

The *Gritty* Black Single Mother: Protective Factors and the Influence of Black
Single Mother's Grit on Young Adult Outcomes

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“The *Gritty* Black Single Mother: Protective Factors and the Influence of Black Single Mother’s Grit on Young Adult Outcomes”
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ABSTRACT

TITLE: The *Gritty* Black Single Mother: Protective Factors and the Influence of Black Single Mother's Grit on Young Adult Outcomes

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Over the span of decades, literature has highlighted that offspring from *Black Single Maternal Caregiver Households* (BSMCH) will experience negative outcomes, including academic deficits and psychological distress, as a function of the adversarial barriers (i.e. low socioeconomic status, mother's lack of educational attainment, and ecological threats) encountered within their environment. Despite the apparent potential negative outcomes, there are numerous examples of Black offspring from BSMCH who are resilient and successful, despite dire familial circumstances. However, their stories do not appear to be reflected in the literature. The purpose of this study was to reveal the untold story of resilient Black offspring from BSMCH by identifying the relationship between the ability of Black single maternal caregivers to persevere towards a targeted goal despite encountering obstacles, which is known as *grit* (Duckworth, 2007), and the positive outcomes of their offspring. Specifically, the offspring's internalized level of *grit* presumably modeled by their maternal caregivers, *academic achievement*, and *psychological well-being* was examined. Through multivariate and regression analysis of archival data that included Black and White offspring raised in single maternal caregiver

households, this study investigated the impact of single maternal caregiver grit on offspring outcomes. The results of the present study showed that there were significant differences in offspring's perception of their single maternal caregiver's grittiness as a function of race. White offspring perceived their maternal caregivers as having more consistency of interest (a subscale of *grit*) than the Black offspring. The findings also supported the claim of transgenerational modeling effects of grit from the single maternal caregiver in that the offspring demonstrated similar scores of *grit* for themselves as they did for their maternal caregivers. However, further investigation suggested that there may be additional contributing factors related to the development of one's passion and perseverance for long term goals, beyond transgenerational modeling effects. This was evidenced by Black offspring perceiving themselves as having moderately higher consistency of interest than their maternal caregivers. There were no gender differences among the relationship between offspring *grit* scores, and psychological well-being and academic achievement.

TABLE OF CONTENTS

Acknowledgement	vii
Dedication	viii
Introduction	1
Background: Risk Factors	4
Protective Factors Contributing to Resiliency	10
<i>It Takes a Village</i>	12
<i>The Faith of a Mustard Seed</i>	16
<i>Social Learning Theory</i>	19
Grit and Positive Successful Outcomes	24
Outcomes of Offspring and Potential Indicators of Grit	29
<i>Offspring Outcomes: Academic Achievement</i>	29
<i>Offspring Outcomes: Psychological Distress & Well-Being</i>	38
Study Goals, Purpose, & Aims	43
Hypotheses	43
Methods	45
Study Design	45
Participants	45
Procedure	48
Measures	49
Results	58
Preliminary Analysis	58
<i>One-way Analysis of Variance (ANOVAs)</i>	58
<i>Chi-Square Tests of Independence</i>	61
<i>Correlational Matrix of Demographic Variables</i>	72
<i>Exploratory Factor Analysis of GRIT</i>	75
Main Analysis	78
Hypothesis 1	78
Hypothesis 2	78

Hypothesis 3	81
Hypothesis 4	82
Hypothesis 5	83
Hypothesis 6	84
Discussion	86
Study Limitations and Future Research	89
References	93
Appendix	107
Appendix A	108
Appendix B	110
Appendix C	121
Appendix D	125
Appendix E	129
Appendix F	132
Appendix G	134

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DEDICATION

To my mommy,

Dr. Crystal D. Williams,

whose example will forever inspire me to follow my heart, persevere, and overcome any obstacle I may encounter. I could not have completed this without your encouragement, unwavering support, and guidance. May I continue to show you that the unconditional love, support, and *grittiness* you exemplify will always be ingrained in my spirit.

I love you!

To my bestie,

Lindsey M. Majors.

From the beginning, you have gracefully rose to the challenge of single motherhood. Layla-bug is blessed to have a mother as loving and *gritty* as you.

I am beyond proud of you!

INTRODUCTION

What do the following share?

- A billionaire business mogul and philanthropist.
- An Emmy and Academy award nominated actress.
- A world renowned retired professional basketball player.
- An inspirational award winning poet, author and civil rights activist.
- A groundbreaking urban clothing designer, entrepreneur, motivational speaker, and Shark Tank television personality.
- A Grammy award winning singer and song writer.
- A multi-award winning actor and producer.
- One of NBA's 50 greatest players in history, former head coach of the Indiana Pacers and New York Knicks and president of the New York Liberty women's basketball team.
- The leader of the Harlem Renaissance, novelist, and poet.
- The first Black-American woman CEO of a Fortune 500 company.
- A revolutionary civil rights activist.
- A Golden Globe and Academy Award winning actress.
- One of the wealthiest hip hop artists who has sold over 100 million records and won 21 Grammys.

The individuals described above have earned remarkable achievements and share at least one commonality in their upbringing. They have all reported having a strong foundation created within a *Black single maternal caregiver household (BSMCH)*. Yet for decades, negative societal images, portray the BSMCH as “broken,” “deviant” and “in crisis” (Barber & Eccles, 1992; Lindblad-Goldberg, 1989; Causey, Livingston & High, 2015; Sudarkasa, 1997). The societal perception that *Black single maternal caregiver (BSMC)* families are “broken” have portrayed the BSMC

as raising offspring who are at a heightened risk for inevitable failure as a function of:

- the household's *low socioeconomic status (SES)*, (Daryanani, Hamilton, Abramson & Alloy, 2016; Causey, Livingston & High, 2015; McCreary & Dancy, 2004; Olson & Banyard, 1993),
- the BSMC's *lack of education and gainful employment* (McLoyd, Jayaratne, Ceballo & Borquez, 1994; Quinn & Allen, 1989; Jones, 1984),
- *limited access to resources* (Hummer & Hamilton, 2010; Kim & Brody, 2005; McAadoo, 1995) for the BSMCH to utilize, and
- *other ecological threats related to crime* associated within impoverished communities (Brodsky, 1999).

Additionally, these factors have been attributable to the offspring's lack of adaptive functioning in society. Studies continuously report that the offspring of BSMC are more likely to demonstrate *psychological distress* (Amato, 2001; Murry & Brody, 1999; McLoyd, Jayaratne, Ceballo & Borquez, 1994; Murry, Bynum, Brody, Willert, & Stephens, 2001; Barber & Eccles, 1992; Goodrum, Jones, Kincaid, & Cuellar, 2012, Anton, Jones, Youngstrom, 2015), *behavioral disturbances* (Amato, 2001), and *lack of academic achievement and poor performance* (Barber & Eccles, 1992; Lindblad-Goldberg, 1989; Amato, 2001). Due to the primarily negatively focused research regarding BSMCH in terms of their high-risk environments and expected poorer outcomes, it stands to reason that there would also be negatively perceived attributions regarding the long-term outcomes for their offspring.

Despite the negative contributing factors of more risks related to being impoverished that increases the vulnerability of BSMCH offspring to potentially experience negative long term outcomes, one cannot deny the proportion of BSMCH offspring who defy their odds by demonstrating resiliency, with the opening list of

successful public figures serving as examples. Such populations despite their early life obstacles can adapt, be productive, well-functioning, healthy offspring who demonstrate perseverance in striving towards targeted goals, such as earning academic achievements, and the attainment of psychological health and well-being.

Such positive resilient offspring outcomes serve as a stark contrast to what the literature describes as being associated with the high-risk environments of the BSMCH, as illuminated above. These more resilient successful offspring of BSMCH who have been overlooked, highlight potential gaps in the literature, which may require a shift in future studies examining what are the potential inherent strengths of the BSMC, and her community, which may foster not only resiliency, but lead to odds-defying successful stories like that of:

- Maya Angelou, renowned poet and political activist;
- Ursula Burns, the 1st Black CEO of a Fortune 500 Company,
- Isaiah Thomas, successful athlete and owner of an expansion basketball team, and WNBA Liberty President.

It is imperative for studies to shift from solely focusing on the predictors of negative outcomes in BSMCHs' offspring to the etiological factors that foster resiliency and perseverance toward targeted achievement goals, and success. This shift will allow for a more inclusive and accurate depiction and understanding of BSMCH. In other words, future studies should focus on asking the research question, "How does one produce an Oprah Winfrey, Angela Bassett, Shaquille O'Neal, Maya Angelou, Daymond John, Mary J. Blige, Samuel L. Jackson, Isiah Thomas, Langston Hughes, Ursula Burns, Malcolm X, Octavia Spencer, and Jay-Z to be such influential transformative world figures, amid the myriad of untenable barriers of the BSMCH?" However, before one can solve the problem, the problem must first be identified and defined.

Background: Risk Factors Associated with Black Single Maternal Caregiver Households (BSMCH): Low Socioeconomic Status, Limited Resources, and Ecological Threats Within Poorer Neighborhoods

Research indicates that all single mother headed households, in comparison to two-parent households, are more likely to experience poverty (Daryanani, Hamilton, Abramson & Alloy, 2016; Causey, Livingston & High, 2015), and are identified as the “poorest of all demographic groups” (Olson & Banyard, 1993), regardless of racial and ethnic differences. With respect to BSMCH, finances appear to be the most salient and easily recognized stressor, and the negative outcomes of BSMCH within lower socioeconomic status groups appear to be the target of research. BSMCH are plagued with higher rates of poverty compared to their White counterparts, with Mather (2010) noting that in 2009, of all the Black offspring being raised in low-income families, 66% were from BSMCH as compared to the 35% of offspring being raised in White single mother households. The higher rates of poverty within the BSMCH community underline the additional risk factors the household encounters, such as a lack of maternal educational attainment, limited employment and resources, and ecological threats.

