuum of resilient behavior. Such findings have been noted with Afghan school children who have strong family support and positive school experiences to realize greater resilience than students with less external support; high school female students such as the ones in this study attending school typically realize greater resiliency (Kovess-Masfety et al., 2023).

Also, suggested here in the scoring on the CPTCI and PADS relevant to trauma and persecution and the study sample, are that war and civil unrest associate with mental health issues, particularly with school-aged children; Kovess-Masfety et al. (2023) found in their study of over 4000 households across Afghanistan, that Afghan children presented more than double the percentage of mental health problems than their peers across other regions in the world, to include high conflict middle eastern countries. However, they also found that school attendance was associated with lower rates of emotional problems, serving as protection from the trauma around the children. This study investigates female students voluntarily attending school despite their oppressive environment, which may very well contribute to their resilient behavior.

Though these students are attending school, with the assumption of family support, many of their peers are not. As of April 2023, 1.1 million high school-aged Afghan young women, and 80% of Afghan girls and young women of any school age were out of school (UNESCO, 2023). Shayan (2015) qualitatively examined the discrimination of girls regarding education in Afghanistan and the factors involved, to include Taliban oppression of rights, and traditional cultural persecution. The study calls for further research and greater awareness of the impact of a fundamentalist patriarchal society on education access for girls. Bamik (2018) likewise found

that the cultural norms evident in the conservative, patriarchal society in Afghanistan presents a greater challenge for girls accessing education than poverty and insecurity, as well as with working outside the home, leaving girls and women marginalized. The study calls for more research to help facilitate the transformation of cultural norms toward what would better benefit this society. Najibi and McLachlan (2023), in their study examining a sustainable future through education for Afghanistan women, found that investing in women's education can transform communities as well as the country, leading to greater economic growth and prosperity; the study calls for more research into both obstacles and enabling factors. Further research is essential in establishing an intervention platform to address the social, emotional and educational needs of Afghan female high school students (Jewkes et al., 2018).

There is a paucity of literature describing the impact of trauma and persecution specifically on young women and education in Afghanistan and in conflict countries around the world (Kovess-Masfety et al., 2023; Veronese & Pepe, 2020). Limited studies on the effect of war and trauma on school students across many settings for the most part have delivered conflicting results, investigating post-traumatic stress disorder (PTSD) as a predominant outcome, while at the same time, there are published studies indicating students develop healthy resilience and self-efficacy (Kovess-Masfety et al., 2023; Veronese & Pepe, 2020; Veronese et al., 2021). Veronese and Pepe (2020) found that research investigating the impact of war and violence on school children is limited and often contradictory and further research is needed, despite the constraining factors of limited access and risk for both researchers and participants due to inherent violence and restrictive cultural influences in conflict areas (Tan & Ineli-Ciger, 2023). This study, conducted on-site and in the direct midst of the current day-to-day oppressive reality of the Taliban (the local Taliban headquarters is located 500 meters from one of the

schools; Taliban public discipline in the community to include beatings is not infrequent) and cultural misogyny and related influences, perhaps captures the dynamic of trauma and persecution and its impact on Afghan female high school students better and more clearly than can be found currently in the literature. It adds to the limited literature in providing direct valuable insight into the impact of war trauma and persecution on female high school students in Afghanistan as it is occurring, and the resiliency and self-determination they demonstrate in the classroom and in their hope and dreams despite significant cultural and traditional barriers, in addition to their often violent and oppressive environment.

Implications

Due to the 40 years of conflict in the country, and limited past and current access to this dangerous environment for researchers, there is very little in the literature on the plight of Afghan high school girls and their ability to effectively cope and mitigate extreme adversity. More research is needed to understand how and to what degree this population develops resilience in the face of such severe hardship (Kovess-Masfety et al., 2023).

In Afghanistan, the Taliban has banned female students from attending school past the sixth grade, the only country in the world to do so, while implementing by policy and edict encompassing persecution of women and girls already suffering from significant cultural persecution, trauma, violence and poverty following decades of war and persecution (Razia, 2023; Tan & Ineli-Ciger, 2023).

