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Grit, Resilience, Well-being, and Family Structure's Relationship with College Attendance

Joshua Ireland
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Walden University

College of Psychology and Community Services

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Joshua R. Ireland

has been found to be complete and satisfactory in all respects,
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the review committee have been made.

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Walden University
2024

Abstract

Grit, Resilience, Well-being, and Family Structure's Relationship with College

Attendance

by

Joshua R. Ireland

MS, Walden University, 2018

BA, Southern Oregon University, 2010

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

February 2024

Abstract

Family structure can influence level of risk children face and their likelihood of attending college, despite many benefits associated with higher education. The Resilience Theory suggests that protective factors mitigate risk exposure and help individuals recover from negative experiences. This study involved examining relationships between family structure, resilience, well-being, grit, and the decision to pursue higher education. A quantitative approach was used with a resilience framework to explore possible correlation between traits of resilience, grit, well-being, and pursuit of higher education. Participants were divided into four groups based on family structure and college attendance. Data were collected through self-report measures using SurveyMonkey. Discriminant function analysis and ANOVA were used to analyze data. Results of discriminant function analysis were not statistically significant; however, the ANOVA showed that college graduates from dual parent homes experienced less significant decreases in terms of well-being scores compared to other groups. This suggests individuals from single parent homes and those from dual parent homes who did not graduate college experienced larger decreases in well-being. However, individuals from single parent homes did not differ when divided by college attendance. This study contributes to positive social change by further exploring factors that contribute to disadvantages of growing up in single parent homes and not attending college.

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Dedication

I dedicate this dissertation to my loving and supportive wife, Betty. Your unwavering belief in my abilities, endless patience, and constant encouragement have been the driving force behind my pursuit of knowledge and the successful completion of this doctoral journey.

Throughout the years you have given me unconditional love, understanding, and motivation even during the most challenging times. Your sacrifices and selflessness have allowed me to dedicate countless hours to research and writing, while knowing that you were always there, by my side, offering emotional support and a listening ear.

In addition to your unwavering support of my educational journey, you have been a phenomenal partner in every aspect of our lives. You have managed our household and eased my burdens whenever possible. Your understanding during the times when my attention was absorbed by research, or the meticulousness of writing has been remarkable. Thank you.

I would also like to dedicate this dissertation to my grandmother Dorine Ireland, whose love, support, and guidance have been instrumental in shaping the person I am today. My grandmother has been a constant source of support in my life, providing words of encouragement and wisdom that have given me the determination to overcome any obstacle. Her unconditional love has been a constant comfort and has fueled my ambition to pursue this academic journey. Her inspiring stories of resilience and grit have taught me the value of hard work and dedication.

I am forever grateful for the sacrifices my grandmother has made to ensure my happiness and success. She has never stopped advocating for me and has been my biggest cheerleader. Her belief in me has given me the confidence to believe in myself and pursue my goals. This dissertation is a testament to my grandmother's love and the impact she has had on my life. She has shown me the importance of family, resilience, and grit. I dedicate this work to her, hoping to make her proud and honor the values she has instilled in me.

Thank you, Grandma, for always looking out for me and believing in me, even when it seemed like I was off course. I love you with all my heart, and this dissertation is dedicated to you.

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Chapter 1: Introduction to the Study

Many high school graduates go on to pursue a higher education degree.

According to the National Center for Education Statistics (NCES, 2021), over 19 million Americans attended institutions of higher education in 2018. For most of these people, the choice to pursue higher education is motivated by the possibility of a good job (Strada-Gallop, 2018). A higher education degree is associated with higher wages and increased job security (BLS, 2020). College graduates also tend to be healthier (Baum, 2017). Despite these benefits, a significant number of Americans do not pursue higher education degrees. One influential factor which affects a person's likelihood of pursuing higher education is their family structure. Some people can experience risks associated with growing up in a single parent home and go on to pursue a higher education degree. Most people raised in a single parent home do not go on to pursue a higher education degree (Huang et al., 2017; Tobishima, 2018; Tompsett & Knoester, 2023; Wasserman, 2020).

Certain traits within individuals may allow them to succeed in college where their counterparts do not. Resilience contributes to ability to rebound from adversity (Calo et al., 2019). While grit promotes resilience in individuals and well-being has been positively associated with grit, resilience, and academic success (Calo et al., 2019; Jumat et al., 2020; Mason, 2018; Wilcox & Nordstokke, 2019). This study involved exploring grit, resilience, and well-being in college students and how family structure affects those traits. Results of this study could provide a starting point for future research regarding developing interventions to promote education regardless of risk factors.

Chapter 1 contains an overview of the proposed research study, beginning with background information on effects of higher education, well-being, grit, resilience, and family structure. Chapter 1 also contains a description of the problem I addressed and the purpose for studying this problem. Key questions in this research are also detailed. Chapter 1 includes information about the Resilience Theory, the theoretical framework for this study.

Background

Higher education can have a profound influence on a person's life. This influence can have ripple effects that influence families and communities. For many Americans, career advantages are the primary motivation for pursuing higher education (Strada-Gallop, 2018). Career advantages associated with higher education are significant. College graduates are 56% less likely to face unemployment (BLS, 2020). College graduates also earn 66% more than those with only a high school diploma (BLS, 2020). College graduates make more on each paycheck and are less likely to face financial hardships associated with unemployment.

While economic advantages of higher education are significant, there are other advantages associated with college attendance. Baum (2017) suggested people who graduate high school and go on to higher education are healthier than those that do not go on to higher education. Specifically, Baum suggested those who do not pursue higher education tend to be more obese than their collegiate counterparts. This is significant because obesity places individuals at increased risk for diabetes, heart disease, many forms of cancer, and all causes of death (Centers for Disease Control, 2020). In addition,

college graduates face fewer effects of aging including cognitive impairment, disability, and decreased physical functioning (McLaughlin et al., 2020).

The advantages of higher education individual are clear. However, these advantages can extend to the families. Every advantage experienced by college graduates is passed to their children (Cataldi et al., 2018; Demir-Dagdas et al., 2018; Muñoz & Del Picó, 2020). Children of college graduates are more likely to attend college, which automatically provides them with all associated benefits (e.g., higher income, more job security, better health, and increased civic involvement). Higher education attendance can not only change the trajectory of an individual's life, but also lives of subsequent generations.

Effects of educational attainment extend even further than individual college graduate or their families. College attainment has national and global effects. College graduates are more involved in their communities in terms of voting and volunteering. Perrin and Gillis (2019) found college graduates were more likely than nongraduates to vote in both national and local elections. College graduates show more civic engagement, political knowledge, and engagement in volunteer work (Perrin & Gillis, 2019; Teague, 2015). As a result, a nation's educational attainment is an important factor in terms of the country's economic strength and social well-being (Teague, 2015).

Family structure refers to the ways different societies characterize families (Karin, 2021). In the U.S., the nuclear family is the most common family structure, consisting of a mother, a father, and one or more children. While this arrangement defines the most common family structure, 44% of families in the U.S. have only one parent in the home

(Federal Interagency Forum on Child and Family Statistics, 2020). This number has been increasing from 11.8% of children living in single parent homes in 1968 to 25.5% of children living in single parent homes in 2020 (United States Census Bureau, 2021). The number of parents in the home can have profound effects on children. Single parents have fewer resources to dedicate to their children, both economically and emotionally (Wasserman, 2020). By having only one household income, single parents tend to have a lower socioeconomic status than their dual parent counterparts. Kalil and Ryan (2020) claimed socioeconomic status has a significant correlation with intellectual stimulation in the home. For instance, a 4-year-old in a lower socioeconomic home could hear up to 34 million fewer words (Kalil & Ryan, 2020). This does not mean fewer words are spoken in their presence, but rather fewer words are spoken directly to them. Fewer words spoken to the child may lead to weaker language skills. In addition, families of higher socioeconomic status tend to engage in other activities that positively influence intellectual development such as reading to their children and providing educational activities (Kalil & Ryan, 2020; Wasserman, 2020). These differences are associated with an increased risk of poor academic performance (Huang et al., 2017; Tobishima, 2018; Wasserman, 2020).

One important influence on college attendance and performance is family structure (Huang et al., 2017; Tobishima, 2018; Wasserman, 2020). Children from single parent homes are also less likely to pursue higher education. Having only one parent in the home is associated with risk factors that affect well-being, likelihood of college attendance, and college performance (Huang et al., 2017; Tobishima, 2018; Wasserman,

2020). Children from divorced families are less likely to pursue higher education and when they do, are less likely to persist through to graduation (Soria et al., 2018). Since coming from a single parent home has been shown to impact college attendance, variables that could increase resilience should be researched.

One researched variable that has influenced children from single parent homes to go on to pursue higher education is resilience. Resilience is the ability to rebound from situations that cause mental distress (Calo et al., 2019; Smith et al., 2008). Resilience may be a key characteristic of successful college students (Calo et al., 2019; Hernández et al., 2019; Seppälä et al., 2020). College students with higher levels of resilience perform better in higher education (Hernández et al., 2019). Understanding assets and resources that lead to resilience is important when considering students' ability to get through college (Calo et al., 2019; Seppälä et al., 2020).

One important asset for the promotion of resilience is grit (Jumat et al., 2020). Grit is the ability to have passion and perseverance when pursuing long-term goals (Duckworth et al., 2007). Grit involves diligent effort and prolonged interest toward a goal despite setbacks and delays. Grit has been positively correlated with resilience as a protective factor (Calo et al., 2019; Jumat et al., 2020). Calo et al. (2019) suggested grit is a promotive factor for resilience in individuals. Additionally, grit and resilience have been associated with well-being and academic success (Jumat et al., 2020; Mason, 2018; Wilcox & Nordstokke, 2019).

An important correlate of resilience and grit is well-being. Well-being is the subjective rating of life satisfaction (Ryff, 1989). Well-being depends on several factors

including self-acceptance, purpose in life, and positive relations with others, and can be understood as a measure of happiness (Ryff, 1989). Success in higher education is positively correlated with grit and well-being (Mason, 2018; Wilcox & Nordstokke, 2019).

Understanding if resilience, grit, and well-being are significantly different among those who pursue higher education versus those who do not could provide an avenue for promoting higher education attendance among all children, regardless of number of parents in the home. Studies have not looked at resilience, grit, and well-being among children from single parent homes who go on to pursue higher education versus those who do not.

Problem Statement

Attending higher education has many significant advantages. Despite these benefits, many people do not pursue postsecondary education. In the U.S., 61.3% of people between 18 and 24 do not attend college (NCES, 2023). Internationally, the U.S. was ranked 21st in terms of 19-year-olds who enrolled in postsecondary education (NCES, 2017). Resilience, grit, and well-being are important factors in terms of attending and completing college (Calo et al., 2019; Hernández et al., 2019; Jumat et al., 2020; Seppälä et al., 2020).

Another important influence on higher education attendance and completion is family structure (Huang et al., 2017; Tobishima, 2018; Wasserman, 2020). People raised in single parent homes are less likely to attend college (Soria et al., 2018). Furthermore, when these individuals do pursue higher education, they are less likely to persist through

to graduation (Soria et al., 2018). Despite exposure to many of the same risks, some people raised in single parent homes do attend and graduate from college. This suggests that people who grew up in single parent homes and successfully completed postsecondary education would score higher on grit, well-being, and resilience scales than those who grew up in dual parent homes or those who grew up in single parent homes.

Purpose of the Study

The purpose of this correlational quantitative study was to examine relationships between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education. I looked at how profiles of grit, resilience, and well-being differentiate individuals between 18 and 24 raised in single parent versus dual parent households who attended college and those who did not. I intended to understand factors that promote achievement in early adulthood despite exposure to risk during formative years and highlight potential areas for future researchers to develop interventions for parents that would help promote grit and resilience regardless of family structure.

Research Question and Hypotheses

RQ: Is there a relationship between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education?

H₀: There is no relationship between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education.

H_a: There is a relationship between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education.

Theoretical Framework for the Study

I used the Resilience Theory as a framework. The Resilience Theory involves promotive factors and how they influence the trajectory of human development (Zimmerman, 2013). Promotive factors are positive variables in a person's life that facilitate healthy development despite risk exposure. There are two categories of promotive factors: assets and resources (Fergus & Zimmerman, 2005). Resources are factors that are external to the individual such as parental support. Assets are factors within the individual such as self-esteem. According to Fergus and Zimmerman (2005), promotive factors operate in three different modes. The first of these three modes mitigates risk by protecting against the risk or promoting positive development before exposure to the risk. The second mode is promotive factors can also compensate for risk by acting in direct opposition to the risk. Finally, promotive factors can also build resilience through moderate risk exposure. Moderate exposure to risk allows the individual to have the experience of overcoming the risk which in turn influences how they cope with hardships in the future. Grit has been shown to promote resilience as a protective factor against risk (Jumat et al., 2020). Like resilience, grit has also been shown to have a positive correlation with academic achievement (Calo et al., 2019; Hernández et al., 2019; Seppälä et al., 2020). Growing up in a single parent home exposes individuals to a host of risks that affect academic performance and attainment (Huang et al., 2017; Tobishima, 2018; Wasserman, 2020). Thus, the Resilience Theory was an appropriate framework for this research because resilience was suspected to be an

important trait among individuals who pursue higher education despite facing risks associated with family structure.

Nature of the Study

I aimed to understand if there is a relationship between grit, resilience, well-being, family structure, and the decision to pursue higher education. To determine if a relationship exists, a quantitative correlational research design was used. Data were gathered using self-report measures. The Short Grit Scale (Grit-S) was used to measure grit. The Brief Resilience Scale (BRS) was used to measure resilience and the Psychological Well-being Scale (PWB) was used to measure well-being. The population consisted of 341 individuals between 18 and 24 divided into four groups according to family structure and higher education attendance. Groups one and two consisted of people raised in single parent homes who either did or did not pursue higher education. Groups three and four consisted of people who were raised in dual parent households who either did or did not pursue higher education. Data were collected using the online SurveyMonkey audience tool. Once gathered, data were analyzed using a discriminant function analysis. Discriminant function analysis is a type of multivariate analysis that is used to provide more than one solution. In this study, there are four groups: those raised in single parent homes who did not pursue higher education those raised in dual parent homes who did not pursue higher education, those raised in single parent homes who did pursue higher education, and those raised in dual parent homes who did pursue higher education. Discriminant function analysis then was used to provide three different solutions or answers to the research question, and statistically significant solutions were

interpreted. In addition to discriminant function analysis, three separate factorial ANOVA tests, one for each quantified variable, were conducted to indicate group mean differences and interaction effects.

Definitions

These terms are defined as they are used throughout this study:

Family structure: Family structure refers to the ways different societies characterize families (Karin, 2021).

Grit: Ability to have passion and perseverance toward long-term goals (Duckworth et al., 2007).

Higher education: Formal learning beyond a high school level. It most frequently takes the form of college. Higher education is typically designed to offer very specialized coursework, allowing students to study particular fields in depth (Kalso, 2020).