Similar to the risk factor of poverty/lower SES, limited education and employment opportunities serve as additional important risk factors that contribute to lower SES, and its potentially accompanying negative outcomes for BSMCH. Research suggests that the preponderance of lower SES among BSMCs is primarily due to lower educational levels, and subsequently limited options for lucratively gainful employment to support their families. The BSMC has an increased occurrence of unemployment, job displacement, and work interruption, when compared to Caucasian and Hispanic single mothers (McLoyd, Jayaratne, Ceballo & Borquez, 1994; Johnson & Waldman, 1983). Limited access to lucrative gainful employment is likely attributable to the tendency for BSMCs to be younger, have

less education, be overrepresented in jobs that require limited skills, and to lack seniority in the workplace (McLoyd, Jayaratne, Ceballo & Borquez, 1994). When BSMC obtain employment they are likely to earn low wages preventing their ability to support their family appropriately; forcing them to compensate by working more hours, and potentially multiple positions, to make ends meet. Such an intense and busy schedule further exacerbates another important resource for the BSMC, time and availability. Such long work hours away from home, may inevitably come at the price of further compromising the home life of the family, and limiting her ability to personally and successfully engage in child care needs. For BSMCs, unemployment has the potential to be a greater risk factor for her household as compared to her White counterparts, due to BSMCs being more disadvantaged (McLoyd, Jayaratne, Ceballo & Borquez, 1994) as a result of limited education and difficulty finding skilled work.

As discussed, limited education and employment opportunities become fertile breeding ground for lower SES, which invariably is associated with limited access to additional resources that are crucial to supporting and raising healthy families. BSMCs, more than their White counterparts, endure the challenge of having limited access to additional resources such as time, social supports, owning a vehicle, and living in safe neighborhoods (Hummer & Hamilton, 2010). Such deficits further exacerbate the daily difficulties BSMCs must overcome in disadvantaged, impoverished environments with limited access to beneficial resources, which seem inevitably unattainable.

As alluded to earlier, working long hours further limits BSMCs access to one of the most significant resources, which is “time and availability” to dedicate to their families when their attentions are divided, and their focus is predominantly on being the breadwinner. BSMCs must balance role demands from multiple areas (McAdoo, 1995), and must prioritize their time and availability to fulfill the expectations from

each of their role demands (Quinn & Allen, 1989) to ensure their family's survival. This means, time is limited (Beck, 1984), and at times must be sacrificed in one role demand to tend to another. Balancing two major life roles, such as workforce survival and head of household success, can be a difficult feat for anyone. However, for the BSMC the challenge is heightened when she suffers from task overload in the context of limited social supports (Jones, 1984; Quinn & Allen, 1989; Lindblad-Goldberg, 1989) due to a necessity to succeed in the workplace for her family's survival.

Further, access to resources that can facilitate resiliency can be dependent on where the family resides. In urban areas, there is more availability of resources, such as public transportation systems, public recreational facilities, medical services and employment opportunities (Kim & Brody, 2005). There are also more threats to family safety as seen with increased rates of crime. BSMCH in rural areas may have lower threats to family safety but may also be disadvantaged by less accessibility to beneficial resources such as public transportation systems, public recreational facilities, medical services and employment opportunities, which can exacerbate the level of distress felt by the family (Kim & Brody, 2005; Murry & Brody, 1999). Therefore, the type of neighborhood BSMCH reside in, can add additional pressure to the Black single mother's circumstance, as it may negatively affect her ability to protect, and manage the behaviors of her offspring.

Support, such as extended family and invested or concerned neighbors within the neighborhood, can serve as a mitigating factor for risky neighborhoods for the Black community (Brodsky, 1999). This support is referred to as *kinship networks* (McAdoo, 1995). As such, *kinship support networks* can increase the household's resiliency, despite the risk of maternal absence from the home. Additionally, some of the perceived adverse ecological factors, such as living in risky high crime, drug infested, unstable, and violent neighborhoods (Murry & Brody, 1999), may be more of a motivating factor (Brodsky, 1999), rather than a sign of defeat, especially in

instances where the single mother is hypervigilant in preparing and equipping her offspring with strategies and resources to avert such hazards from affecting their lives, and promotion of her offspring's success. A qualitative study by Elliott, Powell and Brenton (2015) identified core values of parenting for low-income Black single mothers by completing 16 interviews. They indicated these values as sacrifice, putting their children's needs before their own, modeling self-reliance so their child would be responsible and self-reliant, and protection for their children. Other factors that were emphasized by these mothers was the importance of education for their children, and providing opportunities so their children's interests and abilities were cultivated thus improving their ability to interact appropriately in society.

This hypervigilance/attentiveness by the BSMC may showcase an underlying trait of perseverance towards a targeted goal (also known as *Grit*) in securing her offspring's future, enacting a resiliency for the BSMC and her offspring. *Grit*, is defined as an intrinsically motivated passion and perseverance that enables individuals to stay the course in a goal oriented way as they weather any storm or obstacle they encounter, and emerge successful in their mastery (Duckworth, 2007). It is described as an underlying personality trait that characterizes one's tendency to consistently and loyally work diligently towards a singular goal, even in the face of setbacks, while remaining committed to that goal (Duckworth, 2013; Meriac, Slifka, & LaBat, 2015). *Grit* is cultivated by an aggregation of successes and failures from challenges one experiences throughout one's life. Due to consistent perseverance and loyal commitment despite enduring challenges, one's development of *grit* is thought to contribute to achievement and success (Weisskirch, 2016).

Accordingly, it is plausible that *grit* may be an inherent trait that typifies the cultural identity associated with many Black women, which may serve as a buffering strength for the BSMCH. More specifically, Woods-Giscombe's (2010), speaks on the inherent strength, independence, and resilience of the Black woman, despite the

adversity she faces. Such attributes are critical to maintaining a single-minded goal targeted perseverance in the face of obstacles. Coined terminology in the literature further corroborates deeply held beliefs of the hardy, powerful, strong resilient nature of the Black woman and illustrates it as a cultural phenomenon. These include terms such as the “*Strong Black Woman*” (Romero, 2000; Abrams, Maxwell, Pope & Belgrave, 2014; Watson & Hunter, 2016), “*Superwoman Schema*” (Woods-Giscombe, 2010; Abrams, Maxwell, Pope & Belgrave, 2014), “*Sojourner Truth Syndrome*,” and the “*Sisterella Complex*” (Abrams, Maxwell, Pope & Belgrave, 2014). Each of these coined terminologies has been used to epitomize the strength and resiliency of the Black woman in the face of increase levels of distress and mental health difficulties (Shorter-Cooden, K. & Washington, N. C., 1996; Romero, 2000; Abrams, Maxwell, Pope & Belgrave, 2014; Woods-Giscombe, 2010; Watson & Hunter, 2016). Shorter-Cooden & Washington (1996) interviewed 18-22-year-old Black community college students (N=17), half of which were raised by a single mother, and found that the embodiment of strength was essential to defining their character. Accordingly, they found that characterological definitions did not just encompass one’s self-perception of “toughness,” but also perseverance and an ability to continuously cope with adversity. Shorter-Cooden & Washington (1996) also found that these Black college students readily identified other Black female role models in their lives, who were often their mothers or some other maternal relative, who they described as strong and persevering. The Black women (N=44) of Abrams, Maxwell, Pope & Belgrave’s (2014) study identified the characteristics they believed exemplified the Black woman. As with the other studies, adjectives such as *strength*, *independence*, *resiliency*, and the *ability to balance multiple roles* were generated.

Historically, Black women have been socialized to simultaneously embody strength and independence, assume multiple roles, possess an ability to independently support families, and persevere when being confronted with adversity.

These characteristics were developed as a function of necessity to ensure the survival of Black families and communities, during historical times when Black families were repeatedly separated in the loss of the male head of household figures due to slavery and discrimination, and continuously facing debilitating encounters of oppression and adversity (Abrams, Maxwell, Pope & Belgrave, 2014). Characteristics such as *strength, independence, matriarchy*, and the *ability to balance multiple roles*, have been maintained throughout history by enculturation practices within the Black community as a function of attempts to persevere and survive amidst adversity. The research of Binon (1990) and Harris (1996) support such notions that Black women culturally embrace and engender dual roles of femininity, as the consummate mother and nurturer, along with more masculine roles, as breadwinner and protector of the home, in their more androgynous gender role identity conceptualizations. More recently, Littlefield (2008) not only reported the replication of such androgynous archetypal gender roles among (N=481) Black women who made self-attributions, but also noted that among those with elevations in both the feminine and masculine gender role self-identification, there were also lower levels of self-reported stress suggestive of better psychological well-being.

Thus, the socialized beliefs that encompass being a Black woman also highlight *grittiness*, as Black women are raised to be strong, persevering in spite of adversity, and devotedly nurturing caregivers for their families (Romero, 2012). Abrams, Maxwell, Pope & Belgrave (2014) noted it best when stating that Black women are “capable of carrying the world with the grace of a lady and the grit of a warrior.” With strength and perseverance that has been engrained in the Black Woman’s character since birth, it is plausible that grit may enable BSMCs to produce offspring who are the exceptions to the rule as noted in the list of Black public personas presented earlier, who defied significant odds to emerge successful. The BSMC must possess an unwavering commitment and perseverance to ensure the

survival and success of her family, given the multitude of dangerous perils that surround her family, giving way to the BSMCH's potential resiliency.

Historically, research inferred that BSMCH lacked resources necessary to demonstrate resiliency within the family, especially in the context of exposure to depressing and impoverished environments. However, given the numerous examples of successful individuals raised within BSMCH, as previously indicated, there may in fact be protective elements that mitigate the potential risk factors believed to be associated with being raised within a BSMCH. More specifically, these protective factors may not be of an ecological or financial nature, which is typically identified as the solution to the challenges facing BSMC, but instead driven by a more underlying construct of *grit*. *Grit* may potentially be the underlying driving factor that enables BSMC to successfully raise resilient offspring who make significant contributions to society, and for some, like Shaquille O'Neal and Langston Hughes, make history, despite the insurmountable odds and challenges inherent in BSMC family structure, which limits the usual resources that come with 2-parent households.