Importantly, for women in an oppressive culture, autonomy as empowerment is critical to their emancipation and psychological well-being (Ryan & Deci, 2017, 2020). Understanding the social, cultural, and psychological influences driving the motivation or suppression of this population to challenge and overcome unique, severe trauma and persecution and education

denial is important in not only bolstering their own self-confidence and academic successes, it gives them a voice, and potentially serves as a catalyst for policy reform, and further needed research in the study of the systemic persecution of women and girls (Akbari & True, 2022; Kovess-Masfety et al., 2023; Qamar et al., 2022).

The current study follows recent research conducted regarding the impact of trauma and persecution on Afghanistan female students as well as school students in similar conflict countries and their resiliency to those adverse conditions, particularly with regard to academic motivation and success (Kovess-Masfety et al., 2022; Panter-Brick et al., 2015; Razia, 2023; Shayan, 2015; Veronese et al., 2021). This study adds to the limited body of knowledge as called for by earlier researchers, which is due primarily to limited access to school students in violent war zones (Kovess-Masfety et al., 2023; Panter-Brick et al., 2015; Shayan, 2015), by bringing to light resilient behavior in the face of oppression as represented by the study data. Regardless of the environment, these are youth suffering under conditions over which they have no control, and their plight and path to success is as critical as any other child. By examining the impact of trauma, and persecution on the academic motivation of female high school Afghan students, this study brings to light a more informed understanding of how children respond to extremely adverse circumstances and how that understanding might be applied in helping them succeed, individually and corporately in the classroom and in life, provide advocacy and a platform for mental health support, as well as providing a foundation for further study and application to children in similar circumstances. By examining the consistent levels of intrinsic motivation as demonstrated on the AMS, in light of the elevated levels of persecutory thought and levels of perceived trauma, wrought by their oppressive environment, as demonstrated by the PADS and CPTCI, and underscoring day-to-day observations and anecdotal evidence, a better

understanding is gained of a population that endeavors to persevere and not just survive but thrive. This is an invaluable aid and inspiration to educators, as well as inspiration for other students in similar environments, and importantly, to these students' peers who are not able to attend school. Teachers and others in this environment also must deal with an oppressive and traumatic environment, and the resiliency demonstrated by these students gives everyone hope; and where hope lies, so do dreams, which drive goals, and the motivation to accomplish those goals.

To further underscore the resiliency of the students in this study, the researcher is currently negotiating with the education ministry and several universities in a border country to allow students from the 2024 graduation class of one of the underground schools represented in this study into the country to study medicine, business and education, despite no national test exams or official transcripts from their private school, both banned by the Taliban. The students, prohibited from attending university in Afghanistan, and to even leave the country, would be required to travel covertly overland hundreds of miles from their rural villages in Afghanistan, leave their families and country, but yet are highly motivated, and plan to do so. Their plans then are to return to Afghanistan to bring much needed services to their community.

The study addresses an oppressed population that has captured the world's attention, and it is hoped findings will give these young women a voice that can be heard beyond the limited scope of their homes and villages, potentially impacting both local and national policymaking as well as international influence, resulting in inspiration, healing and hope for the young women and girls of Afghanistan, their community, and their country.

Limitations

The age breakout of means on each of the instruments administered demonstrated a range of scoring. Generally, the younger the age, the higher the level of persecutory thought, the higher the level of perceived trauma, and the lower the level of academic motivation. The level of maturity between a sixteen-year-old and a twenty-year old may be different in comparisons of groups. Future studies may want to narrow the age range to control that factor better in understanding the impact of persecution and trauma on academic motivation in a school population, i.e. with the focus on either the lower two grade levels or the higher two grade levels.

The sample was derived from two underground private schools in the same community, but with different principals and different teachers, with undoubtedly slightly different pedagogical approaches, though curricula are based on standard public school curriculum. Also, one school has been in operation as a private school, following the Taliban takeover, for two full years, while the other school opened its doors just 6 months ago. The school cultures may have differed and impacted instrument scoring, in particular with regard to motivation, which was noted in a comparison of AMS scoring by school. Controlling for those differences, perhaps in a larger sample involving multiple schools, may yield a more homogenous sample, with improved generalizability.