Resilience: Ability to rebound from situations that cause mental distress (Calo et al., 2019).

Single parent Household: Households with children in which only one parent is present (Link, 2021).

Dual Parent Household: Group of people who are united by ties of partnership and parenthood consisting of a pair of adults and their socially recognized children. Typically, but not always, adults in a nuclear family are married. Although such couples are most often a man and a woman, the definition of the nuclear family has expanded with the advent of same-sex marriage. Children in a nuclear family may be the couple's biological or adopted offspring (Britannica, 2015).

Well-being: Well-being depends on several factors including self-acceptance, purpose in life, and positive relations with others, and can be understood as a measure of happiness among individuals (Ryff, 1989).

Assumptions

This research is based on a few assumptions. First, I assumed grit, resilience, and well-being would be different among the four groups. Furthermore, that there are differences in grit, resilience, and well-being scores between those who are successful in higher education and those who are not. Second, I assumed that the chosen methodology was most suitable for addressing the research questions. Third, I assumed that participants understood questions that were asked of them and answered honestly when completing surveys.

Scope and Delimitations

Participants were grouped according to family structure and participation in higher education. Family structure has a significant effect on academic achievement (Huang et al., 2017; Tobishima, 2018; Wasserman, 2020). For example, growing up in a single parent home is associated with more behavior problems and lower academic performance in children, particularly boys (Wasserman, 2020). Grit and resilience are consistently associated with academic achievement suggesting they play an important role in the academic success (e.g., graduating from college) of students pursuing higher education degrees (Calo et al., 2019; Hernández et al., 2019; Seppälä et al., 2020). Well-being is also consistently associated with student who get good grades and who graduate from their program of study (Mason, 2018; Wilcox & Nordstokke, 2019). Thus, the

purpose of this research was to determine if family structure correlated with levels of grit, resilience, and well-being among individuals pursuing higher education versus those who did not. Also, this research was restricted to participants between 18 and 24. This is the only delimitation in the study because everyone between 18 years old and 24 years old either did or did not graduate from a college. Likewise, everyone between 18 years old and 24 years old either did or did not grow up in a single parent home.

Limitations

One limitation of this study is use of Internet-based survey tools. This necessarily limits the pool of possible participants to people who have an online presence and are familiar with the survey platform. Another limitation is the self-reported nature of the data-gathering process. Participants may not answer questions accurately. This could be due to not understanding questions. Survey participants could also seek to provide answers to do well on the test rather than accurately describe themselves. Answers could also be inaccurate with respondents seeking to represent a certain image of themselves. To avoid these limitations, participants were provided instructions that directed them to answer as truthfully as possible and explained why honest answers are important. It was also explained to participants that there was no correct answer.

Significance

This study expanded on the gap in existing research by exploring how grit, resilience, and well-being correlate with family structure and effects on engagement in higher education. The goal was to understand if higher levels of grit, resilience, and well-being mitigated risks associated with growing up in single parent homes. I focused on

participants between 18 and 24 and divided them according to college attendance and family structure. Growing up in a single parent home presents several risks (e.g., lower financial resources, lower parental involvement, increased behavior problems, and lower academic performance) that can influence the choice to pursue postsecondary education and future economic status (Huang et al., 2017; Soria et al., 2018; Tobishima, 2018; Wasserman, 2020). Resilience has been positively associated with academic achievement and well-being, acting as a mitigating factor against risks (Hernández et al., 2019). The perseverance aspect of grit promotes resilience as it is the quality of proceeding despite challenges or setbacks in addition to being positively associated with academic achievement and well-being (Jumat et al., 2020; Mason, 2018; Wilcox & Nordstokke, 2019).

Benefits of higher education are significant and affect multiple levels of society. Individuals, their families, their communities, and the U.S. all benefit from participation in higher education. Soria et al. (2018) found that 64.1% of people raised in single parent graduated in four years compared to a graduation rate of 75.2% for people from dual parent homes. Individuals raised in single parent homes account for 29% of the U.S. population (United States Census Bureau, 2022). This means millions of Americans, their children, and their communities are more likely to face issues like unemployment and poor health.

I aimed to examine effects of grit, resilience, and well-being on the choice to pursue higher education among individuals 18-to-24-years old in the United States. My expectation was to understand factors that mitigate risks and promote higher education to

help K-12 educators and families support children's academic development. I intended to explore research aimed at developing interventions that are designed to promote academic achievement among students regardless of family structure.

Summary

For millions of Americans, higher education is the natural next step after high school. Americans growing up in single parent homes begin to face obstacles from an early age, resulting in lower college enrollment rates (Huang et al., 2017; Tobishima, 2018; Wasserman, 2020). Resilience, as promoted by grit, has been shown to have a positive relationship with well-being and academic achievement (Calo et al., 2019; Jumat et al., 2020; Mason, 2018; Wilcox & Nordstokke, 2019). Understanding if grit, resilience, and well-being in students raised in single parent homes have any correlation with college attendance could provide information for future research that is designed to create interventions promoting these traits. Chapter 2 includes a review of literature on grit, resilience, well-being, family structure, and risks associated with family structure. Strategies for identifying relevant research are also discussed. The chapter also includes a discussion of the theoretical foundations for this research. Conclusions based on this literature review are detailed and discussed.

Chapter 2: Literature Review

Postsecondary education has significant advantages for individuals, their children, communities, and the nation (BLS, 2020; Cataldi et al., 2018; Demir-Dagdaz et al., 2018; Muñoz & Del Picó, 2020; Teague, 2015). In the U.S., 61.3% of people between 18 and 24 do not attend college (NCES, 2023). The U.S. was ranked 21st among 19-year-olds who enrolled in postsecondary education (NCES, 2017). Resilience, grit, and well-being are important factors in terms of attending and completing college (Calo et al., 2019; Hernández et al., 2019; Jumat et al., 2020; Seppälä et al., 2020).

An important influence on higher education attendance and completion is family structure (Huang et al., 2017; Tobishima, 2018; Wasserman, 2020). People raised in single parent homes are less likely to attend college (Soria et al., 2018). Furthermore, when these individuals do pursue higher education, they are less likely to graduate (Soria et al., 2018). It is possible that the personal traits of resilience, grit, and well-being are significantly influenced by family structure. This study involved understanding whether these traits are influenced by family structure, which would indicate that these traits mitigate risks associated with childhoods spent in single parent homes.

The purpose of this correlational quantitative study was to increase understanding of associations between family structure, grit, resilience, and well-being in college. This study involved addressing how profiles of grit, resilience, and well-being differentiate among individuals between 18 and 24 years when raised in single parent versus dual parent households who attended college and those who did not. This study involved increasing understanding of factors that promote achievement in early adulthood, which

can assist researchers in developing interventions for parents that would help promote grit and resilience regardless of family structure.

Literature Search Strategy

Articles that were used for the literature review were scholarly and published in peer-reviewed journals between 2017 and 2022. In the cases of grit, resilience, and well-being, some seminal literature was employed that was not within this timeframe. Via the Walden University Library, databases were accessed to search and collect literature. I used the following databases: PsycInfo, PsycArticles, SAGE Journals, ERIC, Education Source, and ScienceDirect. I used the following keywords: *grit, resilience, well-being, college, higher education, university, postsecondary education, single parent homes, single parents, dual parents, and academic achievement*. I also used Boolean operators. Boolean operators are used to connect keywords to create complex searches (Walden University, n.d.). Examples of Boolean operators are “and,” “or,” and “not” (Walden University, n.d.). I used Boolean operators to complete complex searches.

Theoretical Foundation

I used the Resilience Theory as the theoretical framework. In terms of exposure to risk during adolescence, the Resilience Theory involves strengths that allow healthy development despite risk exposure. Supportive relationships allow children facing risks to develop into resilient adults (Reclaiming Children & Youth, 2012). Rutter (1981) claimed that moderate exposure to negative experiences build resilience and act as a protective factor against subsequent risk.

The Resilience Theory is a framework for examining promotive factors and their influence on the course of human development (Zimmerman, 2013). Within the context of the Resilience Theory, promotive factors are divided into two categories: assets and resources (Fergus & Zimmerman, 2005). Assets are promotive factors within individuals such as self-esteem, coping skills, and self-efficacy. Resources are promotive factors that are external to individuals such as parental support, community programs, and adult mentoring. Factors that are external to the individual can be harnessed to help that individual avoid negative outcomes associated with risk exposure.

Fergus and Zimmerman (2005) claimed positive adjustment or competence may be confused with resilience. These two distinct concepts are related to resilience but are not interchangeable. Within the Resilience Theory framework competence would be considered an asset or promotive factor within individuals. Competence can be a part of the resilience process, and competent individuals are likely to overcome risk. However, several other assets may aid individuals in terms of overcoming risk. Positive adjustment despite exposure to negative experiences is a result of resilience (Fergus & Zimmerman, 2005). Furthermore, positive adjustment can occur without any risk exposure.

According to Fergus and Zimmerman (2005), promotive factors can disrupt negative effects of risk exposure in three different ways. First, promotive factors can act to build resilience prior to the exposure to negative experiences. For example, a child who has high self-esteem due to parental influence. Also, promotive factors may intervene during a negative experience and help build resilience in the presence of risk (Fergus & Zimmerman, 2005). For example, a mentor who can counsel and guide a child

going through a difficult situation. Finally, moderate exposure to negative experiences can build resilience. For example, the child that has had a pet who died may be more resilient when facing the loss of other loved ones. Promotive factors diminish the likelihood of negative outcomes. Substance use in adolescence is associated with risky sexual behavior (Zhao et al., 2017). However, there is lower associations between substance use and risky sexual behavior are when adolescents are exposed to thorough sexual education (Fergus & Zimmerman, 2005; Zhao et al., 2017). Sexual education acts as a protective resource, weakening effects of substance use on sexually risky behavior. Protective factors may also enhance the effect of other protective factors (Fergus & Zimmerman, 2005). For example, parental support may enhance the effect of sexual education courses. Adolescents engaging in substance use may have a reduced risk of sexually risky behavior when exposed to sexual education which may be enhanced by parents providing support and sexual education in the home.

A promotive factor may also compensate for exposure to risk by acting in direct opposition to the risk (Fergus & Zimmerman, 2005). For example, living in poverty is associated with violence among youths (McCrea et al., 2019). However, adult monitoring of behavior may act in direct opposition to this risk and compensate for the exposure to risk (Fergus & Zimmerman, 2005). A promotive factor may also challenge the individual by exposure to a moderate level of risk (Fergus & Zimmerman, 2005). In this model, a person is exposed to enough risk to be a challenge but not so much that overcoming it is impossible. The experience allows the person to use their resources and assets to overcome the risk and increase their resilience. The more opportunities the person is

given, i.e., the more times they are exposed to a moderate amount of risk and able to overcome, the more likely they are to be able to overcome exposure to high levels of risk (Fergus & Zimmerman, 2005). All models of resilience necessarily encompass both risks and promotive factors that lead to a positive outcome. However, within this model moderate exposure acts as a promotive factor.

The current study examined how family structure, grit, resilience, and well-being are correlated with the choice to pursue a post-secondary degree. Similar studies have been conducted on academics, grit, and resilience. Grit and resilience have been shown to have a positive correlation with academic achievement (Calo et al., 2019; Hernández et al., 2019; Shakir et al., 2020). Hernández et al. (2019) evaluated 2028 public university students and found that grit, resilience, and academic achievement had a positive relationship. Furthermore, Hernández et al. found that grit and resilience had a negative relationship with stress. While grit and well-being do not have theoretical frameworks of their own, they each fit into the resilience framework. Grit can operate as a promotive factor for resilience and well-being as a result of resilience. Resilience Theory provides the current study with a framework for examining grit, resilience, and well-being in people from different family structures. Exploring the possible correlations between these traits and family structure will provide some insight into how family structure contributes to future success.

Literature Review Related to Key Variables

The previous section focused on the history and contours of Resilience Theory, which is essential to understanding the focus of this research. The following sections will

explain the key variables used in this research. In addition, there will be an exploration of research on how variables like grit relate to resilience and how these traits can mitigate risk and lead to positive outcomes like higher well-being and academic achievement. This exploration will serve to highlight some ways researchers have approached these variables and the strengths and weaknesses inherent in their approaches. Finally, a synthesis of these studies will explain what is known about the variables and what remains to be studied.

Family Structure

One resource that can have a significant impact on an individual's future is family structure. The traditional family structure consists of a mother, a father, and one or more children (Britannica, 2015). Commonly known as the nuclear family, this family structure continues to define the majority of homes (Federal Interagency Forum on Child and Family Statistics, 2020). However, single parent homes have increased dramatically over the last 50 years (United States Census Bureau, 2021). Children growing up in a single parent home face challenges and risks their counterparts in dual parent homes do not (Wasserman, 2020). These include fewer financial resources, less time with their parent, and stress associated with these deficits (Wasserman, 2020). As a result, children in single parent homes tend to have more behavioral problems and lower academic achievement (Huang et al., 2017; Wasserman, 2020; Tobishima, 2018). Tompsett and Knoester (2023) point out that individuals from single parent homes are less likely to attend college. In addition, children from single parent homes tend to have lower levels of well-being. However, some children from single parent homes do not exhibit behavioral

problems, do well in school, have higher levels of well-being, and go on to attend college. While some children from dual parent homes exhibit behavioral problems, do poorly in school, and have lower levels of well-being. Resilience and grit have been previously associated with higher academic achievement and higher levels of well-being (Akbag & Ümmet, 2017; Hernández et al., 2019; Mason, 2018). This study examined the correlation between these traits and family structure and future success as measured by academic achievement.

Huang et al. (2017) and Tobishima (2018) both conducted studies to explore the relationship between family structure and academic performance. Huang et al. studied 56,508 7th and 8th-grade students in Virginia, while Tobishima studied 6,009 10th grade students in Japan. Both studies found that family structure does indeed have an impact on academic performance, with students from dual parent households having the higher GPA than their counterparts from single parent homes. One significant flaw in both studies is the reliance on self-reported data, including GPA scores. This raises the possibility that the students' perception of their academic performance may not accurately reflect their actual performance. Both studies also do not consider personal traits such as resilience, grit, or well-being, which may also play a role in academic success. Despite these limitations, both studies provide valuable insights into the association between family structure and academic performance.

Using data gathered from a national survey in Korea known as the Korean Youth Risk Behavior Web-based Survey (KYRBS), Park and Lee (2020) examined the potential correlation between family structure and health behaviors, mental health, and academic

achievement. The study included 59,096 adolescents from 400 middle schools and 400 high schools and found that 13.5% of adolescents from dual parent homes reported the highest academic achievement compared to 9.3% of adolescents in single parent homes (Park & Lee, 2020). Additionally, 20.1% of adolescents from single parent homes were in the low academic achievement group compared to 9.2% of adolescents from dual parent homes (Park & Lee, 2020). Notably, adolescents from single parent homes were also more likely to engage in risky behaviors such as smoking, drinking alcohol, and using drugs, and to struggle with mental health issues like depression and suicidal ideation (Park & Lee, 2020). However, one limitation of the study was its reliance on self-report measures, which may have led to some participants over or underrating their academic achievement. Similarly, Ferrer and Pan (2020) used existing data from the National Longitudinal Survey of Children and Youth (NLSCY) in Canada to examine the relationship between family structure and academic performance. The study included 2,227 students for reading performance analysis and 1,962 students for math performance analysis and found that students from dual parent homes tended to score higher on reading and math tests compared to their counterparts from single parent homes (Ferrer & Pan, 2020). However, Ferrer and Pan did not provide data to support their suggestion that this disparity may be more pronounced in older children.