Protective Factors Contributing to Resiliency within the Black Single Maternal Caregiver Household (BSMCH)

The resiliency literature illuminates potential answers to the question raised earlier of how a BSMC raises successful and adaptive offspring amidst the barrage of negative risk factors previously outlined with respect to poverty, lower education, and subsequent limited resources. Resiliency highlights factors that can potentially account for the BSMC's ability to successfully adapt, and persevere when confronted with untenable barriers. Resiliency can be described as a rebound after a negative experience or more. More specifically, it is "the process of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress" (American

Psychological Association, 2002). Interestingly, despite the more common notions that single mothers are riddled with deficits that may hamper their parenting and their families, Kjellstrand & Harper (2012) found that single mothers by in large tended to be fairly resilient compared to a variety of outpatient samples including (primary care, psychiatric, generalized anxiety disorder, and post-traumatic stress disorder - PTSD). Kjellstrand & Harper (2012), utilized the Connor-Davidson Resilience Scale to evaluate factors of resiliency among a general sample of single mothers (n=128; White=54%; Black=21%; Latina=17%; Asian=.8%; Multiethnic=6%) who earned \$25,000/year and above. The single mothers identified themselves as *strong, able to achieve goals, perceived themselves as trying their best*, and were *proud of their achievements*. Equally noteworthy, was the fact that single mothers in the middle SES (\$45,000-\$55,000) groups tended to be the most resilient, suggestive of an equitable and healthy work home-life balance.

APA (2002) identified key components that support resiliency in buffering against stressful factors, which include: healthy communication, a caring supportive familial and social network, positive sense of self, problem solving skills, and the ability to develop and follow realistic plans. These key components identified by the APA relate to the resiliency demonstrated by some BSMCH, which may be a function of protective factors that are embedded within the core functioning of the Black community. For example, healthy communication among family members in BSMCH, is considered vital to the survival of the family. Roberts, Lewis & Carmack (2011) indicated that children raised in Black single parent families spent significantly more time talking to their parents, than children in Black two-parent families (Astone & McLanahan, 1991). This healthy necessary communication amongst family members, and more specifically within the parent-child dyad exhibited with single maternal caregivers, likely served as a protective factor against

unhealthy behaviors, and increased resiliency in the family, and more specifically in the offspring.

All these variables may serve as potential buffers in the high-risk world of the BSMCH, and provide explanations for how such environments can cultivate successful offspring in a BSMCH. However, one of the most noteworthy protective factors may be found in the social supportive network, also known as *kinship support networks* (both fictive – friends and community agencies of support, and non-fictive-extended family relations; McAdoo, 1995).

It Takes A Village: Social Supportive Kinship networks serving as Protective Factors Contributing to Resiliency within the Black Single Mother Household (BSMH)

Social support, regardless of whether it is within the family or outside, is a valuable coping strategy for most single parent ethnic groups (Brodsky, 1999). However, within the BSMCH, social support is considered essential to survival, and embedded within the fabric of African American culture. “*It takes a village to raise a child*”, is an Igbo and Yoruba proverb stating a community raises offspring, and everyone within the community plays a role in offspring development. This proverb highlights the commitment that is upheld within the Black community today, which traces back to cultural roots in Africa, where support from extended family (defined broadly to literally include a clan/tribe/community), reinforces the stability within a family (Sudarkasa, 1997). The utilization of extended family for support in an effort to persevere despite enduring obstacles, demonstrates an engrained buffer that fosters resiliency. However, for some BSMCH, social support networks extend beyond just merely immediate extended family as we know it via Grandparents, Aunts, and Uncles. They may also include close friends, godparents, and community organizations such as church communities and community centers, and are referred to as *fictive kin*. The BSMC’s ability to utilize support systems such as extended

families (*non-fictive kinship networks*), friends and community organizations (*fictive kinship networks*), and other identified sources of support, serve as protective factors for maintaining the familial structure and support of the home when the BSMC is forced to be absent for long periods of time, such as when working outside the home as the primary breadwinner (Brodsky, 1999; Boyd-Franklin, 2003). Further, social support networks can mitigate negative outcomes for offspring of BSMCH, and in fact have positive correlations with positive outcomes for offspring such as psychological well-being, appropriate conduct and academic success (Murry & Brody, 1999; Brooks, 1994; Quinn & Allen, 1989; McAdoo, 1995).

Murry and Brody (1999) conducted a longitudinal study utilizing a population of BSMCH (n=162) with first born children ages 6-9 years old, to examine the relationship between family processes, parenting techniques, and psychosocial competence of offspring within economically stressed home environments so as to identify potential protective factors, as well as risk factors associated with the BSMCH. Although many of the offspring from Murry & Brody's study (1999) were at a greater risk for engaging in problematic behaviors, they surprisingly did not engage in such, or exhibit negative behaviors. Murray & Brody (1999) found that the offspring were protected by their BSMC who engaged community supports such as community afterschool programs, religious organizations, and community health facilities to promote healthy psychosocial adjustment for their offspring (Murry & Brody, 1999).

However, although social support networks are helpful for BSMCH, it is important to note that it does not come without challenges. Family support can sometimes also be a stressor for BSMC and her offspring, (Brodsky, 1999) rather than being beneficial. Mednick (1987) reviewed and critiqued the literature related to all single mothers, and noted that the utilization of social support could be a source of distress due to negative feelings associated with dependency on others, and the

family dynamics within the originating family. This was further corroborated by Brodsky (1999) who found that the majority of Black participants (N=10) experienced more stress with family and friend involvement due to prior conflicting relationships, and a lack of reciprocity within the relationship, and a lack of shared values. This suggests that if the social support network is perceived as harmful or counterintuitive to the BSMC's targeted goals for success for her household, the social support network could be more of a stressor, than a risk factor. Nonetheless, a common theme was noted that if relatives and fictive kin were supportive emotionally, as well as materially, their presence and proximity had a positive effect on the BSMCH's functioning, barring all other previously mentioned negative factors (Mednick, 1987; Brodsky, 1999; McAdoo, 1995). Such findings also suggested that it is not the size of the social support network, but in fact the quality of the social support network that leads to resiliency for the BSMCH.

Further, the outcome of offspring from a BSMCH may have less to do with familial structure, and more to do with the psychological climate of the household. Parratiz & Troy (2014) note for all offspring regardless of race and ethnicity, that the following are key familial protective factors that promote resiliency in offspring: warmth, family cohesion, supportive and emotionally available caregivers, and most importantly determination. *Determination*, is defined as perseverance towards targeted goals, and is reflective of the *Grit* construct, as well as described as being engrained within the fabric of the BSMC. Salem, Zimmerman, & Notaro, (1998) examined the psychosocial outcomes of offspring among several different Black family structures (*intact nuclear family, single mother family, single mother with extended members family, extended family only, and step-family*). Of the 679 Black offspring (ages 14-17) interviewed, 264 of them indicated being raised within a BSMCH. Salem et. al. (1998) found evidence to support that the household structure

did not dictate the psychosocial outcomes of the offspring (Salem, Zimmerman, & Notaro, 1998; Kleist 1999). Instead, the study revealed that the quality of the relationships within the household, and the offspring living in a supportive, positive, and structured household environment were more important factors that influenced offspring development, and was associated with less problematic behaviors, and positive psychological well-being for the offspring, including those from the BSMCH (Salem, Zimmerman, & Notaro, 1998; Kleist 1999).

Similarly, Morrison (1995) found in their interview of twelve single mothers in general, that single mothers' definition of success was depicted more in their household relationships and accomplishment. These families tended to focus on day to day familial interactions and perceptions of warmth, love and cooperation as measures of success. In addition, accomplishments were defined as the current status of the children on surviving crises. These mothers were also able to identify strengths that contributed to their perception of success such as, time management skills that allowed one to balance and reorganize routines and priorities, flexibility, adaptability, and strong networking skills, allowing for development of extensive support systems.

These findings corroborate the notion that resilient offspring are more likely to originate from home environments characterized by "warmth, affection, emotional support, and clear-cut reasonable structure and limits" (Brooks, 1994, 546; Murry & Brody, 1999), regardless of demographic factors such as ethnicity, gender, SES or family structure. And while this may be true, as discussed previously, Black women are innately nurturing and devoted caregivers committed to the functioning and survival of their families and communities (Romero, R. E., 2012). Therefore, BSMCs loyal commitment towards the targeted goal of the household's perseverance and success despite obstacles, and remaining resilient, coupled with their innate nature to create a home environment that is tender, loving, and supportive, showcases the

characteristics of *grit*, and components of a household environment that cultivates resiliency for the offspring. The warmth, affection, emotional support, and clear-cut reasonable structure and limits (Murry & Brody, 1999) of the household environment that are beneficial to resiliency in offspring, further illuminate the intrinsic person centered variables within the BSMC that foster resiliency for the BSMCH, and potentially protect the offspring from the negative outcomes projected, given the array of negative risk factors. Consistent with the pre-determinants of clear-cut reasonable structure and limits for the promotion of familial and offspring resiliency, the “no nonsense parenting,” which is prevalent among Black single maternal caregiver homes has been associated with more youth independence and assertiveness, and increased cognitive and social competence in low income Black youth (Anton, Jones & Youngstrom, 2015). Such ideal *authoritative parenting* (Baumrind, 1967, 1971, 1991), which is the harmonious blend of structure with warmth and nurturance, are likely contributors to the resiliency of offspring during childhood, as well as later adulthood.