While stringent controls were in place in administering the instruments, to include a requirement for English fluency, and proctors available to explain instructions and translate if needed, the administration of instruments in the students first language of Dari may facilitate a more complete understanding of task demands for at least some of the sample.

Some girls attend school inconsistently due to cultural and familial restrictions (e.g. required to work in the fields, extreme poverty, security concerns with distances needed to travel

with most if not all students walking, some up to two hours one-way). This may have had an impact on academic motivation responses for reasons other than trauma and persecution. Future research should control for such factors to the extent possible.

School and birth records are incomplete, so ages could not always be confirmed; self-identification of age was accepted.

This study used a non-experimental correlation design, of value for exploring relationships between variables, and the degree and direction of the relationship, but does not provide definitive conclusions about causality between variables (Gall et al., 2007). For example, the relationships suggested in this study between the predictor variables of trauma and persecution, and the criterion variable of academic motivation do not provide conclusive evidence that either one or both predictor variables caused students to be more or less academically motivated. The relationships identified in this study regarding cause and effect could be explored more definitively using an experimental design (Gall et al., 2007).

Due to the difficulties inherent in the complexity of research in an unstable war environment with limited access, and extensive tribal, cultural and societal influences (Kovess-Masfety et al., 2022; Shayan, 2015), there were a number of possible confounding variables to include underlying mental health, cultural, tribal, familial, linguistic, economic and other variations beyond trauma and persecution contributing to a complicated day-to-day environment, and possibly influencing the criterion variable; there was also the very real risk and stress the students are under on any given day attending an underground school. Strict controls otherwise were in place, though some variance may be attributed to extraneous factors.

Recommendations for Future Research

More studies are needed on the impact of trauma and persecution on this population- not only is the literature limited in this regard, but the impact will undoubtedly continue to increase as the economy and access to basic services in Afghanistan continue to deteriorate, and as terror groups increase and violence increases, and as persecution of women continues, to include domestic violence and sexual abuse (Darwish & Wotipka, 2022). Their story needs to be told and not relegated to the trash heap of disinterest and forgotten news cycles. Further research includes:

1. Conduct future research exploring the individual variables of persecution and trauma and their impact on motivation, rather than a combined linear investigation. Coefficient analysis in this study suggests linear relationships when other predictor variables are controlled. Such research would provide a more precise picture of those relationships.
2. Conduct research using an experimental research design to more definitively explore cause and effect among the variables of persecution, trauma and academic motivation.
3. The above average PTSD and persecutory thought rates are linked to mental health concerns, which is consistent with many studies (Qamar et al., 2022). Further research in this area, particularly in rural Afghanistan would provide valuable data in establishing a platform of mental health care.
4. Recommendations for qualitative and epidemiological research as suggested in related studies (Brodsky et al., 2012; Kovess-Masfety et al., 2023; Panter-Brick et al., 2015), and based on observational data by the researcher over several years,

would obtain a better understanding of the complex factors in motion in this quite unstable psychosocial environment, and to test the current findings in depth.

5. Direct comparison to population samples in non-conflict countries utilizing the same instruments regarding the impact of trauma and persecution on the academic motivation of female high school students, may deliver a clearer understanding of the motivational depth and processes of the Afghan students.
6. Future studies may want to narrow the age range to control those factors better in understanding the impact of persecution and trauma on academic motivation in a school population, i.e. with the focus on either the lower two grade levels or the higher two grade levels.

Studies to further explore the processes and possibly causal factors of the motivations of this population, considering the current study findings, would undoubtedly shed further light on a learning environment that in many respects is unique in the world.

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APPENDICES

Appendix A: Permission To Use the Academic Motivation Scales (AMS)

RE: Permission Request
Sam Tion, Michael <xxx> Wed, Jan 31, 2024 at 11:09 AM

To: "xxx>

Hello Thomas,

Please find the different versions of the AMS on our website: https://www.lrcs.uqam.ca/en/scales/ (including the High school version) or attached for the College version.

You will see that the Scoring key is at the end of the scale (document). The articles attached will help you understand and interpret the scale so feel free to have a good look at them.

We would really appreciate if you use the appropriate reference in your work.