Studies have consistently shown an association between family structure and academic achievement. Children in single parent homes face challenges such as fewer financial resources and less time with their parent, resulting in higher rates of behavioral problems and lower academic achievement (Wasserman, 2020). However, some children

from single parent homes exhibit resilience and grit and go on to do well in school and attend college. Several studies have explored the relationship between family structure and academic performance, with a consistent finding that students from dual parent households tend to have higher GPAs and test scores compared to those from single parent homes (Ferrer & Pan, 2020; Huang et al., 2017; Park & Lee, 2020; Wasserman, 2020; Tobishima, 2018; Tompsett & Knoester, 2023). However, these studies have limitations, including reliance on self-reported data and a lack of consideration of personal traits like resilience and well-being. Furthermore, there is evidence that adolescents from single parent homes are more likely to engage in risky behaviors and struggle with mental health issues. However, further research is necessary to fully understand the impact of family structure on academic achievement and overall well-being. The current study examined how grit, resilience, and well-being, which have previously been associated with academic achievement, are affected by family structure and academic achievement.

Well-being

One personal trait that is often linked to resilience and grit is well-being (Calo et al., 2019). Throughout the history of psychology, the focus has been on studying unhappiness and dysfunction (Ryff, 1989). However, there has been an increasing interest in studying human happiness, leading to the emergence of well-being as a significant area of research. Initially, attempts to define well-being were unsuccessful due to a lack of theoretical framework (Ryff, 1989). In response, Ryff (1989) synthesized various theories such as Erikson's psychosocial stages, Maslow's theory of self-actualization, Buhler's

basic life tendencies, Rogers's conception of a fully functioning person, Neugarten's descriptions of personality, Jung's formulation of individuation, Jahoda's positive criteria of mental health, and Allport's conception of maturity.

Ryff's (1989) theory of well-being consists of six subcategories: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. Self-acceptance refers to having a positive attitude toward oneself and accepting one's past. Positive relations with others emphasize the importance of warm and trusting relationships, while autonomy highlights the ability to regulate one's behavior without being influenced by the approval of others. Environmental mastery refers to the ability to navigate and create a supportive environment for one's mental health. Purpose in life involves having a sense of direction and personal goals that bring meaning to one's life. Finally, personal growth is characterized by continuous development and taking on new challenges. Ryff's (1989) conception of well-being is centered on long-term happiness and involves sacrificing short-term happiness.

In Ryff's (1989) study, the aim was to optimize the six dimensions of psychological well-being and maximize the fit between the new measure and the conceptual literature. With the initial goal of creating a new measure, Ryff wrote approximately 80 items for each of the six dimensions of well-being, which were then reviewed and reduced to 20 items per dimension after being administered to 321 adult participants. The validity and reliability of the new 20-item scale were supported by its use with 117 adult participants (Ryff, 1989). In a subsequent study by Ryff and Keyes (1995), the multidimensional model of well-being was tested with 1,108 adults, resulting

in a shortened scale that showed similar positive correlations and met psychometric criteria. However, limitations were acknowledged regarding potential reporter bias and the study's focus solely on establishing a measure of well-being without exploring related constructs or the influence of family structure.

In a study of Taiwanese adolescents, Lin and Yi (2019) found that well-being tends to decrease during adolescence due to various factors such as puberty, volatile emotions, increased academic demands, and efforts to establish autonomy from parents. This decrease in well-being occurred regardless of family structure and is especially challenging for adolescents due to their limited cognitive development and life experience. However, the study also found that adolescents from dual parent families experience a less significant decrease in well-being compared to those from single parent homes. Lin and Yi's research suggests that while a decrease in well-being is common during adolescence, family structure can influence the extent of this decrease. Similarly, Guo (2019) examined the effect of family structure on well-being in emerging adults in China, finding similar results to Lin and Yi's study. One explanation is that parental divorce has a negative influence on maternal attachment which, in turn, affects peer attachment which creates insecure attachments in both areas and negatively influences well-being (Guo, 2019). Another possible explanation is the cultural perspective on divorce. Guo points out that Chinese culture stigmatizes divorce and individuals with divorced parents may experience some prejudice that negatively impacts their well-being. However, a limitation of both studies is that they do not account for the possibility that

the event of divorce or the death of a parent could be the influencing factor, rather than simply living in a single parent home.

In a study of Australian high school students, Cárdenas et al. (2022) found that well-being was positively associated with increased academic performance. Cárdenas et al. used national testing to establish academic performance and used an anxiety measure and a depression measure to establish well-being. They found that the effects of well-being had a consistent effect on numeracy, every standard deviation in well-being was associated with a consistent change in numeracy. However, the effects were not consistent in reading (Cárdenas et al., 2022). Cárdenas et al. do suggest what is responsible for differences in well-being but do make an argument for promoting well-being in order to promote academic achievement. One limitation of this study is their measure of well-being. Cárdenas et al. do not use a measure of well-being in their study. Rather, they use measures of anxiety and depression and assert the result identifies well-being. This makes it difficult to compare their results to other studies that use a measure specifically designed for well-being like Ryff's (1989) Psychological Well-being Scale (PWB) which has six subcategories, none of which as anxiety or depression.

Ryff's (1989) seminal work helped define well-being and firmly root it in Erikson's psychosocial stages, Maslow's theory of self-actualization, Buhler's basic life tendencies, Rogers's conception of a fully functioning person, Neugarten's descriptions of personality, Jung's formulation of individuation, Jahoda's positive criteria of mental health, and Allport's conception of maturity. Using these theories Ryff described well-being as long-term happiness based on six subcategories: self-acceptance, positive

relations with others, autonomy, environmental mastery, purpose in life, and personal growth. Since then, hundreds of researchers have studied have well-being. Recently, researchers have demonstrated an association between family structure and well-being (Guo, 2019; Lin & Yi, 2019). Specifically, individuals from dual parent homes have higher levels of well-being (Guo, 2019; Lin & Yi, 2019). However, these studies did not indicate if well-being or family structure were associated with outcomes like academic performance. Cárdenas et al. (2022) demonstrated a positive association between well-being and academic performance. However, Cárdenas et al. did not consider the influence of family structure. None of the studies sought to understand if there was an association between family structure, grit, resilience, and academic performance.

Resilience

Resilience is the extent to which a person can bounce back from a negative experience (Zimmerman, 2013). Negative experiences in life may be unavoidable, resilience describes a person's ability to have a negative experience without being derailed. Resilience Theory provides the structure for examining why some people develop along a healthy trajectory despite exposure to risks (Zimmerman, 2013). With an emphasis on positive variables which compensate for, protect against, or inoculate against the effects of exposure to risk which might otherwise lead to negative outcomes for the individual (e.g., poor health, mental distress, and behavioral problems) (Zimmerman, 2013). These positive variables fostering resilience are known as promotive factors.

Promotive factors fall into the categories of assets and resources (Zimmerman, 2013). Factors external to the individual are resources (Zimmerman, 2013). Resources can take the form of parental emotional support, parental financial support, community resources, a mentor, etc. Resources are any factors in the person's environment serving to promote resilience and mitigate risk. Assets are personal traits internal to the individual (Zimmerman, 2013). Assets can take the form of self-esteem, grit, self-efficacy, etc. Assets are any internal trait serving to promote resilience and mitigate risk. Resources can also serve to promote assets (e.g., a supportive parent may promote self-esteem in the individual).

Promotive factors can disrupt the effects of negative experiences in three ways. Promotive factors can act in direct opposition to compensate for a negative experience (Zimmerman, 2013). For example, parental support may neutralize the risks associated with being around violent adults. Promotive factors can protect against the effects of a negative experience (Zimmerman, 2013). For example, mentors may protect young mothers from the risks associated with stress associated with parenting (Zimmerman, 2013). Promotive factors involving moderate exposure to risk may inoculate against future risks (Zimmerman, 2013). Exposure to risk and successful navigation of the risk can build resilience against further risk. For example, children who experience interpersonal conflict but can successfully resolve the conflict amicably may be better equipped to resolve future interpersonal conflict.

Resilience levels in individuals can be measured using the Brief Resilience Scale (BRS) (Smith et al., 2008). The BRS was developed by Smith et al. (2008) in an effort to

reliably assess resilience in individuals. According to Smith et al., previous attempts at establishing a tool to assess resilience focused on specific protective factors of resilience rather than on resilience itself. Their approach to developing the BRS was focused on establishing the minimum number of items necessary to reliably assess resilience. The result is a six-item self-report tool with responses on a five-point Likert-type scale (Smith et al., 2008). Of the six items, an equal portion is phrased in positive terms versus negative terms to help control for response bias. Smith et al. then tested the BRS against four different samples. Sample one was comprised of undergraduate students ($n = 128$), sample two was comprised of undergraduate students ($n = 64$), sample three was comprised of cardiac rehabilitation patients ($n = 112$), and sample four was comprised of 50 women who were both healthy controls ($n = 30$) and had fibromyalgia ($n = 20$). The BRS has subsequently been used in several studies to measure resilience in individuals and has helped demonstrate an association between resilience to promotive factors (Calo et al., 2019).

In their integrative review, Cleary et al. (2018) examined fourteen studies on resilience and emotional intelligence in university nursing students, focusing on how these traits are promoted in undergraduate nursing education. The results were synthesized into three themes: emotional intelligence and resilience in nursing students, emotional intelligence and resilience in professional experience placements, and differences in emotional intelligence and resilience across demographic characteristics. Overall, resilience was found to have a consistently positive relationship with nursing students' ability to overcome challenges in field placements, including improved

communication, well-being, reduced fear of death, and persistence. However, there were limitations such as a lack of longitudinal and controlled studies, and the restriction of only including English-language research. Similarly, Bag et al. (2022) conducted a cross-sectional study of 179 Australian adults, 100 of whom were first-year psychology students, and the remainder became involved as the result of an online advertisement. They wanted to determine if resilience and self-compassion were positively associated with well-being, specifically optimism, life satisfaction, affectivity, and psychological distress (Bag et al., 2022). Their survey determined that resilience had a positive association with optimism, life satisfaction, and positive affect and negative associations with depressive symptoms. One limitation of Bag et al.'s study is the definitions of these concepts. Bag et al. point out that resilience can be understood as a trait or as a process. Likewise, well-being can be understood as a multidimensional construct or a single dimension. Having established dimensions of the construct is vital to the validity and reliability of a study. While the results of these studies indicated a positive relationship between these traits, they did not consider the potential influence of family structure.

Sakiz and Aftab (2019) conducted a study of 810 students between the ages of 14 and 19 in five different regions of Turkey. The study aimed to determine if there was a relationship between resilience levels and academic achievement (Sakiz & Aftab, 2019). Additionally, they wanted to determine if sociodemographic variables influenced resilience levels and academic achievement (Sakiz & Aftab, 2019). Within the domain of academic achievement, Sakiz and Aftab examined four sub-domains: math, language, social sciences, and grade point average (GPA). Sakiz and Aftab found resilience to have

a positive relationship with academic achievement. Those with higher levels of resilience tended to score higher in all academic domains. They also found sociodemographic factors did influence resilience levels (Sakiz & Aftab, 2019). Average-income and high-income participants did not significantly differ in terms of resilience, but low-income participants had significantly lower resilience levels. This was also true for academic achievement, sociodemographic factors influence academic achievement (Sakiz & Aftab, 2019). Family income had a positive relationship with all four sub-domains of academic achievement. Those from higher-income families tended to score better across academic domains, indicating family structure may play a role in academic achievement since family income is significantly affected by family structure. However, this study does not explicitly look at family structure and its effect on resilience, grit, well-being, and academics.

People encounter a variety of difficulties in their lives. Resilience is the ability to bounce back after a difficult experience, rather than give up or be negatively affected by the experience (Zimmerman, 2013). Smith et al. (2008) created the BRS which can measure an individual's level of resilience. The BSR has allowed researchers to explore the association between resilience and other traits or life circumstances. Fittingly, persistence has been positively associated with resilience (Cleary et al., 2018). Resilient people also tend to do well in their endeavors, as demonstrated by Sakiz and Aftab (2019) who showed a positive association between resilience and academic achievement. Resilient people also tend to have high levels of well-being (i.e., they are happier) (Bag et al., 2022; Cleary et al., 2018).

Grit

Another personal trait consistently associated with academic success is grit (Calo et al., 2019; Meyer et al., 2020; Shakir et al., 2020). Grit was first measured as a personal trait by Duckworth et al. (2007) who sought to understand what personal trait(s) characterized high achievers. Certainly, some traits would be essential to achievement in specific domains (e.g., creativity for fiction authors). Duckworth et al. wanted to identify the essential trait(s) common to all high achievers. Their conclusion was all high achievers possessed the trait of grit. Grit is the non-cognitive trait of passion and persistence which allows the achievement of long-term goals (Duckworth et al., 2007).

Grit is the compound of two related but separate factors: passion and perseverance (Duckworth et al., 2021). The two factors of grit are complementary but independent activities which can be understood as goal striving and goal commitment (Duckworth et al., 2021). In addition, each factor encourages the other. Passion concerns a person's enthusiasm for a specific subject. Particularly gritty individuals have a great deal of interest in a particular subject and engage in it with zeal. Passion is necessary to grit, but not sufficient. A person may develop a passion for a subject only to have that passion wane in favor of some new interest. Likewise, a person could have a passion for a subject and never actually engage in the activity. Perseverance concerns a person's commitment to a specific subject. Particularly gritty individuals have a great deal of commitment to a single subject. Perseverance is necessary to grit, but not sufficient. A person may doggedly pursue a goal without any fervor for the topic. Likewise, a person could consistently complete projects without there being any commonality to the subjects of the

projects. A gritty individual is passionate about their subject matter and perseveres toward mastering the subject despite setbacks.