The Faith of a Mustard Seed: The Black Single Mother’s Positive Attitude Toward Single Parenthood

One might describe the BSMC’s positive parental attitudes toward being a single parent, as a protective factor that can potentially mitigate the risks associated with being raised within a BSMCH. Brodsky (1999) conducted a qualitative study to identify the components and process of resiliency within the BSMCH. Brodsky (1999) interviewed ten BSMCs who despite living in impoverished communities appeared to demonstrate resiliency in their ability to effectively balance stressors and resources. That resiliency was demonstrated in the following domains: parenting responsibilities, finances, familial and friend obligations, intimate relationships, personal characteristics and activities, and spirituality. Additionally, the ability to set

and strive for new goals, and reframe stressors to illicit motivation, were perceived as components of resiliency. It is noteworthy that Brodsky (1999) and the participants of the study deemed it more appropriate to refer to resiliency as “*making it*,” referring to one’s ability to achieve or approach success out of unlikely or risky circumstances, while participating in an ongoing process of accomplishing goals along the way (Brodsky, 1999). As such, one might describe Brodsky’s (1999) use of the term, “*making it*,” not only as a descriptive term for single mother resiliency, but more specifically demonstrative of displays of *grit*, which allowed these mothers to “make it.”

Brodsky (1999) also found a responsibility and joy associated with being a parent that resulted in an optimism and motivation for the BSMC to strive for more, and persevere. Additionally, Brodsky (1999) found successful BSMCs reported enhanced coping abilities through an awareness and appreciation of the positive elements in their lives. It was noted that the BSMC’s positive attitude and optimism further strengthened the success of her offspring by teaching behaviors and values needed to survive. Some of those values included distinguishing “*wants*” versus “*needs*,” fostering independence, valuing education, striving for goals, appreciating what one has, and caring and respecting immediate family members (Brodsky, 1999). Most noteworthy, was the corollary joy that seemed to accompany BSMCs apparent *grit*. Although, the research regarding *grit*, is in its early stages, happiness, positive affect, and life satisfaction appear to correlate positively with the *grit* construct (Singh & Duggal Jha, 2008). It is even suggested that the joy and satisfaction that the BSMC experiences from motherhood may further perpetuate her grittiness, allowing her to remain steadfast and persevering in her targeted goals for rearing successful offspring.

Relatedly, Taylor, Larsen-Rife, Conger, Widmann & Cutrona (2010) describe the construct of *dispositional optimism*, which is an individual’s general

attitude towards expecting positive outcomes despite experiencing challenges, as contributing factor related to resiliency within the BSMCH. Taylor, Larsen-Rife, Conger, Widaman & Cutrona, 2010 have suggested that individuals with *dispositional optimism* are more likely to persevere when faced with adversity, effectively adapt to stressors, and demonstrate self-efficacy. Further, parental *dispositional optimism* has been noted to predict higher offspring competencies and psychological adjustment, as well as help to maintain positive functioning within the family during times of distress (Kim & Brody, 2005; Taylor, Rodriguez, Seaton, & Dominguez, 2004; Brody, & Flor, 1997). In a longitudinal study of 394 BSMCH, Taylor, Larsen-Rife, Conger, Widaman & Cutrona (2010) examined the current economic pressures, *dispositional optimism*, parenting practices, child management, and offspring's academic competence, and found that *dispositional optimism* served as a psychological resource for BSMCs, and reduced the negative effects of economic pressures such as unmet material needs, an inability to fulfill financial obligations, financial cutbacks, and not having any money at all. Their findings also suggested that BSMCs who were more optimistic, showed greater resilience despite facing internalizing symptoms of depression and anxiety, and economic pressures. Such findings corroborated the earlier discussed work of Murry & Brody's (1999), which revealed that parental satisfaction with one's parenting role mitigated the negative effects of economic stressors, lack of resources, and ecological threats, on the offspring.

These findings related to the BSMC's modeling of a positive attitude in the face of adversity, may subsequently transfer to her offspring, and is potentially suggestive of a transgenerational transmission process that may extend to the construct of *grit* as well. Whereby, the underlying intrinsic person centered trait of the BSMC, speculated to be *grit*, which embodies the enculturation of the Black woman to be: a strong, resilient, and self-sufficient breadwinner and matriarch, who

perseveres despite limited resources, gets modeled, and internalized by her offspring, fostering future positive successful outcomes. Such speculated internalization of modeled *grit* by BSMC, which transfers to her offspring may best be explained by social learning theory.

Social Learning Theory as an Explanation for the Transgenerational Transmission of Grit to the Offspring of Black Single Maternal Caregivers

Bandura (1969) is most well-known for his social learning theory that postulates that humans, as social beings, inherently learn via socially laden experiences and interactions that serve as the most powerful contingencies for behaviors. More specifically, his social learning principle of *observational learning* postulates that humans, can acquire knowledge simply through the mere observation of others in their interactions with their environment. One must be attentive to occurrences, encode and store informative observations, and retrieve information in order to reproduce the targeted behavior later (Siegler, DeLoache, Eisenberg, Saffran & Leaper, 2014). Accordingly, this life long process of observational learning commences from birth, and has been used to explain how a 7-day old infant can imitate simple facial expressions, a 9-month-old can imitate human behavioral actions, a two-year-old can acquire important personal and social skills, and internalize parental values and standards to be used as a guide for evaluating one's own conduct (Siegler, DeLoache, Eisenberg, Saffran & Leaper, 2014). As a result of the observational learning process, offspring begin to learn adult competencies, such as the basics of driving a car, before they actually need to engage in such tasks, and are able to learn desirable and undesirable behaviors (Siegler, DeLoache, Eisenberg, Saffran & Leaper, 2014).

Literature supports the theoretical conceptualization of observational learning serving as a mechanism to shape offspring's behaviors and attitudes, which

can be demonstrated by indirect and direct parental modeling. Wang & Sheikh-Khalil (2014) conducted a longitudinal study with three waves of data collection (N=1056, 15-17 years old; 53% European American, 40% African American, and 7% Other) to determine the impact of parental influence on offspring's academic and psychological development. Findings suggested that academic parental involvement improved academic and emotional functioning of the offspring and predicted the offspring's academic success and mental health through behavioral and emotional engagement. Further, the parent's communication with the offspring concerning academic goals, values and aspirations (identified as indirect modeling) had the strongest positive relation with offspring achievement, and the strongest negative relation with offspring depression, meaning that the offspring demonstrated more academic engagement which led to higher achievement. Notably, Wang & Sheikh-Khalil (2014) also examined the impact of racial differences and found that the African American parents demonstrated more behaviors related to academically enriching activities that occurred after school, than activities that included volunteering at the school and attending school events. However, the parental involvement of the African American parents still demonstrated a significant impact on the offspring's academic success and mental health.

Connell, Spencer & Aber (2008) provided further evidence to support the impact that parental modeling of behaviors and attitudes have on offspring learning and developmental of skills. Connell, Spencer & Aber (2008) conducted a study with 10-16 year old, African-Americans from 3 major metropolitan areas (Atlanta, New York, and the District of Columbia, Maryland, Virginia (DMV) area). The participants from each major metropolitan area (N=215; 399; 114 respectively) provided information regarding their family's economic risk, the offspring's potential educational outcomes (positive vs. negative), parental involvement, offspring's perception of competency, and the offspring's academic engagement.

Findings suggested that the offspring's perception of family support, as measured by the parent's involvement, helped to regulate the impact of low SES and gender on the offspring's engagement in school, further corroborating that parental involvement is important for directly and indirectly modeling behaviors that contribute to offspring success.

Evidence supports that parental modeling has great influence on shaping the behaviors and attitudes of offspring. However, research also alludes to the notion that maternal behaviors and beliefs have greater influence on the behaviors of offspring than paternal behaviors and beliefs. Bois, Sarrazin, Brustad, Trouilloud & Cury (2005) conducted a longitudinal study with French children (N=152; ages 9-11 years old). The purpose of the study was to determine the degree that parental behaviors and beliefs about physical activity influence children's perception and time spent engaging in physical activity. Findings suggested that parent's modeling behavior and beliefs about their child's competency influenced their child's involvement in physical activity. However, the maternal caregiver's modeling behavior of physical activity had a direct effect on the amount of time the child spent engaging in physical activity, while paternal modeling behaviors did not. Further, the maternal caregiver's beliefs about her child's level of competency influenced her child's perceived competence, which demonstrated an indirect effect on the child's level of physical activity involvement. Bois, Sarrazin, Brustad, Trouilloud & Cury (2005) findings suggest that maternal modeling behavior and beliefs are more salient for children ages 9-11 years old emphasizing the importance of maternal influence on offspring's learning and development of skills.

Similarly, Cunningham (2001) conducted a longitudinal study with children and mothers (N=935) to assess maternal influence on young adults' attitudes towards gender familial roles, housework allocation and housework employment. Findings indicated that the behaviors modeled within the family led the offspring to express

similar attitudes and behaviors during young adulthood that were demonstrated within their family, providing further evidence to support the influence of parental modeling on offspring. However, Cunningham (2010) also found that maternal attitudes and behaviors about gender roles and division of labor during the early childhood development of her offspring's had a large effect on young adult offspring's attitudes and behaviors, meaning that her offspring demonstrated congruent behaviors and attitudes about gender roles and division of labor, that were modeled and expressed during the offspring's development. Notably, there were no offspring gender differences, suggesting that parental influence was similar for the male and female offspring within this study.

Although, there is not any literature examining transgenerational modeling of *grit*, one can extrapolate from the empirical literature supporting observational learning as a mechanism to shape offspring's behaviors and attitudes. Much like academic and psychological functioning, physical activity, and gender role attitudes and the delineation of household labor, *grit* is a behavior that can be learned through parental modeling.

The theory of observational learning elucidates how *grit* may develop within the BSMC's offspring as a consequence of social learning. Just like a 7-day old infant can imitate simple facial expressions, a 9-month-old can imitate human behavioral actions, and a two-year-old can acquire important personal and social skills, and internalize parental values and standards to use as a guide to evaluate their own conduct, the offspring of BSMC can observe their mother's demonstrated *grit* behaviors fostering resiliency in the overcoming of obstacles in her preserving toward targeted goals for her family and offspring. Such observational learning from the BSMC's modeled *grit* behaviors are subsequently encoded and stored for later use by the BSMC's offspring to foster future success stories.