1/31/24, 1:34 PM Gmail - RE: Permission Request

Thank you very much. Take good care,

Michael

---------- Forwarded message ---------
From: Thomas, Gary L <xxx>
Date: Wed, Jan 31, 2024 at 3:50 PM

Subject: Permission Request

To: xxx>

Dear Dr. Vallerand,

I am currently a doctoral candidate at Liberty University and came across your Academic Motivation Scale in my research. I would like to request permission to use it in my dissertation research study.

Of course full attribution will be provided.

Thank you for your time and attention.

Sincerely,
Gary Thomas, MA, EdS
PhD Candidate, Educational Leadership
School of Education
Liberty University, Lynchburg, VA USA

Appendix B: Permission To Use the Child Post-Traumatic Cognitions Inventory (CPTCI)

RE: Permission Request
1 message

Richard Meiser-Stedman (MED - Staff) <xxx> Fri, Feb 2, 2024 at 9:40 AM

To: "Thomas, Gary L" <xxx>

Go for it Gary!

BW
Richard

From: Thomas, Gary L <xxx>

Sent: Friday, February 2, 2024 7:38 PM

To: Richard Meiser-Stedman (MED - Staff) <xxx>

Subject: Permission Request

Dear Dr. Meiser-Stedman,

I am currently a PhD candidate at Liberty University, and came across your Child Post-Traumatic Cognitions Inventory (CPTCI) in my research. I would like to request permission to use it and the CPTCI-S in my dissertation research study.

Of course full attribution will be provided.

Thank you for your time and consideration.

Sincerely,

Gary Thomas, MA, EdS
PhD Candidate, Educational Leadership
School of Education
Liberty University, Lynchburg, VA USA

Appendix C: Permission To Use the Persecution and Deservedness Scale (PADS)

Sara Melo <xxx> Tue, Feb 20, 2024 at 11:43 PM

To: "Thomas, Gary L" <xxx>

Hi Gary,

This is to confirm my agreement for you to use the PaDS in your research.
Would you please send me an outline of your research project?

Many thanks.

Best wishes,

Sara

From: Thomas, Gary L <xxx>

Sent: Thursday, February 15, 2024 7:09 PM

To: Sara Melo <xxx>

Subject: Re: [External] PADS

Hi Dr. Melo.

Thank you for responding to my inquiry. I am currently a PhD candidate at Liberty University, USA, and came across your Persecution and Deservedness Scale (PaDS) in my research. I would like to request permission to use it in my dissertation research study.

Of course full attribution will be provided.

Thank you for your time and consideration.

Sincerely,

Gary Thomas
Gary Thomas, MA, EdS
PhD Candidate, Educational Leadership
School of Education
Liberty University, Lynchburg, VA USA

Appendix D: Institutional Review Board Approval

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

April 22, 2024

Gary Thomas
Rebecca Lunde

Re: IRB Approval - IRB-FY23-24-1592 INVESTIGATING THE PREDICTIVE RELATIONSHIPS BETWEEN TRAUMA AND PERSECUTION AND ACADEMIC MOTIVATION WITH FEMALE AFGHAN HIGH SCHOOL STUDENTS: A CORRELATIONAL STUDY

Dear Gary Thomas, Rebecca Lunde,

We are pleased to inform you that your study has been approved by the Liberty University Institutional Review Board (IRB). This approval is extended to you for one year from the following date: April 22, 2024. If you need to make changes to the methodology as it pertains to human subjects, you must submit a modification to the IRB. Modifications can be completed through your Cayuse IRB account.

Your study falls under the expedited review category (45 CFR 46.110), which is applicable to specific, minimal risk studies and minor changes to approved studies for the following reason(s):

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.)

For a PDF of your approval letter, click on your study number in the My Studies card on your Cayuse dashboard. Next, click the Submissions bar beside the Study Details bar on the Study Details page. Finally, click Initial under Submission Type and choose the Letters tab toward the bottom of the Submission Details page. Your stamped consent form(s) and final versions of your study documents can be found on the same page under the Attachments tab. 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.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

G. Michele Baker, PhD, CIP
Administrative Chair
Research Ethics Office