Duckworth et al. (2007) found grit to be a better predictor of success than IQ or talent. When faced with adversity intelligent or talented individuals may quit, but gritty individuals stay the course (Duckworth et al., 2007). Duckworth et al. validated the initial grit scale across six studies. The first study involved 1,545 participants aged 25 and older. They started with 27 items generated from exploratory interviews with high-achieving individuals in a variety of fields (Duckworth et al., 2007). The 27 items were meant to capture the attitudes, behaviors, and characteristics of these high achievers. Duckworth et al. then eliminated 10 items by looking at the simplicity of vocabulary, redundancy, internal reliability coefficients, and item-total correlations. On the remaining 17 items, Duckworth et al. conducted an exploratory factor analysis and narrowed the list of items to 12. In the second study, Duckworth et al. examined 706 participants aged 25 and older intending to determine if grit provides incremental predictive validity over other constructs that are designed to predict achievement. Duckworth et al. found grit was the only significant predictor when compared to other constructs. In the first and second studies, Duckworth et al. found that grit was a significant predictor of educational attainment. In study three Duckworth et al. examined 139 undergraduate students intending to determine if grit was associated with cumulative GPA and a better predictor of GPA than intelligence. SAT scores were used as an indicator of mental ability. As predicted, grit was a better predictor of GPA than intelligence. In study four, Duckworth et al. examined 1,218 new candidates at the highly competitive United States Military

Academy, West Point. Despite the rigorous application and screening process, the first summer of the program is so arduous that 1 in 20 students drops out (Duckworth et al., 2007). Duckworth et al. expected grit to better predict retention over the first summer than West Point's Whole Candidate Score. As expected, grit predicted retention through the first summer better than West Point's Whole Candidate Score. Study five examined 1,308 West Point candidates intending to determine if Big Five traits were a better predictor of retention over the first summer than grit. Again, Duckworth et al. found grit to be a better predictor of retention over the first summer. Study six was a longitudinal study that examined 175 of 273 finalists in the Scripps National Spelling Bee aged between 7 to 15 years old (Duckworth et al., 2007). Duckworth et al. found grit predicted advancement to higher rounds in the competition. The results of study six suggest gritty children work harder and longer consequently performing better (Duckworth et al., 2007). One limitation of Duckworth et al.'s approach to all the studies is the self-report format of the grit scale. As a result, participants may have responded the way they believe others would like them to respond or how they would like to think of themselves. In either case, their responses may not be accurate. In addition, none of these studies touch on how grit relates to other traits known to predict achievement, such as self-efficacy. Duckworth et al.'s groundbreaking work on grit does not explore how it is developed or what phenomenon influences it (e.g., family structure).

Akbag and Ümmet (2017) conducted a study of 348 final-year undergraduate students in Turkey intending to examine the predictive power of grit on well-being. Akbag and Ümmet found a positive relationship between grit and well-being. Participants

with higher levels of grit were more likely to doggedly pursue and reach their long-term goals. In addition, these individuals are more capable of showing flexibility and effective coping when facing adversity (Akbag & Ümmet, 2017). The combination of these qualities led to higher levels of well-being (Akbag & Ümmet, 2017). Akbag and Ümmet acknowledge several weaknesses in their study. For example, their study did not consider other factors that may influence well-being (e.g., socioeconomic status or family structure).

Duckworth et al. (2007) studied high achievers across multiple domains to understand what allowed some individuals to achieve success where others failed. Across several studies, Duckworth et al. developed the Grit scale for measuring grit levels within an individual. Grit has two factors contained within it, passion and persistence each of which is measured using the Grit scale and the combined score measures an individual's grittiness (Duckworth et al., 2007). Duckworth et al. found that grit more accurately predicted success than any other individual characteristic (e.g., intelligence). The Grit scale is a self-report measure and, as such, has certain limitations associated with it. For example, participants may respond in a way in which they would like to be seen rather than in a way that accurately describes them. Despite any shortcomings of the Grit scale, it has been used in several studies to measure grit levels. Akbag and Ümmet (2017) conducted a study of undergraduate students and found a positive association between grit and well-being.

Grit and Resilience

Across several studies, resilience was consistently shown to have a positive relationship with grit and academic achievement (Calo et al., 2019; Cleary et al., 2018; Meyer et al., 2020; Sakiz & Aftab, 2019; Shakir et al., 2020). Resilience Theory suggests that protective factors, in the form of assets and resources, can influence a person's ability to rebound from negative experiences (Zimmerman, 2013). Grit has been shown to be a protective factor against negative experiences (Calo et al., 2019). Grit is a personal trait within the individual, making it an asset within the Resilience Theory framework. Grit allows individuals to achieve complicated long-term goals despite experiencing adversity. Calo et al. (2019) cross-sectional study of 134 Australian physiotherapy students. They aimed to determine levels of grit and resilience and ascertain if these personal traits are related to each other or demographic factors. Calo et al. concluded that resilience and grit were positively associated with academic success in physiotherapy students. Calo et al. determined that high levels of resilience and grit had a positive relationship with academic achievement. However, they did not determine if the reverse was true (i.e., low levels of grit and resilience are associated with poor academic performance). They acknowledge their study may not be representative of the general population since participants were all taken from one university. This study demonstrates some association between resilience, grit, and academics, but it does not consider how family structure affects these variables.

Meyer et al. (2020) conducted a study of 348 U.S. nursing students across three nursing programs. They aimed to examine the relationship between resilience and grit in

these students. Meyer et al. found a positive relationship between grit and resilience, particularly the persistent effort dimension of grit. However, their study did not conclude that higher resilience or grit led to any positive outcome for these students or how family structure influenced their performance. In addition, the students who respond may have responded the way they believe others would like them to respond or how they would like to think of themselves. In either case, their responses may not be an accurate representation of their actual situation.

Shakir et al. (2020) conducted a study of 427 U.S. Neurosurgery Residents using the American Association of Neurological Surgeons database to identify and approach potential participants. They aimed to assess burnout and determine if a relationship existed between resilience and grit with burnout (Shakir et al., 2020). Shakir et al. determined that 33% of responding neurosurgery residents endorsed experiencing burnout. In a highly demanding neurosurgery program, they found higher levels of grit and resilience were negatively associated with burnout and social/personal stressors (Shakir et al., 2020). The authors acknowledge several weaknesses in their study's design. Their study was not longitudinal, so the results only provided a snapshot of the participants. In addition, the self-report nature of the study allows for possible reporter biases to affect the results. For example, residents experiencing burnout may have been more or less likely to respond to the survey skewing the data about the prevalence of burnout within the population. In addition, those residents who did respond may have responded the way they believe others would like them to respond or how they would like to think of themselves. In either case, their responses may not be an accurate

representation of their actual situation. This study, conducted by Shakir et al., is a follow-up to the 2018 study which produced similar results on the relationship between burnout and resilience and grit (Shakir et al., 2020; Shakir et al., 2018). Interestingly, they found a positive association with marital status, with married residents showing higher levels of grit and resilience (Shakir et al., 2020). This suggests family structure played some role in resilience and grit levels but does not address the structure of the individual's family of origin.

Hossain et al. (2022) sought to understand if there was an association between grit, resilience, and academic performance. Though Hossain et al. were specifically interested in how grit and resilience affected academic performance in students with a reading disorder. They surveyed 163 students between the ages of 6 years old and 16 years old from three schools in the San Francisco Bay Area, CA specializing in educating children with reading disorders. Hossain et al.'s longitudinal study showed a positive association between resilience and grit with academic performance in students with a reading disorder. The study also showed a negative association between grit and resilience with anxiety and depression in students with a reading disorder (Hossain et al., 2022). Furthermore, they demonstrated that grit and resilience could be increased in students with a reading disorder through specialized interventions which would also affect associated factors (e.g., academic performance and anxiety) (Hossain et al., 2022). This study examined resilience, grit, and their association with academics. It also factored in a childhood risk factor, a learning disability, but did not examine how the family structure was associated with these results.

Studies consistently find a positive association between grit and resilience (Calo et al., 2019; Cleary et al., 2018; Hossain et al., 2022; Meyer et al., 2020; Sakiz & Aftab, 2019; Shakir et al., 2020). Within the Resilience Theory framework, grit is understood as an asset that operates as a protective factor against risks (Calo et al., 2019; Zimmerman, 2013). In addition, both grit and resilience are consistently demonstrated to have a positive association with academic achievement (Calo et al., 2019; Cleary et al., 2018; Hossain et al., 2022; Meyer et al., 2020; Sakiz & Aftab, 2019; Shakir et al., 2020). Calo et al. (2019) demonstrated grit and resilience contributed to academic success in physiotherapy students. In a similar field of study, Meyer et al. (2020) similar association between grit, resilience, and academic success in nursing students with a notably strong association between resilience and the persistence dimension of grit. In the highly demanding domain of neurosurgery residents, Shakir et al. (2020) found that grit and resilience support the support of residents by preventing burnout. Hossain et al. (2022) highlighted the same association between resilience, grit, and academic performance but in a significantly different population, children ages 6 years old and 16 years old. While all these studies demonstrate positive associations between grit, resilience, and academic success they do not consider the influence of family structure. Apart from Calo et al. (2019), these studies also do not consider the well-being of the participants.

Summary and Conclusions

Succinctly defined, resilience is a person's ability to bounce back from adversity. Resilience has two factors: assets and resources (Zimmerman, 2013). Assets are personal traits of individuals, like self-esteem. Resources are external, like parental support. When

faced with negative experiences, these promotive factors can act to compensate, shield, or inoculate against risks. Resilience can be measured using the six-item BRS, a self-report tool with responses using a five-point Likert scale.

The Resilience Theory may be key to understanding how some individuals who grow up in single parent homes are able to successfully pursue postsecondary education despite increased exposure to risks. Family structure has a demonstrated impact on children's behavior, academic performance, and well-being. This is due in part to challenges and risks associated with growing up in single parent homes (Wasserman, 2020). Poor academic performance is not strictly limited to people raised in single parent homes. Growing up in single parent homes exposes individuals to risks affecting academic performance and attainment (Huang et al., 2017; Tobishima, 2018; Wasserman, 2020).

However, some children from single parent homes do not exhibit these issues, while some children from dual parent homes do exhibit issues. Resilience has a positive relationship with outcomes like academic achievement and protects against negative outcomes associated with risk exposure (Calo et al., 2019; Cleary et al., 2018; Meyer et al., 2020; Sakiz & Aftab, 2019; Shakir et al., 2020). Research involves grit as a predictor of success and high achievement. Grit is the combination of two factors: passion and perseverance (Duckworth et al., 2021). Within the Resilience Theory framework, grit acts as an asset and compensates for risk exposure to protect against the possibility of quitting after a negative experience. Grit can be measured using the Short Grit Scale (Grit-S).

Well-being involves long-term happiness which may be at the expense of short-term happiness (Ryff, 1989). Well-being is a six-factor trait which involves self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth (Ryff, 1989). Well-being can be measured using the Well-Being Scale.

Personal traits, resilience, grit, and well-being all serve to mitigate risk and promote positive outcomes. One persistent source of risk affecting lives of millions of children around the world is growing up in single parent homes. Grit and resilience had a positive relationship with well-being. Resilience and grit are correlated with academic achievement in several fields of study. In addition, resilience and grit are correlated with well-being and lower stress. However, researchers have yet to examine if family structure and associated risks relate in any way to grit and resilience. I explored relationships between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education.

Chapter 3 includes an outline of specific methods that were chosen to address this gap in research. The research design and rationale are discussed. In addition, the proposed methodology as well as population, sampling, sampling procedures, and instrumentation and operationalization of constructs is discussed. This is followed by a discussion of the proposed data analysis plan and threats to external and internal validity. Finally, ethical procedures for the proposed study are described.

Chapter 3: Research Method

The purpose of this correlational quantitative study was to increase understanding of associations between family structure, grit, resilience, and well-being in college. I looked at how profiles of grit, resilience, and well-being differentiate among individuals between 18 and 24 raised in single parent versus dual parent households who attended and did not attend college. Increased understanding of factors that promote achievement in early adulthood despite exposure to risk during formative years highlights potential areas is necessary to develop interventions for parents that would help promote grit and resilience regardless of family structure.

This chapter includes a discussion of the research design and rationale. The methodology is reviewed, as well as sampling procedures. Procedures for recruitment, participation, and data collection are also explained. Instruments and operationalization of constructs are examined. Potential threats to validity of the study are discussed, as well as methods for avoiding threats. Finally, ethical procedures are explained.

Research Design and Rationale

Quantitative research is an objective and systematic process of describing variables and testing hypotheses involving relationships between variables (Bloomfield & Fisher, 2019). Quantitative research also involves using numerical data to determine the prevalence of any existing relationships between variables (Bloomfield & Fisher, 2019). Quantitative research involves several assumptions including the belief in a single truth or reality, objectivity, and deduction (Bloomfield & Fisher, 2019). Researchers using quantitative methods search for true answers by testing hypotheses using objective

scientific methods (Bloomfield & Fisher, 2019). Qualitative research involves understanding how individuals experience and understand their own lives (Howson, 2021). I determined trait levels among study participants and how those levels relate to their family structure and choice to pursue post-secondary education. Trait levels can be determined using the BRS, the Psychological Well-being Scale (PWB), and the Short Grit Scale (Grit-S) which produced numerical data that was then used for analysis.

There are several different quantitative research designs. I used a correlational research design. The object of correlational research is to investigate whether variables are related and explain the nature of the relationship, if any (Bloomfield & Fisher, 2019). Any correlational relationship between variables does not imply causation between variables (Bloomfield & Fisher, 2019). The correlational research design is used to examine strength, type, and degree of the relationship between variables in a sample using correlational statistics (Bloomfield & Fisher, 2019). A distinctive aspect of correlational studies is that variables are not manipulated. Rather, they describe or predict relationships (Bloomfield & Fisher, 2019). Variable relationships in correlational studies can be described as having no, positive, or negative correlations (Bloomfield & Fisher, 2019). A positive correlation is a relationship in which both variables increase or decrease simultaneously (Bloomfield & Fisher, 2019). A negative correlation is a relationship in which one variable increases while another decreases simultaneously (Bloomfield & Fisher, 2019).

Quantitative research involves using data collection tools to produce numerical data which can be analyzed to identify relationships (Bloomfield & Fisher, 2019). the

BRS, the PWB, and the Grit-S were used in this study to determine levels of grit, resilience, and well-being among college students. They have also been associated with academic success (Jumat et al., 2020; Mason, 2018; Wilcox & Nordstokke, 2019). This study was focused on individuals between 18 and 24 and divided into four group profiles. I examined if there were relationships between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education. This study also includes an analysis of associations between family structure, grit, resilience, and well-being. As the aim of this study was to determine if there was any correlation between these trait levels and membership in four groups; single parent home and did not attend college, single parent home and did attend college, dual parent home and did not attend college, and dual parent home and did attend college. A quantitative correlational design was ideal for addressing these aims.

Methodology

Population

The target population was individuals who were between 18 and 24. According to the NCES (2020), 58.9% of all individuals enrolled in postsecondary institutions are between 18 and 24. There are many different household arrangements, but I focused on dual parent and single parent homes. The traditional family structure, sometimes called a nuclear family, consists of two adults and their children (Britannica, 2015). Adults in a dual parent family structure are traditionally married and heterosexual, but definitions have expanded to include unmarried couples and same-sex couples (Britannica, 2015). I used the expanded definition of dual parent family structure. Likewise, children in the

family are traditionally the couple's biological offspring, but definitions have expanded to include children from previous relationships and adopted children (Britannica, 2015). Again, I used this expanded definition. Single parent homes are households with children in which only one parent is present (Link, 2021). Since 1968, single parent homes have increased by 116.1% with single parents comprising 45.7% of all families in the U.S. (U.S. Census Bureau, 2021; U.S. Census Bureau, 2022). Growing up in a single parent home can have negative effects on academic performance and reduce the likelihood of pursuing postsecondary education (Huang et al., 2017; Tobishima, 2018; Tompsett & Knoester, 2023; Wasserman, 2020).