There are a multitude of real-life examples of offspring raised in BSMCH who have demonstrated resiliency in the face of challenges, with the earlier list of well-known public figures serving as examples. These individuals illuminate the possibility of positive outcomes, with regards to academic achievement, and psychological well-being. Further, these same public offspring likely demonstrated the same *grit* characteristics of perseverance and commitment to achieving a targeted goal, in their young adult lives, as might have been modeled by their BSMC, during childhood. For example, Octavia Spencer, a Golden Globe and Academy Award winning actress, and her six siblings were raised in a BSMCH. In an interview by Jess Cagle (Petite, 2016), Octavia Spencer noted her mother working as a maid, along with multiple odd jobs, to support she and her siblings. She also indicated that through witnessing her mother's hard work and diligence to do what was necessary to provide for the family (*grit*), she taught Octavia Spencer to be practical, grounded, and hardworking, which are characteristics she continues to emulate despite her mother's passing when she was 18-years-old. Similarly, Shaquille O'Neal noted his mother demonstrating passion for education despite having to defer educational attainment until the age of 40, due to caring for the family and issues with alcohol dependency. He indicated that her steadfast encouragement towards obtaining an education and her achievement of higher education in 2005, as the cause for him returning to college after being drafted by the NBA, and continuing his education receiving a Master's and Doctorate degrees (Parsons, 2014; Associated Press, 2010). Octavia Spencer and Shaquille O'Neal's examples of witnessing their BSMC's perseverance and commitment towards achieving a targeted goal of caring for the family and educational attainment, suggest that the offspring's observation of the BSMC's modeled *grit* may have ameliorated the potential negative outcomes of poor academic achievement and psychological distress, commonly associated with the host negative risk factors plaguing single parent households such as, low SES,

limited resources, and lack of maternal employment and education. Instead, the BSMC's potentially modeled *grit* may have served as a mechanism for strengthening the resiliency of the BSMCH. More specifically, such modeled *grit* on the part of their BSMC may promote more positive successful performance outcomes in the offspring's future lives, as is commonly associated with high *grit* scorers in general.

Grit and Positive Successful Outcomes

In general, *grit*, has been associated with a number of positive success outcomes. Among individuals of similar ability, Duckworth, Peterson, Matthews & Kelly, (2007) conducted several studies related to the function of *grit* and found *grit* to be one of the most distinguishing predictive factors for better academic performance outcomes with respect to academic attainment, higher GPA's at elite universities, and greater career stability and retention. Eskreis-Winkler, Shulman, Beal & Duckworth (2014) examined the predictive ability of *grit* for graduation from Chicago Public Schools. Participants (N=4813; 58% male, 45% Hispanic and 43% Black) completed the GRIT measure their junior year and provided information related to demographics, standard achievement test scores, perception of support from peers and parents, and perception of school safety. Findings indicated that the students with *grit* scores at least one standard deviation higher than the mean had 21% higher odds of graduating on time. Additionally, *grit* was strongly correlated with academic conscientiousness ($r=.49$) and school motivation ($r=.49$), and when demographics, standard achievement test scores, perception of support from peers and parents, and perception of school safety were controlled, *grit* continued to be a significant predictor for graduation (OR=1.21). In addition, Duckworth et al. (2007) investigated the relationship between *grit* and educational attainment. Participants (N=1545; ages 25 and older) provided information about their obtained level of education (some high school, high school graduate, some college, Associate's

degree, Bachelor's degree, or post-college graduate degree). When age was controlled, it was found that the higher educated adults were *grittier* than the less educated, same-aged peers. Further, in a second study by Duckworth et al (2007), the predictive value of *grit* on academic performance amongst high achieving undergraduate students at an elite university (N=139) was examined. The researchers examined the relationship between cumulative GPAs, SAT scores and *grit* and found high *grit* scores to be associated with higher GPAs ($r=.25$, $p<.01$), suggesting that those with high *grit* outperformed their less *grittier* peers. Notably, Duckworth et al (2007) also found that high *grit* was associated with lower SAT scores ($r=-.20$, $p<.01$), suggesting that those who were "less bright" compensated by working harder, with more determination.

Additionally, a third study by Duckworth et al. (2007) found that within a sample of 706 participants, ages 25 years old and older, those with a *grit* score at least a standard deviation higher than the mean were 35% less likely to make frequent career changes, suggesting that *grittier* individuals are more likely to maintain career stability. Further, Eskreis-Winkler, Shulman, Beal & Duckworth (2014) found that participants (N=442) with one standard deviation higher in *grit* had 40% higher odds of workplace retention. Therefore, *grittier* employees were more likely to remain employed long-term. Robertson-Kraft & Duckworth (2014) conducted two studies to examine the predictive quality of *grit* for the effectiveness and retention of teachers with 1-2 years experience. Unlike other studies who used the GRIT measure to measure *grit*, these studies coded the participant's resumes for examples of *grit*. In the first study, teachers (N=154) who were retained for the school year had higher *grit* ratings ($M=3.98$, $SD=1.45$), and when examples of leadership were controlled, *grittier* teachers with at least one standard deviation higher in *grit*, were more than two times more likely to be retained than their less *gritty* peers ($OR=2.34$, $p<.001$). Also, effective teachers earned higher *grit* scores ($M=4.16$, $SD=1.43$) than the less

effective teachers, and when examples of leadership were controlled, the teachers who scored one standard deviation higher in *grit*, were 60% more likely to outperform their less *gritty* peers ($B=.47$, $OR=1.60$, $p<.05$). Similarly, in the second study, teachers ($N=307$) who were labeled as effective had higher *grit* scores ($M=3.88$, $SD=1.56$) than the less effective teachers ($M=3.20$, $SD=1.48$). When examples of leadership were controlled in this study, those who scored one standard deviation higher in *grit* were 64% more likely to outperform their less *gritty* peers. Thereby, both studies provided evidence to support that the teachers who demonstrated high levels of *grit* maintained their teaching placement and made more academic progress with their students.

Other examples of better specialty performance outcomes as a function of *grit*, although not limited to Blacks, include successful summer training among West Point attendees and Army Special Operations Forces (ARSOF), and higher rounds of advancement among participants in the Scripps National Spelling Bee (Duckworth et al. 2007). A fourth study by Duckworth et al. (2007), utilizing freshman cadets ($N=1,218$) entering United States Military Academy Preparatory School, found that the cadets whose scores of *grit* were at least one standard deviation higher than the mean, were more than 60% more likely to complete the summer training. Whereas with self-control, cadets were only 50% more likely to complete summer training, suggesting that *grit* was more predictive than self-control. Similarly, Duckworth & Quinn (2009) found that cadets ($N=1,248$) with a *grit* score one standard deviation higher than the average mean, were 99% more likely to complete summer training. Both studies corroborated the notion that *grit* demonstrates predictive quality towards the completion of the cadet summer program. Further, Eskreis-Winkler, Shulman, Beal & Duckworth (2014) examined the extent to which *grit* predicted the completion of ARSOF by comparing *grit* to general intelligence, and physical fitness (known predictors of ARSOF completion). The participants ($N=677$; all males) who

scored at least one standard deviation or higher in *grit* demonstrated a 32% higher chance of completing the rigorous selection course. Therefore, the *grittier* participants were less likely to drop out of the course prematurely, and when general intelligence, physical fitness, age and years of schooling were controlled, *grit* still demonstrated a significant effect.

Additionally, a fifth study by Duckworth et al. (2007), investigated the predictive value of *grit* within the Scripps National Spelling Bee. Finalists (N=175) of the 2005 Scripps National Spelling Bee, ages 7-15 years old, provided information concerning previous competitions, study habits, and completed the *Similarities* subtest of the Wechsler Intelligence Scale for Children, Third Edition (WISC-III) to obtain a verbal IQ score. Duckworth et al. (2007) found that participants with *grittier* scores of at least one standard deviation above the mean of same-aged individuals, were 41% more likely to advance, suggesting that *grit* predicted advancement to higher rounds in the competition. Similarly, Duckworth & Quinn (2009) and Duckworth, Kirby, Tsukayama, Berstein & Ericsson (2011) examined the predictive value of *grit* with the 2006 finalists of the Scripps National Spelling Bee (N=190, ages 10-15 years old). Findings indicated that the finalists who scored one standard deviation higher than same aged peers were 38% more likely to advance to higher rounds of the competition, and accrued more hours of deliberate practice time. The findings suggested that the *grittier* participants engaged in more deliberate practice than their less *gritty* counterparts and that deliberate practice mediated the association between *grit* and spelling performance.

In addition, one's degree of perseverance was shown to be positively associated with academic adjustment, sense of belonging, and college satisfaction among undergraduate students (Weisskirch, 2016), all of which contributed to psychological well-being. As such, the *grit* construct, has been used as a predictor of psychological well-being, with "*grittier*" individuals demonstrating better traits of

psychological health (Meriac, Slifka, & LaBat, 2015) as seen in positive affect, and more commitment to one's life purpose (Hill, Burrow & Bronk, 2016). Also, contributing to literature examining the relationship between grit and psychological well-being, Culin, Tsukayama & Duckworth (2014) conducted two studies to determine the relationship between happiness and *grit*. In one study, the participants (N=15874) who pursued happiness through engagement (attention absorbing activities) and meaning (activities that serve an altruistic purpose) were *grittier* (B=.34, $p<.001$; B=.15, $p<.001$). However, those who pursued happiness through pleasure (activities with immediate hedonically positive attributes) were less *gritty* (B=-.10, $p<.001$). Similarly, in the second study, the participants (N=317) who sought happiness through engagement in life and meaning were *grittier* (B=.32, $p<.001$; B=.19, $P<.001$) and those seeking happiness through pleasure were less *gritty* (B=-.24, $p<.001$). Therefore, both studies suggest that *grittier* individuals are more likely to seek happiness through engagement and meaning, rather than pleasure.