Sampling and Sampling Procedures

The nonprobability voluntary response sampling method was used for this research. Nonprobability sampling involves selecting a group of respondents from a larger population. I employed the online survey platform SurveyMonkey to access participants. Participants were limited to persons between 18 and 24. Participants were sorted into four groups based on their family structure (single parent versus dual parent) and college attendance (attended college versus did not attend college).

Procedures for Recruitment, Participation, and Data Collection

Following approval from the Walden University Institutional Review Board (IRB), approval number 7-11-23-0721948, SurveyMonkey was used to create and distribute the survey. SurveyMonkey did charge for its use and charges varied based on the number of exclusion criteria and questions. However, participant compensation was determined by SurveyMonkey. The platform allowed for selection of inclusion criteria.

The survey was limited to a specific number of participants. It was accessed by 1,056 individuals between the ages of 18 and 24, with 381 responses containing enough data for analysis. In addition to survey data, demographic information was gathered before participants accessed survey questions. Informed consent was also provided to all participants before accessing the survey (see Appendix A). The survey included the BRS (see Appendix C), Grit-S (see Appendix D), and PWB (see Appendix E). Once collected, data were stored in the OneDrive Microsoft cloud service with password protection and will be kept there for no less than 5 years. Data were also securely stored on a password-protected flash drive designated only for current research. This flash drive is stored in a locked file cabinet where it will be kept for no less than 5 years. Passwords for the OneDrive account and flash drive are only known by me.

Instrumentation and Operationalization of Constructs

In addition to various demographic questions, three psychometric instruments were used in surveying participants.

Demographic Questionnaire

The participant inclusion criteria and demographic questions were asked before providing informed consent. Demographic questions were used to gather information on participants' age, ethnicity, grade point average, and gender. The inclusion criteria were used to determine the appropriateness of participation in the study. A copy of this questionnaire is in Appendix B.

Brief Resilience Scale (BRS)

The BRS developed by Smith et al. is designed to measure the individual trait of resilience. Resilience is defined as the ability to recover from a stressful experience (Smith et al., 2008). The BRS is a six-item self-report tool. The six items on the scale provide a five-point Likert-type scale. Response options are strongly disagree, disagree, neutral, agree, and strongly agree. and takes approximately 3-5 minutes to complete. Higher scores on the BRS indicate higher levels of resilience.

Reliability

Smith et al. (2008) examined four different samples to determine the validity and reliability of the measure. The samples were made up of undergraduate students, cardiac patients, and chronic pain patients. The results support the BRS as a reliable test with Cronbach's alpha ranging from .80 to .91.

Validity

Smith et al. (2008) found that the BRS had a consistently positive association with coping and positive reframing. A zero-order correlation was used in determining discriminant predictive validity and found that BRS was negatively correlated with negative affect ($r = -.34, p < .01$), perceived stress ($r = -.60, p < .01$), anxiety ($r = -.46, p < .01$), and depression ($r = -.4, p < .01$). While BRS was positively associated with positive affect ($r = .46, p < .01$). When comparing measures within other resiliency scales, Smith et al. found that BRS was always correlated in the same directions.

Short Grit Scale (Grit-S)

The original full length grit scale was developed by Duckworth et al., (2007) to measure the noncognitive trait of grit. According to Duckworth et al., grit is defined as perseverance and passion for long-term goals. Duckworth et al. found high levels of grit predicted achievement in challenging areas. The original scale is a 12-item self-report measure (Duckworth et al., 2007). The Grit-S developed by Duckworth and Quinn (2009) is an 8-item measure and has improved psychometric qualities. Duckworth and Quinn validated the Grit-S over six studies with a range of participants including West Point United States Military Academy cadets, National Spelling Bee contestants, and undergraduates at Ivy League universities (Duckworth & Quinn, 2009). The Grit-S has eight items using a five-point Likert-type scale. Response options are very much like me, mostly like me, somewhat like me, not much like me, and not like me at all. The scale takes approximately 2-4 minutes to complete. Higher scores on the Grit-S scale indicate higher levels of grit.

Reliability

The Grit-S showed consistently high levels of reliability. Duckworth and Quinn (2009) also conducted a longitudinal study of 7th-11th grade public school students (N=279) using the Grit-S. Duckworth and Quinn found that Grit-S was stable over time with $r=.68$, $p<.001$. Grit-S demonstrated high internal consistency in both 2006 ($\alpha=.82$) and 2007 ($\alpha=.87$) assessments. Duckworth and Quinn also report (2005) that the Grit-S showed a good fit, $\chi^2(19, N=1,218) = 106.36$, $p<.001$; RMSEA=.061 (90% confidence interval [CI]= .050-.073), CFI=.95.

Validity

Duckworth and Quinn (2009) used a confirmatory factor analysis to determine the goodness of fit for their 8-item grit scale $\chi^2(19, N=1,554) = 188.52, p < .001$. They found the shortened grit scale was a significant predictor of achievement $B=0.55, OR=1.73, p=.03$, and persistence $B=0.69, OR = 1.99, p < .001$ (Duckworth & Quinn, 2009).

Psychological Well-being Scale (PWB)

The 18-item PWB is a self-report measure developed by Ryff and Keyes and is an adaptation of the longer 42-item scale. This scale was designed to measure perceived happiness in an individual. Like its 42-item counterpart, the 18-item PWB measures well-being across six domains: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth (Ryff, 1989; Ryff, 1995). The 18-item scale provides a 7-point Likert-type scale. Response options are strongly agree, somewhat agree, a little agree, neither agree nor disagree, a little disagree, somewhat disagree, and strongly disagree. Higher scores on this scale indicate higher levels of psychological well-being. The scale takes approximately 3-5 minutes to complete.

Reliability

Internal consistency (α) coefficients for the original 42-item scales ranged from .86 to .93 (Ryff, 1989). Reliability coefficients for the original 42-item scales over 6 weeks ranged from .81 to .88.

Validity

The shortened scale uses the same domains to establish a well-being score (Ryff & Keyes, 1995). The study using the shortened scale broke participants into similar groups young (n = 133), middle-aged (n = 805), and older adults (n = 160). Ryff and Keyes (1995) found that results from the shortened scale had a moderate to high correlation with the original scale. Intercorrelations of previous measures of well-being and the 18-item measure indicate the validity of the 18-item measure of well-being. The 18-item measure was positively correlated with prior measures of positive functioning. These results were significant with coefficients from .25 to .73. The 18-item measure was also negatively correlated with prior measures of negative functions functioning. These results were significant with coefficients from -.30 to -.60.

Data Analysis Plan

Data were collected via SurveyMonkey. Once collected, data were transferred to SPSS for analysis.

Research questions for this study were as follows:

RQ: Is there a relationship between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education?

H₀: There is no relationship between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education.

H_a: There is a relationship between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education.

A discriminant function analysis was used to analyze the gathered data. discriminant function analysis is a multivariate analysis that will provide more than one

solution (Diebold, 2019). In this study, there are four groups: (a) raised in single parent and did not pursue higher education, (b) dual parent and did not pursue higher education, (c) single parent and did pursue higher education, and (d) dual parent and did pursue higher education. In addition to the multivariate discriminant function analysis, factorial ANOVA results were also provided for each variable (grit, well-being, resilience) indicating group mean differences and interaction effects.

Threats to Validity

Validity is fundamental to a study as it concerns how substantial the results are. Internal validity refers to whether the study measures what it sets out to measure (Drost, 2011). External validity refers to the extent to which the results can be generalized across the population as a whole (Drost, 2011). In other words, does the study examine what it set out to examine, and are those results true for other people? Threats to validity are inevitable in all studies and precautions will be taken to minimize threats to validity.

Internal Validity

In this study, internal validity refers to the accuracy of the tools used to measure the variables of resilience, grit, and well-being. Threats to internal validity were the self-report nature of the tools being used. It was expected that participants would provide accurate responses. However, the participants might have wanted to represent themselves favorably. The participant may have also believed that there is a “right” answer. The surveys were administered and taken anonymously which was expected to minimize this threat to internal validity.

External Validity

This study used a random sampling of the 144 million panelists in SurveyMonkey Audience. Each panelist had an equal chance of being a participant included in the sample. Demographic information not directly related to this study was set to be consistent with United States Census data (e.g., gender ratio). Efforts were made to ensure that the results of this study are generalizable to the United States population. However, it could not be ruled out that the results were not specific to a population of people that engage in online surveys which may or may not be representative of the United States population.

Ethical Procedures

Before the collection of any data approval from the Walden University IRB was sought. The Walden University IRB reviewed the proposed research to ensure the proposed study adhered to ethical guidelines. Ethical conduct is paramount when conducting research, particularly when studying participants as humans. In this study risk to participants was minimal. Study participants were consenting adults between the ages of 18 and 24 years old. This population is not classified as vulnerable, and the study was not conducted at the researcher's workplace. In addition, the online survey format of this study ensured participant anonymity.

To allow potential participants the ability to make an informed decision about participation, all participants were notified of the study's intention and what was expected of participants via an informed consent form. The informed consent form was provided to all participants and covered the intent of the research, the procedures, and a

statement of confidentiality. The data collected was stored in a password-protected file on a password-protected computer. A second copy of the data was also stored on a password-protected external drive. Data will be stored in these locations for a minimum of five years.

Summary

This quantitative correlation study involved understanding associations between family structure, college attendance, grit, resilience, and well-being. I sought to determine the trait levels of individuals between the ages of 18 to 24 years old and how those levels related to their family structure and the choice to pursue postsecondary education. The BRS, the PWB, and the Grit-S were used in this study to determine levels of grit, resilience, and well-being among individuals between the ages of 18 to 24 years old. A correlational research design was used in this study to examine strength, type, and degree of relationships between variables in a sample using correlational statistics. Individuals between 18 and 24 represent the largest demographic of people enrolled in postsecondary education and were the target population for this study. I used an expanded definition of family structure which includes unmarried and same-sex couples within the dual parent category. Similarly, I used an expanded definition of children to include children from previous marriages and adopted children.

Surveys were distributed via SurveyMonkey's Audience service which pulls from a pool of people across the country. Participants were sorted into four groups based on their family structure. Groups one and two were people raised in single parent homes who either did or did not pursue higher education. Groups three and four were people

raised in dual parent households who either did or did not pursue higher education. Participants were asked to provide demographic information (see Appendix B), in addition to responding to prompts from the Grit-S (see Appendix D), BRS (see Appendix C), and PWB Scale (see Appendix E). The Short Grit Scale, BRS, and PWB Scale have previously been proven valid and reliable.

Data that were gathered via SurveyMonkey were transferred to SPSS for analysis. A discriminant function analysis was used to analyze gathered data. This produced multiple possible answers, but only statistically significant answers were interpreted. In addition, factorial ANOVA results were provided for each variable, indicating group mean differences and interaction effects.

Validity is a concern for all research. Steps were taken to avoid threats to validity whenever possible. For instance, internal validity could be threatened by participants feeling inclined to answer in ways that made them look good. To help avoid this type of issue, participant information was anonymous. I did not know participants' identities, removing this incentive. Steps were also taken to protect against threats to external validity by attempting to match demographic makeup of participants with U.S. Census data.

Participants were presented with informed consent information to ensure they could make informed decisions about their participation. I explained to participants the intent of this research and confidentiality procedures.

Chapter 4 includes a description of time frames for data collection as well as actual recruitment and response rates. Discrepancies during data collection from the plan

that was presented in Chapter 3 are discussed. An account of baseline descriptive and demographic characteristics of the sample is given, as well as how proportional the sample is to the larger population. Statistical analysis of the sample is presented.

Chapter 4: Results

The purpose of this correlational quantitative study was to examine relationships between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education. I looked at how profiles of grit, resilience, and well-being differentiate individuals between 18 and 24 raised in single- versus dual parent households and did or did not attend college. I intended to understand factors that promote achievement in early adulthood despite exposure to risk during formative years and highlight potential areas for future researchers to develop interventions for parents that would help promote grit and resilience regardless of family structure.

In Chapter 4, the purpose, research question, hypotheses, and data collection techniques of this study are reviewed. Furthermore, findings, including survey and participant information, descriptive statistics of scales, and testing of the research question and hypotheses are presented. The chapter concludes with a summary of information.

The research question and hypotheses for this study were:

RQ: Is there a relationship between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education?

H₀: There is no relationship between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education.

H_a: There is a relationship between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education.

Data Collection

Data were collected from July 20 to August 7, 2023. Of the 1,056 individuals who accessed the survey, 381 (36.1%) had sufficient data in terms of primary variables for analysis. Of these, 26 (6.8%) were raised in single parent households and did not attend college, 60 (15.7%) were raised in dual parent households and did not attend college, 115 (30.2%) were from single parent households and did attend college, and 180 (47.2%) were from dual parent households and did attend college. In 2021, 63.3% of the U.S. population who were 25 or older had at least attended some college (U.S. Census Bureau, 2022). In my sample, 77.4% of participants at least attended some college, and therefore were overrepresented. However, proportional differences in terms of educational attainment and parent household type were not statistically significant, with $\chi^2(1, N = 381) = 2.19$ and $p = .139$, so the imbalance by itself was not expected to affect primary analysis of my study.

Participant Demographics

Demographic data were collected regarding gender, education level, parents' education level, and parents' household income (see Table 1). Female participants made up 50.7% of the total participants. The median education level among participants was an associate degree, while the modal education level was some college. The median parental household income was \$50,000 to \$60,000 annually.

Table 1*Demographics*

Variable	Single parent, no college <i>n</i> (%)	Dual parent, no college <i>n</i> (%)	Single parent, college <i>n</i> (%)	Dual parent, college <i>n</i> (%)	Total <i>n</i> (%)
Sex					
Female	16 (66.7)	26 (49.1)	31 (31.0)	100 (61.0)	173 (50.7)
Male	8 (33.3)	25 (47.2)	66 (66.0)	63 (38.4)	162 (47.5)
Transgender		1 (1.9)	3 (3.0)		4 (1.2)
Prefer not to state		1 (1.9)		1 (0.6)	2 (0.6)
Edu level: Self					
< H.S. diploma	6 (25.0)	6 (11.3)			12 (3.5)
H.S. diploma or GED	18 (75.0)	47 (88.7)			65 (19.1)
Some college			32 (32.0)	64 (39.0)	96 (28.2)
Associate's			13 (13.0)	29 (17.7)	42 (12.3)
Bachelor's			36 (36.0)	56 (34.1)	92 (27.0)
Master's			14 (14.0)	7 (4.3)	21 (6.2)
Doctorate			5 (5.0)	8 (4.9)	13 (3.8)
Edu level: Parent					
< H.S. diploma	9 (37.5)	7 (13.2)	4 (4.0)	6 (3.7)	26 (7.6)
H.S. diploma or GED	8 (33.3)	19 (35.8)	14 (14.0)	15 (9.1)	56 (16.4)
Some college	3 (12.5)	12 (22.6)	25 (25.0)	37 (22.6)	77 (22.6)
Associate's					
Bachelor's	3 (12.5)	9 (17.0)	33 (33.0)	55 (33.5)	100 (29.3)
Master's		3 (5.7)	19 (19.0)	34 (20.7)	56 (16.4)
Doctorate	1 (4.2)	3 (5.7)	5 (5.0)	17 (10.4)	26 (7.6)
Parent(s) household income					
< 20,000	6 (25.0)	2 (3.8)	10 (10.0)	8 (4.9)	26 (7.6)
20,001-30,000	7 (29.2)	10 (18.9)	11 (11.0)	10 (6.1)	38 (11.1)
30,001-40,000	3 (12.5)	3 (5.7)	16 (16.0)	12 (7.3)	34 (10.0)
40,001-50,000	1 (4.2)	9 (17.0)	11 (11.0)	10 (6.1)	31 (9.1)
50,001-60,000	2 (8.3)	5 (9.4)	8 (8.0)	15 (9.1)	30 (8.8)
60,001-70,000		2 (3.8)	8 (8.0)	10 (6.1)	20 (5.9)
70,001-80,000	2 (8.3)	2 (3.8)	7 (7.0)	22 (13.4)	33 (9.7)

80,001-90,000	1 (4.2)	1 (1.9)	8 (8.0)	11 (6.7)	21 (6.2)
90,001-100,00		3 (5.7)	6 (6.0)	12 (7.3)	21 (6.2)
> 100,000		7 (13.2)	11 (11.0)	35 (21.3)	53 (15.5)
Not sure	2 (8.3)	8 (15.1)	3 (3.0)	16 (9.8)	29 (8.5)
Decline response		1 (1.9)	1 (1.0)	3 (1.8)	5 (1.5)

Results

Screening for Item Response Variance

With the Brief Resilience Scale (BRS), Short Grit Scale (Grit-S), and Psychological Well-being Scale (PWB) measures there was an equal balance of positively and negatively worded items. Thus, participants who answered every item the same were not discriminating between positively and negatively worded items, constituting what is known as the response set. Response sets are invalid and do not add to the meaningfulness of data.

To identify participants with no variance across items for each measure, an inter-item standard deviation (ISD) was computed for each participant regarding each of the three measures. An ISD of 0 indicates participants answered each item the same, whether positively or negatively worded. On BRS items, 38 (10.0%) participants had no variance, while for the grit items there were 19 (5.0%) with no variance, and for well-being items, there were 13 (3.4%). Overall, 40 unique participants had no variance in terms of one or more sets of items. These participants were eliminated from further analysis, yielding a population of 341. The 40 participants with no variance did not significantly differ in terms of mean age, nor proportionally differ in terms of group, sex, level of education, parents' level of education, or parent household income.

Screening for Unidimensionality and Reliability of Each Measure

Mean composite scores for items within measures are only valid if the set of items is unidimensional. To examine this, principal axis factor analysis with varimax rotation (uncorrelated factors) was conducted for each measure. Both the BRS and Grit-S yielded two-factor solutions. Initially, the well-being measure yielded a default eight-factor solution, but only the first two factors were well-defined, so a forced two-factor solution was computed. For all three measures, positively and negatively worded items were loaded using separate factors. Factor scores were saved and used instead of mean composite scores for further analysis. Because factor scores were used, reliability in terms of Cronbach's alpha was not valid. Instead, reliability was indexed by composite reliability using the factor loadings of each item that defined each factor. Composite reliability for low and high resilience factors was .72 and .66, respectively; for low and high grit factors, it was .67 and .61; and for low and high well-being factors, it was .90 and .89 (see Table 2).

Table 2

Rotated Factor Analysis Results for Resilience, Grit, and Well-being Items

Resilience items			
Item	Low resilience	High resilience	Item stem
BRS2	.719	.008	I have a hard time making it through stressful events.
BRS4	.678	.030	It is hard for me to snap back when something bad happens.
BRS6	.636	.008	I tend to take a long time to get over setbacks in my life.
BRS3	.106	.669	It does not take me long to recover from a stressful event.
BRS5	-.118	.609	I usually come through difficult times with little trouble.
BRS1	.056	.589	I tend to bounce back quickly after hard times.

Grit items			
Item	Low grit	High grit	Item stem
GRIT6	.679	.091	I have difficulty maintaining my focus on projects that take more than a few months to complete.
GRIT3	.583	.004	I have been obsessed with a certain idea or project for a short time but later lost interest.
GRIT1	.533	-.192	New ideas and projects sometimes distract me from previous ones.
GRIT5	.529	-.020	I often set a goal but later choose to pursue a different one.
GRIT8	-.054	.600	I am diligent.
GRIT4	-.141	.572	I am a hard worker
GRIT7	.066	.551	I finish whatever I begin.
GRIT2	.010	.390	Setbacks don't discourage me.
Psychological Well-being items			
Item	Low well-being	High well-being	Item stem
PWB14	.670	.133	I gave up trying to make big improvements or changes in my life a long time ago.
PWB8	.666	.122	In many ways I feel disappointed about my achievements in life.
PWB32	.646	.205	I don't have a good sense of what it is I'm trying to accomplish in life.
PWB39	.633	.096	My daily activities often seem trivial and unimportant to me.
PWB28	.629	.192	When I think about it, I haven't really improved much as a person over the years.
PWB16	.624	.073	I have not experienced many warm and trusting relationships with others.
PWB15	.617	-.004	The demands of everyday life often get me down.
PWB19	.600	-.027	My attitude about myself is probably not as positive as most people feel about themselves.
PWB33	.598	.116	I sometimes feel as if I've done all there is to do in life.
PWB12	.577	-.034	I have difficulty arranging my life in a way that is satisfying to me.
PWB18	.549	-.058	Maintaining close relationships has been difficult and frustrating for me.
PWB26	.549	.028	I do not fit very well with the people and the community around me.
PWB34	.520	.003	I feel like many of the people I know have gotten more out of life than I have.

PWB5	.498	.058	I feel like many of the people I know have gotten more out of life than I have.
PWB30	.495	-.070	I often feel lonely because I have few close friends with whom to share my concerns.
PWB9	.471	-.085	I live life one day at a time and don't really think about the future.
PWB42	.469	-.055	I often feel overwhelmed by my responsibilities.
PWB24	.437	-.122	I tend to be influenced by people with strong opinions.
PWB41	.429	-.106	It's difficult for me to voice my own opinions on controversial matters.
PWB25	.425	-.155	I do not enjoy being in new situations that require me to change my old familiar ways of doing things.
PWB10	.398	-.187	I tend to worry about what other people think of me.
PWB23	.025	.661	I have been able to build a living environment and a lifestyle for myself that is much to my liking.
PWB6	.008	.642	I enjoy making plans for the future and working to make them a reality.
PWB37	.072	.614	I have the sense that I have developed a lot as a person over time.
PWB40	.028	.610	I like most parts of my personality.
PWB20	.069	.603	I have a sense of direction and purpose in life.
PWB38	.104	.579	I enjoy personal and mutual conversations with family members and friends.
PWB22	.028	.577	In general, I feel confident and positive about myself.
PWB2	.096	.564	For me, life has been a continuous process of learning, changing, and growth.
PWB11	.019	.559	When I look at the story of my life, I am pleased with how things have turned out.
PWB17	.001	.544	I think it is important to have new experiences that challenge how you think about yourself and the world.
PWB3	.022	.539	In general, I feel I am in charge of the situation in which I live.
PWB36	.033	.538	I am quite good at managing the many responsibilities of my daily life.
PWB29	-.001	.533	Some people wander aimlessly through life, but I am not one of them.
PWB35	-.024	.524	I have confidence in my opinions, even if they are contrary to the general consensus.
PWB21	-.043	.521	I judge myself by what I think is important, not by the values of what others think is important.

PWB27	.044	.519	I know that I can trust my friends, and they know they can trust me.
PWB4	-.049	.500	People would describe me as a giving person, willing to share my time with others.
PWB7	-.085	.468	Most people see me as loving and affectionate.
PWB13	-.167	.363	My decisions are not usually influenced by what everyone else is doing.
PWB31	-.204	.304	When I compare myself to friends and acquaintances, it makes me feel good about who I am.
PWB1	-.093	.297	I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.

Screening for Factor Score Univariate Normality and Outliers by Group

Because the 4-level group variable (educational attainment X parent household type) is a key analysis variable in discriminant function analysis, screening for normality and univariate outliers on each factor score must be done separately for each group (Tabachnick & Fidell, 2007). For each group, skewness and kurtosis values for each factor score were within normal distribution values, and all minimum and maximum scores, which are pseudo-standardized scores, were within ± 3.29 , indicating no univariate outlier cases (Tabachnick & Fidell, 2007).

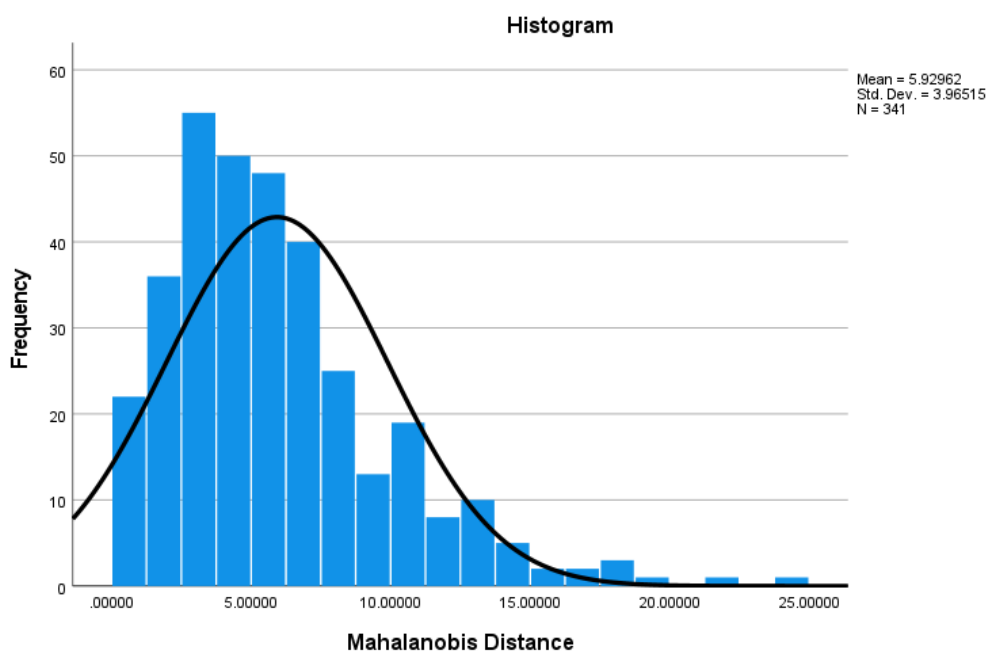
Screening for Multivariate Outliers

Following procedures outlined in Tabachnick and Fidell (2007) multivariate outliers were examined by regressing the six factor scores on a random variable. With six predictors the critical value for Mahalanobis distance is 22.458 at alpha level of .001. One participant had a Mahalanobis value slightly in excess of the critical value, but a histogram of the distribution did not indicate a substantial discontinuity and was,

therefore, not considered to be a multivariate outlier (Tabachnick & Fidell, 2007) (see Figure 1).

Figure 1

Distribution of Multivariate Outliers



Discriminant Function Analysis and ANOVA

The multivariate Discriminant Function Analysis was not statistically significant, Wilks's $\Lambda = .920$, $\chi^2(18, N = 341) = 27.80$, $p < .001$, Canonical R2 = .264. Though not significant, of the total variance explained in resilience, grit, and well-being by group membership, Function 1 accounted for 87.7%. Function 1 best discriminated dual parent (college) with a high function score ($M = .26$) from both single parent (no college) and dual parent (no college) with low function scores ($M = -.49$ and $-.36$, respectively). Based on the standardized canonical discriminant function coefficients, dual parent (college)

participants tended to have high scores on the low well-being factor (coefficient = .95) and scored lower on the low resilience factor (coefficient = -.31).

In follow-up univariate ANOVA analysis, only scores on the low well-being factor statistically significantly differed by group, $F(3, 337) = 5.55, p < .001, \eta^2 = .047$ (a medium-size effect) (see Table 4). Dual parent (college) participants had higher low well-being scores ($M = 0.21, SD = .94$) that statistically significantly differed from all other groups: single parent (no college) group ($M = -0.25, SD = .88, p = .024$), single parent (college) group ($M = -0.13, SD = .93, p = .004$), and dual parent dual parent (no college) group ($M = -0.28, SD = .94, p = .001$). There was no statistical difference in the high scores and mean scores between the four groups, but college graduates from dual parent homes had higher low well-being scores compared to the other three groups.

Table 3

Descriptive Statistics for BRS, Grit-S, and PWB

Group/Factor	<i>M</i>	<i>SD</i>	Mdn	Min	Max	S	K
Single parent, no college							
Low BRS	.109	.95	.017	-1.73	1.91	0.32	-0.28
High BRS	-.125	.83	-.234	-1.91	1.50	0.02	0.01
Low grit	.052	.77	-.020	-1.72	1.77	0.30	1.29
High grit	-.257	.82	-.448	-1.73	1.55	0.55	-0.24
Low well-being	-.254	.88	-.387	-2.52	1.41	-0.43	0.70
High well-being	-.286	.97	-.247	-2.36	2.04	0.41	0.82
Dual parent, no college							
Low BRS	-.067	.82	-.121	-1.80	1.61	0.15	-0.52
High BRS	.015	.86	.072	-1.56	1.82	0.08	-0.48
Low grit	-.099	.83	-.006	-1.83	1.14	-0.57	-0.65
High grit	-.114	.80	-.113	-1.74	1.55	0.06	-.069
Low well-being	-.278	.94	-.182	-2.52	1.69	-0.32	0.15
High well-being	-.186	.93	-.210	-2.09	2.04	0.49	0.04
Single parent, college							
Low BRS	-.041	.95	-.189	-1.80	2.32	0.47	-0.19

High BRS	.054	.87	.070	-2.32	1.82	-0.32	-0.20
Low grit	-.034	.81	-.044	-1.72	2.21	0.44	0.28
High grit	-.012	.86	-.063	-2.22	1.66	-0.12	-0.39
Low well-being	-.134	.93	-.099	-2.52	2.33	-0.12	0.16
High well-being	-.001	.92	-.103	-2.04	2.04	0.09	-0.46
Dual parent, college							
Low BRS	.030	.79	.074	-1.80	1.77	-0.04	-0.33
High BRS	-.020	.76	.031	-1.96	1.82	-0.19	-0.43
Low grit	.045	.85	.109	-1.86	2.16	-0.12	-0.38
High grit	.082	.75	.100	-1.74	1.85	-0.03	-0.48
Low well-being	.209	.95	.242	-2.52	2.01	-0.39	-0.01
High well-being	.103	.96	.104	-1.86	2.04	0.04	-1.00

Summary

The purpose of this correlational quantitative study was to examine the relationship between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education. I looked at how profiles of grit, resilience, and well-being differentiate individuals between 18 and 24 raised in single parent versus dual parent households as well as those who attended and did not attend college. I intended to understand factors that promote achievement in early adulthood despite exposure to risk during formative years and highlight potential areas for future researchers to develop interventions for parents that would help promote grit and resilience regardless of family structure.