The literature provides multiple examples that support *grit's* association with positive outcomes for a wide range of ages and multiple avenues of life experiences. High levels of *grit* have been shown to be related to academic attainment and adjustment, higher GPA's at elite universities, greater career stability and retention, successful completion of training at West Point and Army Special Operations Forces (ARSOF), higher rounds of advancement among participants in the Scripps National Spelling Bee, sense of belonging, college satisfaction among undergraduate students, and happiness. Thereby, it stands to reason that high levels of *grit* could also contribute to positive outcomes, especially as it relates to educational achievement and psychological well-being, for offspring of BSMCs.

Outcomes of Single Mother Household Offspring and Potential Indicators of Grit

With respect to single parent households, historically, the research literature has supported the notion that the offspring are more vulnerable to negative outcomes. Amato & Keith (1991), completed a meta-analysis of 92 studies from the 1950s-1980s, about single parent families in general, and found that offspring scored significantly lower for indicators of well-being, which included academic achievement, conduct, psychological adjustment, self-concept, and quality relationships with others. These findings were further corroborated in 1990 (Amato, 2001). However, much of the literature goes further to support a heightened vulnerability for negative outcomes when one is raised in a BSMCH (Amato, 2001; Murry & Brody, 1999; McLoyd, Jayaratne, Ceballo & Borquez, 1994; Murry, Bynum, Brody, Willert, & Stephens, 2001; Barber & Eccles, 1992; Goodrum, Jones, Kincaid, & Cuellar, 2012, Anton, Jones, Youngstrom, 2015; Lindblad-Goldberg, 1989; Bynum & Durm, 1996; Mandura & Murray, 2000). Research has attributed negative outcomes such as psychological distress, and discrepant academic achievement and performance, to family structure among offspring reared in BSMCH (Parker & Kleiner, 1966; Barber & Eccles, 1992). Nonetheless, as mentioned previously, there are offspring raised in a BSMCH who defy the odds and surpass societal expectations by being *gritty*. This *grittiness* is highlighted by examples of accomplishing targeted goals such as academic achievements, and demonstrating characteristics of psychological well-being despite enduring distressing circumstances.

Offspring Outcomes: Academic Achievement

Expected negative academic outcomes for offspring of BSMCH, given the risk factors illuminated earlier, have been indicated in the research as depicted by lower rates of academic performance and achievement (Barber & Eccles, 1992;

Lindblad-Goldberg, 1989; Amato, Patterson & Beattie, 2015). Overall, statistics show that Blacks in general demonstrate lower academic achievement and performance, than their White counterparts. In 2013, the dropout rate for Blacks ages 16-24 years old was 7% and 5% for Whites, and the completion rate for Blacks was 92% and 94% for Whites (Musu-Gillette, Robinson, McFarland, KewalRamani, Zhang, & Wilkinson Flicker, 2016). Although, the statistics appear similar, it is important to note that Whites comprise a higher percentage of the population, highlighting the degree that Blacks in general, demonstrate lower levels of academic achievement and attainment. Further, college enrollment for Blacks ages 18-24 years old was 34% and 42% for Whites, and the graduation rates, regardless of the duration of matriculation were lowest for Blacks (Musu-Gillette, Robinson, McFarland, KewalRamani, Zhang, & Wilkinson Flicker, 2016). Nonetheless, 19% of Blacks ages 25 years old and older earned at least a Bachelor's degree, while 33% of Whites earned at least a Bachelor's degree (Musu-Gillette, Robinson, McFarland, KewalRamani, Zhang, & Wilkinson Flicker, 2016). Further, Blacks had the highest percentage of unemployment or lack of enrollment in school in 2014 (29%; Whites=16%) (Musu-Gillette, Robinson, McFarland, KewalRamani, Zhang, & Wilkinson Flicker, 2016).

Similarly, literature has alluded to the same discrepant academic achievement and performance for Black offspring from BSMC, whereas Whites outperform their Black counterparts. Ricciuti (2004) examined the adverse effects of single parenthood as it relates to achievement and problem behavior. Participants included Blacks, Hispanics, and Whites (ages 12-13 years old) of different family structures, however 40% of the Black participants (N=604) were being raised in a BSMCH. Ricciuti (2004) found that the participants raised in a BSMCH demonstrated deficits in their vocabulary and reading comprehension, which were negatively influenced by the amount of years living in a BSMCH.

Further, Bankston & Caldas (1998) conducted a study involving White and Black students in the 10th grade (N=18310) to examine the influence of family structure, race and SES on academic achievement utilizing the Louisiana Graduation Exit Examination (which all public school students must pass to graduate). It is important to note that although the sample included both White and Black students, Bankston & Caldas indicated that the sample was predominately Black and the majority of the offspring from single mother households were Black. However, specific statistics regarding the demographics were not provided. Bankston & Caldas (1998) found that 71% of the Black students scored below median scores on the Louisiana Graduation Exit Examination compared to 34% of the White students. This suggested that the Black students academic achievement was significantly lower than the White students. Further, findings indicated that identification of being raised in a single mother household (which was comprised of mostly Black students) demonstrated a negative relationship with school achievement, suggesting that the family structure of single motherhood contributed to a lack of school achievement.

However, there is not a consensus regarding whether family structure, such as being from a single parent household, alone, is a significant factor related to academic achievement, the literature postulates there are other factors strongly correlated with the BSMCH that contribute to deficits in academic performance and achievement for offspring of BSMCH. Research has strongly supported that offspring from BSMC homes demonstrate lower levels of academic performance and achievement, due to low income (Ford, Wright, Grantham, & Haris III, 1998; Hofferth, Smith, McLoyd, & Finkelstein, 2000) parental unavailability, and low levels of maternal education (Ford, Wright, Grantham, & Haris III, 1998). Additionally, research cites lower value and expectations for academic attainment within the BSMCH as being attributable to poor academic performance and achievement for offspring (Hofferth, Smith, McLoyd, & Finkelstein, 2000; Ricciuti,

2004). According to Hofferth, Smith, McLoyd, & Finkelstein (2000). Offspring from low income families, regardless of ethnicity, gender, or family circumstance, tended to perform worse than those from higher income families in academic achievement, which was likely attributable to less resources to invest in books, and educational activities, thereby contributing to the offspring's impaired cognitive skills. Risk factors, such as low income, lowered parental educational attainment, and limited resources, which are associated with offspring's cognitive skill development, are very much a reality for BSMCH. As discussed previously, BSMCH tend to have higher rates of poverty, lower educational levels, and limited options for lucratively paying jobs that can support a family. This means that when BSMCs obtain employment, they are likely to earn low wages preventing them from appropriately providing for their families, and forcing them to work more and long hours. Not only does the work schedule of the BSMC in the home make it difficult to afford the resources that may be necessary to help the offspring excel academically, but the BSMC also has limited time available to monitor offspring activities, supervise homework, and develop relationships with teachers and other parents (Murry, Bynum, Brody, Willert, & Stephens, 2001; Wu, Schimmele & Hou, 2015; Ricciuti, 2004), all of which, if made available, could buffer the effects of having limited access to academic resources.

Nonetheless, despite the literature's support of lower levels of academic achievement with offspring of BSMC, there are a select few offspring that do well academically, which illuminates that there may be another factor that plays a role in the academic resiliency that offspring from BSMCH's sometimes exhibit. This academic resiliency is likely associated with *grit*, as some BSMCH offspring who excel academically, demonstrate perseverance towards academic achievement as a target goal, which has been potentially modeled in the values demonstrated by their BSMC. Those values, as previously discussed for some BSMC, consist of an

orientation toward the betterment of her children, which becomes motivation for targeted goals for her offspring's successful outcomes. If so, these values would fly in the face of other research, which highlights that educational attainment is not valued within the BSMCH.

As such, current research opposes the findings regarding the BSMCH's lowered value for educational attainment. In fact, Ford, Wright, Grantham, & Haris III (1998) when examining the impact of *household achievement orientations*, which were the parent's beliefs about the value of schooling, as a protective factor for the impact of being raised within a single parent household, on Black student achievement, found no evidence to support the notion that Black Single mothers responded any differently than their two-parent and single-parent White household counterparts. Ford et. al. (1998) examined academically diverse, Black middle and high school students' attitude towards school, perception of learning environment, and the perceptions of parents' achievement ideologies, and in fact found that the offspring from both two-parent and single-parent homes shared similar positive beliefs and values regarding academic achievement, and both populations of offspring perceived their household to have strong achievement orientations. Ford et. al. (1998) also did not find any significant differences in the academic achievement among the offspring of single- and two-parent families, which included Black offspring from BSMCH.

In addition, Ford (1993) found that offspring, regardless of familial structure, who perceived their parent(s) as adamant regarding the importance of education, developed an optimistic and achievement-based orientation towards education, so that growing up in a single parent household was not associated with reduced educational aspirations for Black adolescents at all. Shorter-Cooden & Washington (1996) provides further evidence noting that 50% of the total Black women of their study (N=17) attending a community college, indicated being raised by a BSMCH who

was the underlying force for their motivation to accomplish their targeted goal of academic success. Mandara, Varner & Richman (2010) conducted a longitudinal study (1992-2006) to examine the socialization experiences of Black male and female offspring (N=1500, ages 10-14 at the start of study), and to the extent to which it is influenced by the parenting style of the maternal caregiver. Findings suggested that female offspring demonstrated higher academic performance, obtaining higher test scores over time. Further, these findings allude to the notion that the BSMC's achievement orientation, may be rooted within the participant's subconscious, even in the physical absence of the BSMCs, such that she continues to be committed to successful academic achievement. These findings not only illuminate the BSMCH's emphasis on academic achievement orientations for their offspring, but that such persevering motivations and aspirations, contribute to educational success as a targeted goal for offspring. These findings further support the notion that the potential *grit* demonstrated and highlighted by the BSMC, coupled with positive academic achievement orientations, contributed to the resiliency demonstrated by some BSMCH offspring, in contrast to the historically cornucopias amounts of research painting a picture of academic impairment. Accordingly, among Black college students in a majority White college, *grit* was associated with both higher high school and college GPA's, and higher scores on the ACT (Weisskirch, 2016).