The survey for this study had a 36.1% completion rate, resulting in 381 responses with sufficient data for analysis. In the survey sample, the percentage of people who attended some college (77.4%) was larger than the percentage of people in the U.S. general population who attended some college (63.3%). However, proportional differences in terms of educational attainment and parent household type were not

statistically significant, so this imbalance did not impact the main analysis of my study. Surveys with sufficient data for analysis were evaluated for response variance, which eliminated a further 40 participants resulting in a final population of 341. The research question was addressed by conducting a discriminant function analysis and ANOVA using SPSS. The discriminant function analysis did not show statistically significant results in terms of differences between the four groups. ANOVA analysis revealed only scores on the low well-being factor significantly differed in terms of dual parent college participants who had higher low well-being scores ($M = 0.21$, $SD = .94$) in comparison to other groups. While high scores and mean scores did not have statistically significant differences, low scores for college graduates from dual parent homes were higher than well-being scores in the other three groups. This suggests that individuals who have completed their college education and come from households where both parents are present tend to encounter comparatively lesser declines in terms of their overall state of well-being, in contrast to individuals belonging to the remaining three groups.

Chapter 5 includes a recap of study findings, an explanation of their significance, and discussion of the study's limitations. Additionally, suggestions for future research, potential implications for social change, and a conclusion are addressed.

Chapter 5: Discussion, Recommendations, and Conclusion

The purpose of this study was to explore connections between the choice to pursue postsecondary education, family structure, grit, resilience, and well-being among 18 to 24-year-olds. I compared levels of grit, resilience, and well-being in this population who fall into four distinct groups: those who were raised by a single parent and attended college, those who were raised by a single parent but did not attend college, those who were raised in a dual parent household and attended college, and those who were raised in a dual parent household but did not attend college. The objective was to gain a deeper understanding of factors that contribute to success in early adulthood among individuals who may have faced challenges during their upbringing.

Summary of Findings

Data were collected over a 19-day period from August to September 2023. Data were collected via an online survey using SurveyMonkey's audience panel. The following three scales were used: Brief Resilience Scale (BRS), Short Grit Scale (Grit-S), and Psychological Well-being Scale (PWB). In addition to these three measures, demographic information was collected (e.g., age, gender, ethnicity).

The survey had a completion rate of 36.1%, or 1,056 individual responses. Collected surveys were screened for completeness and response variance resulting, in a valid population of 341 for analysis. The sample population consisted of individuals from single parent and dual parent households who did and did not attend college. Educational attainment and parent household type imbalance in the sample was not statistically significant, implying that it should not impact primary analysis of the study. There was

no statistically significant difference in terms of proportion of the population based on demographic information.

The research question was: Is there a relationship between family structure, grit, resilience, well-being, and the choice to pursue postsecondary education? It was evaluated using a DFA. Results of the DFA were not statistically significant. Scores on these scales did not predict group membership. This means that although participants reported discrepancies in terms of resilience, grit, and well-being, they did not significantly differ between groups. While not statistically significant, low resilience scores for people from dual parent homes tended to be lower than other groups. Less resilient people from dual parent homes had higher levels of well-being than those in other groups. Similarly, low well-being scores for people from dual parent homes who attended college tended to be higher than other groups. A follow-up univariate ANOVA analysis had statistically significant results echoing the DFA results, indicating low well-being scores for people from dual parent homes who attended college tended to be higher than other groups. When looking at the range of well-being scores, high scores and mean scores did not have a statistical difference between the four groups. However, low well-being scores for college graduates from dual parent homes were higher than low well-being scores from the other three groups.

Interpretation of Findings

The theoretical framework for this study was the Resilience Theory. The Resilience Theory involves strengths that promote healthy development despite risk exposure. There are two types of promotive factors that allow people to address

adversity: assets and resources. Assets are promotive factors within individuals such as self-efficacy. Resources are promotive factors that are external to individuals, such as parental support. Assets and resources develop resilience in individuals in three different ways. Resilience can be developed prior to exposure to risk and interrupt negative effects of risk during risk exposure. Finally, the resiliency factor can be developed because of minor exposure to risk. Resources are important to this study in order to explain how external forces, like family structure, play a significant role in shaping healthy adolescent development and can be used to protect individuals from negative consequences of exposure to adverse experiences. The Resilience Theory framework was used to explain how some individuals succeed in postsecondary education despite risks of growing up in single parent homes. Results did not show a statistically significant association between resilience and family structure, grit, or well-being. Well-being did show an association with growing up in a dual parent home among those who graduated college. Specifically, low well-being scores for college graduates from dual parent homes were higher than low well-being scores for the other three groups. Success in higher education is positively correlated with grit and well-being (Mason, 2018; Wilcox & Nordstokke, 2019). Lin and Yi (2019) found adolescents from dual parent families experienced less decreases in terms of their well-being compared to their counterparts from single parent homes. This indicates college graduates from dual parent homes do not experience as significant decreases in terms of happiness compared to individuals in the other three groups.

I looked at connections between the choice to pursue postsecondary education, family structure, grit, resilience, and well-being among 18 to 24-year-olds. While past

research has not examined this topic, research has been done on these factors individually. A key component of this study was resilience. Resilience has a positive relationship with to positive outcomes such as academic achievement, academic persistence, and protection against risk exposure (Calo et al., 2019; Cleary et al., 2018; Meyer et al., 2020; Sakiz & Aftab, 2019; Shakir et al., 2020).

Calo et al. (2019) investigated correlations between grit, resilience, and mindset in a sample of physiotherapy students to determine whether demographic characteristics had any influence on these internal traits and found resilience had a positive relationship and factors like mental health and physical disability are negatively associated with resilience. Cleary et al. (2018) found a positive association between resilience and academic and clinical performance. Sakiz and Aftab (2019) examined associations between academic achievement, resilience, and sociodemographic factors, and whether resilience played a mediating role in these relationships and found a significant relationship between academic achievement and resilience, which was affected by factors like income level and school type. Additionally, resilience was found to have a positive relationship with academic achievement and sociodemographic factors. Unlike these studies, results of both DFA and ANOVA did not indicate a statistically significant difference in terms of resilience levels between these four groups.

Another important component of this study was well-being. Growing up in a single parent home exposes individuals to risks affecting well-being (Guo, 2019; Lin & Yi, 2019; Wasserman, 2020). Wasserman (2020) found family structure had an impact on children's academics and well-being, with single parent homes presenting additional

challenges to children (e.g., lack of parental involvement) leading to lower academic performance and increased behavioral problems when compared to children from dual parent homes. Guo (2019) revealed that people who were raised in dual parent households reported higher levels of subjective well-being in comparison to those who came from single parent households. Additionally, belonging to a single parent family was associated with decreased levels of maternal and peer attachment, and general self-efficacy, and ultimately resulted in lower subjective well-being. Lin and Yi (2019) observed a decrease in well-being during the adolescent stage of developmental. However, Lin and Yi indicated adolescents living in households with two parents exhibited less decrease in levels of well-being in comparison to those from single parent households.

The results of this study showed the difference of mean well-being scores was not statistically significant between single parent or dual parent homes. However, when looking at the range of well-being scores from people raised in dual parent homes who went to college, the low end is higher than that of people raised in single parent homes. Indicating that individuals in the other three groups experienced more significant decreases in happiness compared to college graduates from dual parent homes. This suggests that having two parents in the home and graduating college act as protective factors to well-being by resulting in less significant decreases in well-being.

Finally, the research study explored what relationship grit has with the choice to pursue post-secondary education, family structure, resilience, and well-being. Research indicates that grit acts as an asset allowing individuals to doggedly pursue their goals

despite challenges and has been positively associated with well-being, resilience, and academic success (Akbag & Ümmet, 2017; Calo et al., 2019; Hossain et al., 2022; Meyer et al., 2020; Sakiz & Aftab, 2019; Shakir et al., 2020). Akbag & Ümmet (2017) investigated the correlation between grit and subjective well-being in young adults. Akbag & Ümmet found that a positive relationship exists between the satisfaction of basic needs and grit. Furthermore, they found that females generally experience higher levels of subjective well-being compared to males. Both the satisfaction of basic needs (i.e., autonomy, competence, and relatedness) and gender significantly impact subjective well-being, alongside grit. However, satisfaction of basic needs had a stronger correlation with well-being than grit and gender.

Calo et al. (2019) found that grit had a positive relationship with resilience. Similarly, Meyer et al. (2020) investigated the correlation between resilience and grit in nursing students before they obtained their licenses. The results of the study conducted by Meyer et al. revealed a positive relationship between resilience and grit, specifically indicating a moderate connection between resilience and the persistent aspect of grit. The study conducted by Shakir et al. (2020) examined how common burnout is among neurosurgery residents and sought to establish the connection between burnout, grit, and resilience. Shakir et al. found that grit and resilience had a positive relationship. Furthermore, Shakir et al. found that burnout has a negative association with both grit and resilience. However, the results of the current study did not indicate any statistically significant relationship between grit, resilience, well-being, or any sociodemographic factors.

Limitations

There were several limitations to this study. First, the population surveyed was limited to those already a part of the SurveyMonkey Audience. For example, the people from single parent homes who did not go to college were the smallest group. This suggests that this population is disproportionately underrepresented on the platform. Ultimately the small sample size did not affect the analysis, but it does suggest that the SurveyMonkey Audience is primarily used by specific demographics and consequently provides a disproportionate sample.

Another limitation is the results of the composite reliability analysis. The low and high well-being factors were .90 and .89, well above the cutoff score of .70 for internal consistency (see Table 2). However, the low and high scores for resilience were, .72 and .66, and grit factors, .67 and .61, were below the acceptable range for internal consistency. This indicates that the factors on the grit scale and resilience scale were not accurately testing grit and resilience. Thus, the overall analysis may not have been able to measure grit and resilience to determine if they were predictive of group membership or sort of statistically significant difference between the groups.

The self-report nature of the survey poses another limitation. While students were asked to give truthful answers, the fact that it was a self-report questionnaire may have resulted in some participants not being completely honest. Some participants may have misunderstood the questions, leading to inaccurate responses. Additionally, individuals may have felt pressure to provide the "correct" answers in order to present themselves in

a favorable light or achieve a higher score on the assessment. Respondents may have deliberately provided inaccurate answers to represent a specific image of themselves.

Recommendations

The results of this study provided information on the relationship between family structure, grit, resilience, well-being, and the choice to pursue post-secondary education. Future research should focus on the relationship between specific risks associated with growing up in a single parent home and their relationship with grit, resilience, well-being, and the choice to pursue post-secondary education. For example, one influential factor in the risk experienced by individuals in single parent homes is fewer financial resources (Wasserman, 2020). Lower socioeconomic status is associated with higher risk, and understanding if socioeconomic status has a disproportionate effect on grit, resilience, well-being, and the choice to pursue post-secondary education would provide insight into the influential factors associated with growing up in a single parent home. Furthermore, future research should look at the relationship between family structure, grit, resilience, well-being, and academic performance in post-secondary education. Previous research has examined the role of grit, resilience, well-being, and academic performance in post-secondary education and found a positive correlation among the variables (Calo et al., 2019; Guo, 2019). However, this research does not consider family structure. Understanding if the effects of family structure continue into early adulthood would provide insight into the lasting effects of childhood and adolescent family structure and the role of grit, resilience, and well-being in mediating these effects.

Future quantitative research should be carried out with individuals in single parent households who are pursuing post-secondary education. The aim should be to investigate the specific factors, either independently or in combination, that may contribute to attrition. Conducting research in this direction could offer valuable insights to both pre- and post-secondary institutions, enhancing their understanding of the challenges faced by students from single parent homes and enabling them to provide better support for their growth and development. Ultimately, this research could serve as a foundation for improving post-secondary attendance and completion rates for individuals raised in single parent households.

Furthermore, it is advised that future studies employing a combination of qualitative and quantitative methods be carried out on individuals who were brought up in single parent households in order to investigate their specific encounters with the difficulties associated with this family dynamic. Researchers should seek to create effective strategies for addressing these challenges, which could ultimately enhance overall preparedness for higher education, readiness for career development, and achievement rates for graduation.

Finally, it is recommended that this research study be replicated on a larger sample size to confirm whether there is indeed no correlation between family structure, grit, resilience, well-being, and the decision to pursue higher education. Additionally, future research endeavors should employ a longitudinal approach to explore how grit, resilience, and well-being evolve in individuals raised in single parent households from

childhood to young adulthood, to assess any changes that may occur as the individual develops and matures.

Implications for Social Change

The significance of this study lies in the limited information and research available regarding the influence of family structures on the decision to pursue higher education. Similarly, there is a lack of understanding about the impact of grit, resilience, and well-being on this decision. This lack of information is concerning because past research has demonstrated that family structure affects academic achievement (Huang et al., 2017; Wasserman, 2020; Tobishima, 2018). Furthermore, previous studies have shown a positive association between grit, resilience, well-being, and academic achievement (Akbag & Ümmet, 2017; Calo et al., 2019; Hossain et al., 2022; Meyer et al., 2020; Sakiz & Aftab, 2019; Shakir et al., 2020). The findings of this research can be utilized to develop better services targeted at this specific population, thus creating a more inclusive college environment that supports the success of students from diverse backgrounds.

According to Wasserman (2020), individuals from single parent homes are exposed to a host of risks, including a lack of financial resources, that negatively impact their functioning. Tompsett and Knoester (2023) suggest that socioeconomic status has a positive relationship with the choice to pursue higher education and that individuals from single parent homes are less likely to go on to pursue higher education. Zimmerman (2013) suggests that resilience can act as a protective factor against the negative impact of risk exposure, by intervening during the time of exposure. Sakiz and Aftab (2019)

highlight the consistent link between resilience and academic achievement. By helping students develop resilience and mitigating the risks associated with growing up in a single parent home, we can boost their chances of graduating high school, being fully prepared for college, and successfully navigating their college careers. Ultimately, this can lead to higher college graduation rates, as they are equipped with the necessary skills to effectively cope with the challenges they may face.