Although there is evidence to support that achievement ideologies from BSMCH do not differ from intact households, and therefore the achievement orientations of BSMCH offspring do not differ either, there appear to be inconsistencies regarding the degree that academic achievement is emphasized for male and female offspring by the BSMC. In general, for individuals ages 25-29, regardless of race, educational attainment rates are higher for females than males.

However, as cited in Strayhorn (2013), “Black women outnumber their same-race male counterparts by more than 2 to 1 and even when Black men enroll in college, they are more likely to begin at 2-year community colleges (e.g., Flowers [2006](#); Hagedorn et al. [2007](#)), earn lower grades (Bonner and Bailey [2006](#)), devote less time to campus activities and studying (Flowers [2007](#); Harper et al. 2004), take longer to complete their degrees, or drop out altogether (National Urban League [2007](#)). Additionally, two thirds of all Black men who enter higher education leave before completing their degree, which is the highest attrition rate among all races and both sexes (1)”.

Similar gender differences appear to be present within the BSMCH population, whereas female offspring outperform the male offspring. Offspring gender differences from BSMCH, highlights that female offspring tend to demonstrate higher academic success when compared to male counterparts, suggesting that academic achievement may be encouraged more for female offspring than male offspring. Mandara, Varner, & Rickman (2010) utilized archival data of economically diverse unmarried BSMC families to examine socialization practices for their children, as it relates to achievement and conduct. Mandara et. al. (2010) found that BSMCs of female offspring had higher educational expectations than they did for their sons, and the female offspring earned the highest test scores compared to their male offspring counterparts, regardless of their birth order in the family. The study also suggested that the youngest boys within a single mother household were the most at risk for academic and behavioral problems due to different socialization practices by the mother, and a tendency towards investing in the futures of their first born and/or female offspring within the household.

These gender differences related to academic achievement among offspring of BSMCH might best be explained by gender socialization practices within the Black community. In general, research shows that Black offspring are raised to be

self-sufficient and competent (Peters, 2007). However, literature highlights that in general, Black women are raised to work steadfast towards a targeted goal of establishing a career for security, and tend to be given priority within the family for attending college (Hill, 2002). Black women, but especially BSMCs, demonstrate an inclination towards socializing their daughters to embrace independence, strength and resilience (Abrams, Maxwell, Pope & Belgrave, 2014; Johnson, 2016), which includes having higher educational expectations for their female offspring, and investing more time and effort to ensure that the targeted goal of higher academic achievement is achieved (Mandara, Varner & Richman, 2010).

For the male offspring of BSMCH, academic achievement is also encouraged within the home, however, other factors may contribute to their lowered academic performance. For example, within the Black community there are culturally sanctioned gender role differentiations for the Black male that may foster prioritizing other domains above academic achievement. At a young age, freedom and “*being tough*” in order to protect oneself from injustices are emphasized for Black male offspring (Mandara, Varner & Richman, 2010; Hrabowski, Maton, Greif, 1998; Noguera, 2003). In addition, they are raised to be “*Men of the house,*” especially within BSMCH (Roy, Messina, Smith & Waters, 2014). Such prioritizing of values in which being able to financially help provide for the home, may supersede striving for academic excellence and goals. Consistent with the cultural mores previously elucidated that typify the socialization/enculturation process of expectancies, Black male offspring encounter several obstacles when they enter school. They include the possibility of being ridiculed or labeled as a “*sell out*” for being academically gifted (Hrabowski, Maton, Greif, 1998; Noguera, 2003). Moreover, Johnson and Migliaccio, (2009) allude to the culturally sanctioned emphasis for achievement in athletics for Black males, relative to their Black female counterparts, who have multiple avenues for achievement in both the academic and sports realm. Black

males, especially from impoverished communities, are socialized by family members, their community, and the media, to view athletics as one of the few viable options for social mobility, and the subsequent success of their families and themselves (Johnson & Migliaccio, 2009). Limited socialization practices for Black males with regards to academics in conjunction with pressure to be “*the men of the house,*” and barriers encountered at school, likely limit the possibility of academic achievement for Black male offspring. So, while Black male offspring may possess high *grit* traits as modelled by their BSMCs, it may not necessarily demonstrate itself within the realm of academic achievement, given other domains for which there are social pressures by the Black community for proficiency. Thus, it is conceivable that *grit* may be reflected in other prioritized domains such as athletics, protection of the family, and provision of quick immediate financial resources. Thus, these factors serve as additional barriers limiting the possibility of academic achievement for Black male offspring. Accordingly, consistent with the notion of the transgenerational transmission of *grit* to the BSMC’s offspring, there is evidence that supports the notion that when academic achievement is indeed fostered in Black male offspring, *grit* serves as the single most significant predictor of academic success. Strayhorn (2013) examined the influence of *grit* on academic achievement for Black male students enrolled at a predominantly white institution (N=140), and found that *grit* was positively correlated with positive academic outcomes. That is, grittier Black male college students earned higher grades compared to their less *grittier* Black male peers with similar high school GPAs, ACT scores and educational aspirations. Strayhorn (2013) also found that background and academic factors, and *grit* accounted for 24% of the variance in grades for these Black male students. Such findings support the notion that the postulated transgenerational transmission of *grit* is not something that is simply regulated to the BSMC female offspring, eludes the

male offspring. But instead, BSMC modeled *grit* is conceivably transmitted to both the female and male offspring, but potentially used toward different targeted goals associated with the cultural prescribed roles for each gender offspring.

Therefore, it would appear that there is a cultural intersection with offspring's gender and race that moderates the relationship between *grit* and academic achievement among BSMCH's offspring. Therefore, Bandura's observational modeling, as well as gender role and racial socialization of Black offspring seem to better illuminate this complex relationship between gender, *grit*, and academic success for offspring of BSMCH.

Offspring Outcomes: Psychological Distress & Well-Being

Similar to academic achievement, *grit* is associated with offspring's psychological well-being, such that some BSMCH offspring may demonstrate characteristics of psychological well-being, despite experiencing adversity that is predicted to contribute to their failure. Research about the offspring of BSMCs have emphasized the psychological distress that occurs because of the influence of family structure. As noted in Anton, Jones, Youngstrom (2015), offspring from BSMCH are believed to experience more difficulties with mental health, than their White counterparts. Daryanani, Hamilton, McArthur, Steinberg, Abramson & Alloy (2017) conducted a longitudinal study to examine the impact of single motherhood on adolescent offspring's development of depressive symptoms, rumination and a negative inferential style. The single-mother-youth (ages 12-13 years old) dyads (N=154; 67% Black and low SES) completed baseline, one-, and two-year follow-up assessments. Findings indicated that the offspring from the single mother households reported higher levels of ruminative thoughts than offspring from two parent homes. Further, the presence of ruminations for the offspring from single mother households predicted a greater presence of depressive symptoms (cognitive,

behavioral, and affective symptoms) at the two-year follow-up than offspring from two parent families. In a similar study conducted by Daryanani, Hamilton, Abramson, and Alloy (2016), the relationship between single mother parenting and psychopathology of adolescents was examined. Findings corroborated that adolescents from a single mother household were more likely to experience depressive symptoms at the two-year follow up. Additionally, more adolescents in a single mother family (N=157; 68.15% BSMCs) endorsed symptoms related to Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD), with 32% meeting the DSM-IV TR criteria for more than one of the disorders. Furthermore, Jones, Forehand, Brody & Armistead (2002) provided further evidence to support the occurrence of psychological distress with the BSMCH. This study included impoverished Black single mother families with a child between 7-15 years old (N=277). Findings indicated that when offspring from BSMC encounter cumulative risk factors (i.e. ecological threats, the effects of low SES, maternal depressive symptoms, and inadequate parenting), they experience more depressive symptoms, which exacerbate when the amount of experienced risk factors increases from three to four.

These studies only highlight the propensity of findings that suggest that BSMCH offspring are more likely to demonstrate mental health difficulties. Nonetheless, what the consistency of these findings allude to is the psychological distress demonstrated by this population is likely due to economically stressed BSMCH being at an increased risk for experiencing numerous stressful life events, coupled with limited access to resources, and are therefore more vulnerable to psychological distress related to depression, anxiety and behavioral disturbances (Murry & Brody, 1999; McLoyd, Jayaratne, Ceballo & Borquez, 1994; Murry, Bynum, Brody, Willert, & Stephens, 2001; Barber & Eccles, 1992; Goodrum, Jones, Kincaid, & Cuellar, 2012, Anton, Jones, Youngstrom, 2015). However, it is unclear

where the exceptions to the rule, in offspring who demonstrate adaptive functioning and behaviors, fall within the body of research related to psychological outcomes for offspring from BSMCH, given that one would expect them to demonstrate psychological well-being as opposed to, or concurrently with, psychological distress. Notably, the uncertainty related to the potential of offspring from BSMCH to exhibit positive psychological outcomes may be the result of flaws in the measurement of the psychological construct of previous studies, which solely focused on assessing psychological distress of Black offspring from BSMCH.

Psychological distress and well-being are nuanced constructs with one accounting for negative aspects of psychological functioning, and the other accounting for the positive aspects of psychological functioning. Although, psychological distress and psychological well-being share an inverse relationship, they are not restricted to occurring independently. If psychological distress is the sole focus of investigation related to the BSMCH population, that is what the findings will continue to illuminate, neglecting presentations of psychological well-being that can occur simultaneously. In order to obtain an accurate picture of the psychological experience of BSMCH offspring, it is necessary to identify psychological well-being as a target of study, and to date there are limited studies that actually measure psychological well-being for this population (Murry & Brody, 1999; Ronald, 2010; Parent, Jones, Forehand, Cuellar & Shoulberg, 2013). It can be hypothesized that the resilient BSMCH offspring, who may possess *grit* traits are more likely to present with characteristics of psychological well-being, thus, the lack of literature that explores psychological well-being among this population of offspring from BSMCH presents a gap in the literature.