Conclusion

Many high school graduates choose to continue their education at the college level. In 2018, more than nineteen million Americans enrolled in higher education institutions, driven by the potential for better job prospects (U.S. Department of Education, 2021; Strada-Gallop, 2018). Obtaining a higher education degree is linked to higher wages, job security, and improved health (Baum, 2017; Bureau of Labor Statistics, 2020). Resilience, grit, and well-being play a significant role in an individual's post-secondary educational success (Calo et al., 2019; Jumat et al., 2020; Mason, 2018; Wilcox & Nordstokke, 2019). Past research has shown that the negative impact of growing up in a single parent household can pose challenges that may discourage individuals from pursuing higher education (Huang et al., 2017; Tobishima, 2018; Tompsett & Knoester, 2023; Wasserman, 2020). There is a lack of information on the relationship between family structure, grit, resilience, well-being, and the choice to pursue post-secondary education. This is problematic because these traits could help mitigate the risks associated with a childhood spent in a single parent home, a situation

facing 44% of families in the United States (Federal Interagency Forum on Child and Family Statistics, 2020).

A review of the literature showed many studies on how living in a single parent household affected children and adolescents (Huang et al., 2017; Tobishima, 2018; Wasserman, 2020). Past research also shows how grit, resilience, and well-being are correlated with academic performance (Calo et al., 2019; Hernández et al., 2019; Jumat et al., 2020; Seppälä et al., 2020). However, no research considers the influence of grit, resilience, and well-being on children and adolescents living in single parent households. Furthermore, there was no research examining the influence of grit, resilience, and well-being on post-secondary students who were raised in in single parent households. Thus, the necessity of conducting this research study stemmed from the lack of information available.

Using the Resilience Theory as a framework to examine the influence of promotive factors on human development. Resilience Theory focuses on understanding how positive variables, known as promotive factors, can facilitate healthy development despite risk exposure (Zimmerman, 2013). These promotive factors fall into two categories: assets, which are factors within the individual, and resources, which are factors external to the individual. They operate in three modes: protecting against risk, compensating for risk, or resulting from moderate risk exposure (Fergus & Zimmerman, 2005). Previous research has shown that grit, a trait promoting resilience, can protect against risk and correlate with academic achievement (Calo et al., 2019; Hernández et al., 2019; Jumat et al., 2020; Seppälä et al., 2020). Growing up in a single parent home

exposes individuals to various risks that impact their academic performance and attainment (Huang et al., 2017; Tobishima, 2018; Wasserman, 2020). Therefore, this study will explore the role of resilience as a trait in individuals who pursue higher education despite the risks associated with their family structure, making Resilience Theory a suitable framework.

Using a quantitative research approach, a survey research design was employed to collect data from 18–24-year-olds. Participants were placed into one of four groups, single parent home and did go to college, single parent home and did not go to college, dual parent home and did go to college, dual parent home and did not go to college. Included in the survey were questions regarding grit, resilience, and well-being. Discriminant function analysis was used to analyze the research data to determine the extent to which there is a relationship between family structure, grit, resilience, well-being, and the choice to pursue post-secondary education. The results were not statistically significant in that the difference between the levels of grit, resilience, and well-being did not predict group membership. A follow-up ANOVA test was conducted which indicated that the low well-being scores for people from dual parent homes who attended college tended to be higher than the other groups, suggesting people from dual parent homes who attended college were happier than the least happy of the other groups. This research study contributes to the existing knowledge in the field in two ways; it is unique and provides direction for future research. It is the first study to examine the relationship between grit, resilience, well-being, family structure, and the choice to pursue post-secondary education. It showed that well-being was correlated with college

graduates from dual parent homes, and it also suggests that factors such as grit, resilience, and well-being may not play a substantial role in the decision to pursue higher education.

This study used a Resilience Theory framework to explore the relationships between post-secondary education choices, family structure, grit, resilience, and well-being. Findings indicated that grit, resilience, and well-being did not predict group membership, but college graduates from dual parent homes experienced less pronounced declines in well-being. Overall, this study adds to the existing knowledge in the field and offers guidance for future research.

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Appendix A: Online Advertisement

Social Media Advertisement:

Hello, my name is Joshua Ireland. I am a doctoral student at Walden University. I am currently looking for participants for my dissertation research. I would like to invite all 18- to 24-year-olds living in the United States to participate. If you are in this age range and are interested in participating, please click the link below to read more detailed information regarding the study and to provide consent to participate. The total time to complete the survey is about 15 to 20 minutes. Also, if you know anyone who may be interested, please forward the link so they may participate in the study as well. Thank you for your time and support.

Onward!

Link:

Twitter Advertisement:

Hello, I'm looking for 18- to 24-year-olds living in the United States interested in participating in my dissertation research. It will take about 15 to 20 minutes to complete. Please click the link for more information. If you know anyone who may be interested, please forward the link so they may participate in the study as well. Thank you!

Onward!

Link:

Walden Participant Pool Advertisement:

Hello, my name is Joshua Ireland, and I am a doctoral student here at Walden University. I am currently looking for participants for my dissertation research. I would like to invite

all 18- to 24-year-olds living in the United States to participate. If you are in this age range and are interested in participating, please click the link below to read more detailed information regarding the study and to provide consent to participate. The total time to complete the survey is about 15 to 20 minutes. Also, if you know anyone who may be interested, please forward the link so they may participate in the study as well. Thank you for your time and support.

Onward!

Link:

Appendix B: Demographics and Socioeconomic Status Questionnaire

Demographics:

1. Gender
2. Age
3. Ethnicity

4. What is your highest degree earned?

- Less than a high school diploma
- High school diploma or equivalency (GED)
- Some college or
- Bachelor's degree
- Master's degree
- Doctorate, Professional (MD, JD, DDS)
- None of the above, please specify other: _____

Socioeconomic Status:**5. What is the highest degree your parents have earned?**

- Less than a high school diploma
- High school diploma or equivalency (GED)
- Some college or vocational degree/license
- Bachelor's degree
- Master's degree
- Doctorate, Professional (MD, JD, DDS)
- None of the above, please specify other: _____

6. Between the ages of 5 years old and 18 years old how many people lived in your household at one time, including yourself?**7. Of these people, how many are children ≤ 18 years old?****8. During that time was the household a single parent or two-parent household?**

- 4. Which of these categories best describes your parent(s) total combined family income for your household for the past 12 months? This should include income (before taxes) from all sources, wages, rent from properties, social security, disability and/or veteran's benefits, unemployment benefits, workman's compensation, help from relatives (including child payments and alimony), and so on.**

- Less than \$20,000
- Between \$20,001 and \$30,000
- Between \$30,001 and \$40,000
- Between \$40,001 and \$50,000
- Between \$50,001 and \$60,000
- Between \$60,001 and \$70,000
- Between \$70,001 and \$80,000
- Between \$80,001 and \$90,000
- Between \$90,001 and \$100,000
- Greater than \$100,000
- Do not Know/Not sure.
- Decline to respond.

- 5. What is your parent(s) occupation?**

Appendix D: Brief Resilience Scale (BRS)

Please respond to each item by marking one box per row.					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I tend to bounce back quickly after hard times.	1	2	3	4	5
I have a hard time making it through stressful events.	5	4	3	2	1
It does not take me long to recover from a stressful event.	1	2	3	4	5
It is hard for me to snap back when	5	4	3	2	1

something bad					
happens.					
I usually					
come through					
difficult times	1	2	3	4	5
with little trouble.					
I tend to					
take a long time to					
get over setbacks	5	4	3	2	1
in my life.					

Responses range from strongly disagree to strongly agree. Prompts 2, 4, and 6 are reverse scored.

Scoring: Add the responses varying from 1-5 for all six items giving a range from 6-30.

Divide the total sum by the total number of questions answered.

Score: _____ item average / 6

Appendix E: Short Grit Scale (Grit-S)

Directions for taking the Grit-S: Here are a number of statements that may or may not apply to you. For the most accurate score, when responding, think of how you compare to most people -- not just the people you know well, but most people in the world. There are no right or wrong answers, so just answer honestly!

- 1 New ideas and projects sometimes distract me from previous ones.
- Very much like me Mostly like me Somewhat like me Not much like me Not like me at
all
- 2 Setbacks don't discourage me.
- Very much like me Mostly like me Somewhat like me Not much like me Not like me at
all
- 3 I have been obsessed with a certain idea or project for a short time but later lost interest.
- Very much like me Mostly like me Somewhat like me Not much like me Not like me at
all
- 4 I am a hard worker.
- Very much like me Mostly like me Somewhat like me Not much like me Not like me at
all
- 5 I often set a goal but later choose to pursue a different one.
- Very much like me Mostly like me Somewhat like me Not much like me Not like me at
all
- 6 I have difficulty maintaining my focus on projects that take more than a few months to complete.

	Very much like me	Mostly like me	Somewhat like me	Not much like me	Not like me at all
7	I finish whatever I begin.				
	Very much like me	Mostly like me	Somewhat like me	Not much like me	Not like me at all
8	I am diligent.				
	Very much like me	Mostly like me	Somewhat like me	Not much like me	Not like me at all

Scoring: For questions 2, 4, 7, and 8 assign the following points:

5 = Very much like me

4 = Mostly like me

3 = Somewhat like me

2 = Not much like me

1 = Not like me at all

For questions 1, 3, 5, and 6 assign the following points:

1 = Very much like me

2 = Mostly like me

3 = Somewhat like me

4 = Not much like me

5 = Not like me at all

Add up all the points and divide by 8. The maximum score on this scale is 5 (extremely gritty), and the lowest score on this scale is 1 (not at all gritty).

Appendix F: Psychological PWB Scale

PWB (42 items)

Age: Adult

Duration: 6-8 minutes

Number of items: 42

Answer Format: 1 = strongly agree; 2 = somewhat agree; 3 = a little agree; 4 = neither agree or disagree; 5 = a little disagree; 6 = somewhat disagree; 7 = strongly disagree.

Instructions: Circle one response below each statement to indicate how much you agree or disagree.

1. "I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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2. "For me, life has been a continuous process of learning, changing, and growth."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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3. "In general, I feel I am in charge of the situation in which I live."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
-------------------	-------------------	-------------------	-------------------------------	----------------------	----------------------	----------------------

4. "People would describe me as a giving person, willing to share my time with others."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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5. "I am not interested in activities that will expand my horizons."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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6. "I enjoy making plans for the future and working to make them a reality."

- | | | | | | | |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
| Strongly agree | Somewhat agree | A little agree | Neither agree nor disagree | A little disagree | Somewhat disagree | Strongly disagree |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
7. "Most people see me as loving and affectionate."
- | | | | | | | |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
| Strongly agree | Somewhat agree | A little agree | Neither agree nor disagree | A little disagree | Somewhat disagree | Strongly disagree |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
8. "In many ways I feel disappointed about my achievements in life."
- | | | | | | | |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
| Strongly agree | Somewhat agree | A little agree | Neither agree nor disagree | A little disagree | Somewhat disagree | Strongly disagree |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
9. "I live life one day at a time and don't really think about the future."
- | | | | | | | |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
| Strongly agree | Somewhat agree | A little agree | Neither agree nor disagree | A little disagree | Somewhat disagree | Strongly disagree |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
10. "I tend to worry about what other people think of me."
- | | | | | | | |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
| Strongly agree | Somewhat agree | A little agree | Neither agree nor disagree | A little disagree | Somewhat disagree | Strongly disagree |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
11. "When I look at the story of my life, I am pleased with how things have turned out."
- | | | | | | | |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
| Strongly agree | Somewhat agree | A little agree | Neither agree nor disagree | A little disagree | Somewhat disagree | Strongly disagree |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
12. "I have difficulty arranging my life in a way that is satisfying to me."
- | | | | | | | |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
| Strongly agree | Somewhat agree | A little agree | Neither agree nor disagree | A little disagree | Somewhat disagree | Strongly disagree |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
13. "My decisions are not usually influenced by what everyone else is doing."
- | | | | | | | |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
| Strongly agree | Somewhat agree | A little agree | Neither agree nor disagree | A little disagree | Somewhat disagree | Strongly disagree |
|----------------|----------------|----------------|----------------------------|-------------------|-------------------|-------------------|
14. "I gave up trying to make big improvements or changes in my life a long time ago."

	Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
15. "The demands of everyday life often get me down."							
16. "I have not experienced many warm and trusting relationships with others."							
17. "I think it is important to have new experiences that challenge how you think about yourself and the world."							
18. "Maintaining close relationships has been difficult and frustrating for me."							
19. "My attitude about myself is probably not as positive as most people feel about themselves."							
20. "I have a sense of direction and purpose in life."							
21. "I judge myself by what I think is important, not by the values of what others think is important."							

22. "In general, I feel confident and positive about myself."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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23. "I have been able to build a living environment and a lifestyle for myself that is much to my liking."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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24. "I tend to be influenced by people with strong opinions."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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25. "I do not enjoy being in new situations that require me to change my old familiar ways of doing things."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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26. "I do not fit very well with the people and the community around me."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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27. "I know that I can trust my friends, and they know they can trust me."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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28. "When I think about it, I haven't really improved much as a person over the years."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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29. "Some people wander aimlessly through life, but I am not one of them."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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30. "I often feel lonely because I have few close friends with whom to share my concerns."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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31. "When I compare myself to friends and acquaintances, it makes me feel good about who I am."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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32. "I don't have a good sense of what it is I'm trying to accomplish in life."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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33. "I sometimes feel as if I've done all there is to do in life."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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34. "I feel like many of the people I know have gotten more out of life than I have."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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35. "I have confidence in my opinions, even if they are contrary to the general consensus."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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36. "I am quite good at managing the many responsibilities of my daily life."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
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37. "I have the sense that I have developed a lot as a person over time."

	Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
38. "I enjoy personal and mutual conversations with family members and friends."							
39. "My daily activities often seem trivial and unimportant to me."							
40. "I like most parts of my personality."							
41. "It's difficult for me to voice my own opinions on controversial matters."							
42. "I often feel overwhelmed by my responsibilities."							

Scoring:

The Autonomy subscale items are Q1, Q13, Q24, Q35, Q41, Q10, and Q21.

The Environmental Mastery subscale items are Q3, Q15, Q26, Q36, Q42, Q12, and Q23.

The Personal Growth subscale items are Q5, Q17, Q28, Q37, Q2, Q14, and Q25.

The Positive Relations with Others subscale items are Q7, Q18, Q30, Q38, Q4, Q16, and Q27.

The Purpose in Life subscale items are Q9, Q20, Q32, Q39, Q6, Q29, and Q33.

The Self-Acceptance subscale items are Q11, Q22, Q34, Q40, Q8, Q19, and Q31.

Q1, Q2, Q3, Q4, Q6, Q7, Q11, Q13, Q17, Q20, Q21, Q22, Q23, Q27, Q29, Q31, Q35, Q36, Q37, Q38, and Q40 should be reverse-scored. Reverse-scored items are worded in the opposite direction of what the scale is measuring. The formula for reverse-scoring an item is:

$((\text{Number of scale points}) + 1) - (\text{Respondent's answer})$

For example, Q7 is a 7-point scale. If a respondent answered 3 on Q7, you would re-code their answer as: $(7 + 1) - 3 = 5$. In other words, you would enter a 5 for this respondent's answer to Q7.

To calculate subscale scores for each participant, sum respondents' answers to each subscale's items.