Researchers (Ryff, 1995; Diener, Sapyta & Suh, 1998; Archana & Singh, 2014) have identified a multitude of characteristics that can contribute to

psychological well-being that includes: positive self-regard, independence, positive relationships, a sense of purpose and meaning, perseverance toward targeted goals, temperament, immersion in interesting and pleasurable activities, feelings of joy, happiness, hope, and optimism, self-efficacy, and resilience. These variations of characteristics that can comprise the experience of psychological well-being for offspring of BSMCH, can occur despite experiencing risk factors that make one vulnerable to experienced psychological distress. An initial study by Vinothkumar & Prasad (2016), focused on 21-24-year-old students in Karnataka (N=200), ethnicity unknown, examining the relationship between resiliency, *grit* and psychological well-being and found evidence to support that all 3 variables were positively correlated, with *grit* and psychological well-being sharing a highly significant positive relationship. Therefore, it is necessary to field the research with more empirical studies that assess positive aspects of psychological well-being, rather than focusing on psychological distress. Thus, it would also seem appropriate to assess psychological well-being as a construct, to better address the relationship between *grit* and positive psychological outcomes for offspring of BSMCH.

In addition, research that investigates psychological well-being of offspring from single mother households in general, tends to focus on offspring from divorced and separated families, and the transitioning effects such as parental conflict, diminished contact with a parent, loss of emotional support, lack of supervision, decline in standard of living, moving, changing schools, etc., that show lower levels of psychological well-being (Amato, Loomis & Booth, 1995; Amato & Sobolewski, 2001; Spruijt & de Goede, 1997). As a result, there are opposing arguments regarding whether family processes such as previous parental conflict are more imperative than familial structure in determining the well-being of offspring in single mother households, or if family structure, being a single mother household, is a real and non-trivial contributor to the offspring's psychological well-being (Amato, Loomis, &

Booth, 1995). Nonetheless, this debate further highlights that there is a gap in the research literature regarding the psychological well-being of offspring from single mother households not only from an ethnic perspective, but also from a formative perspective, as not every offspring from a BSMCH is the product of divorce and separation, may not endure those associated transitional effects, and likely does not experience the distress associated with transitions.

Furthermore, increased vulnerability to encountering situations that typically have the potential to trigger psychological distress could instead be a catalyst for psychological well-being. Drawing on the resiliency and *grit* literature, it is plausible that in instances where BSMCH are affected by psychological distress, their hardships may serve as potential motivators in establishing and achieving targeted goals. Ryff (2014) proposed that there are essential factors missing from resiliency literature, such as the impact of experiencing adversity on developing personal growth and promoting resiliency, and the individualistic interpretation of those adverse experiences. Ryff (2014) stated that the interpretation of adverse events, such as risk factors and barriers experienced by the BSMCH, are essential because it creates meaning in one's confrontation with significant life challenges. Therefore, the ability to create meaning in the face of challenges allows one to transform pain or loss into sources of insight, deepened one's understanding of themselves and others, and awareness of personal capacities and talents. This perspective that conceptualizes encounters with adversity as a mechanism to develop psychological well-being provides an explanation for the potential of BSMCH to overcome life's hardships and psychological distress, and subsequently cultivate perseverance as a healthy coping mechanism, thus leading to resiliency and subsequently *grit* being the core intrinsic person-centered variable leading to striving and achievement of success within offspring of BSMCH.

Study Goals, Purpose, & Aims

The focus of the current study is a strength-based focused investigation to determine the influence of maternal perseverance modeled during childhood on future positive outcomes of children. This study examined the relationship between offspring from single mother household's perception of maternal perseverance and passion, and the positive outcomes of young adults, which will include the offspring's level of *grit*, *academic achievement*, and *psychological well-being*. More specifically, the construct of *grit*, a form of resiliency, was used as a predictor for assessing potential differential long-term outcomes in the offspring of BSMC, as compared to their single White counterparts. The selection of White single mother comparison group is noteworthy, given that research regarding Black single mothers have more often used two-parent families as comparison groups, despite single-parent families being inherently different from traditional nuclear two-parent families. It is believed that the *grit* construct may potentially illuminate, and reconcile the perceived contradictions between the negatively held beliefs regarding less optimal outcomes of Black offspring reared in BSMCH, and the notable exceptions to this rule as depicted in the successful Black individuals noted earlier, who have made substantial successful contributions to American society and history. That is, why do some offspring raised in BSMCH, demonstrate factors of resiliency such as *academic achievement* and *psychological well-being*, while others do not?

Hypotheses:

H1: Black maternal caregivers will have higher perceived *grit* scores than White maternal caregivers.

H2: Among maternal caregiver with perceived high *grit* scores, BSMC offspring will demonstrate higher scores of *grit* when compared to White offspring.

H3: Among maternal caregivers with perceived high *grit* scores, their female offspring will report having higher *grit* scores compared to their male counterparts.

H4: Among BSMCs with perceived high *grit* scores, Black female offspring will report having higher *grit* scores compared to their Black male counterparts.

H5: Among BSMCs with perceived high *grit* scores, Black female offspring will report stronger *academic achievement, and psychological well-being* than their Black male counterparts.

H6: The relationship between maternal caregiver *grit* and female offspring academic achievement will be mediated by female offspring *grit*.

METHODS

Study Design

This study was a combination of multivariate and regression analyses, which consisted of three independent variables: Maternal Caregiver-Race (Black vs. White), Participant Gender (Male vs. Female), and the participant's Perception of Maternal Caregiver Passion and Perseverance (grit), as measured by the GRIT- Informant version. The dependent variables include *academic achievement* measured by self-reported Grade Point Average (GPA), *psychological well-being* measured by the *Institute for Health and Productivity Management (IHPM) Wellbeing Questionnaire*, and the *participant's level of passion & perseverance (grit)* measured by the GRIT-Self Report.

Although the participant's identified race will be garnered from the demographic questionnaire, the race of the participant will be determined by the maternal caregiver's race. It is recognized that offspring can identify as a race different from their caregiver. However, due to the purpose of the study, focusing on the impact of offspring being raised in a Black single maternal caregiver household, the maternal caregiver's race will be utilized as the defining independent variable.

Participants

Recruitment of participants consisted of utilizing online resources such as forums, university mailing lists, and social networking sites such as Facebook, Craigslist, Twitter and message boards. These sources of recruitment were to recruit participants residing outside of Eastern Florida, and young adults who did not attend a major university. Additionally, a university subject pool at the Florida Institute of Technology, a private university, was utilized for recruitment purposes in an effort to recruit participants residing in Eastern Florida and attending a 4-year institution. These students received extra credit for an undergraduate course for their

participation, as determined by their professor. In addition, all participants had the option to be entered into a raffle for a \$25 gift card.

The participants of this study consisted of young adults, ages 18 years-30 years, raised in either a BSMCH or a White single maternal caregiver household (N=89). The total number of participants raised in a single maternal caregiver household was 120, which included individuals over the age of 30. However, since the targeted age range for this study was 18-30 years old, the participants over the age of 30, and participants who did not adequately provide information to allow them to be assigned to a specific gender category were removed from the sample (n=14). Additionally, individuals who did not identify their maternal caregiver as Black or White were also removed from the sample (n=17), as the target sample is offspring raised in either a Black or White single maternal caregiver household. In total, 31 participants were removed from the original sample.

Within the sample of 89 participants, 76.4% were female (n=68) and 23.6% were male (n=21). The mean age of participants was 23.84 (SD=3.64; range=18-30), with the highest percentage being 13.8% for both 20- and 27-year olds. The racial composition of the sample consisted of 55.1% participants who identified as White (n=49) and 44.9% who identified as Black (n=40). This was congruent with the racial composition of single maternal caregivers (55.1% White; 44.9% Black). Three participants required recoding of their reported race due to nondisclosure of their race or identifying as biracial. The participant who did not disclose their race, was recoded based on the race they identified for both of their parents. The two participants who identified as biracial, were recoded based on the race of their maternal caregiver.

The largest percentage of participants lived in Florida (37.1%; n=33). However, participant residences also included: Virginia (6.7%; n=6), Washington (9%; n=8), North Carolina (7.9%; n=7), South Carolina (6.7%; n=6), Maryland (4.5%; n=4), Georgia and Louisiana (4.5%; n=4), New York (3.4%; n=3), Tennessee

(2.2%; n=2), and Alabama and New Jersey (2.2%; n=2). The following states each comprised less than 1.1% of the sample: Arizona, Maine, and Rhode Island (n=1), and 5.6% of the sample did not indicate their current state of residence (n=7). The Hollingshead Index defined socioeconomic status. The participant's mean SES fell within the Upper-Middle Class category, with most participants falling within the Upper Middle Class (34.8%) and Middle Class (31.5%) categories. The maternal caregiver mean SES fell within the Upper Middle Class category, with most maternal caregivers falling within the Middle Class (31.5%) and Lower Middle Class (34.8%) categories.

Academically, the participants in the study identified their education level as: 14.6% completed a professional degree (n=13), 25.8% were college graduates (n=23), 44.9% completed 1-3 years of college or business school (n=40), 9% were high school graduates (n=8), 3.4% completed 10-11 years of schooling (n=3), 1.1% completed 7-9 years of schooling, and 1.1% completed under 7 years of schooling (n=1). Further, 67.4% of the sample disclosed that they are currently enrolled in school (n=60). Of the participants currently enrolled, 85.3% were full-time students (n=58), and 14.7% were part-time students (n=10). The majors identified consisted of: 26.6% psychology (n=21), 10.1% Human Relations (8), and 10.1% Science (n=8), 3.8% Engineering (n=3) and Business 7.6% (n=6), Medical 8.9% (n=7), Education 5.1% (n=4), Computer Science 3.8% (n=3), Social Science and Communication 2.5% (n=2), and 1.3% for English, History, Political Science and Human Factors and Safety with Flight (n=1). Regarding academic achievement defined by GPAs, the lowest GPA reported was a 2.0 (3.3%; n=2). The highest GPA noted was a 4.0 (6.7%; n=4) and the average GPA was 3.28 (SD=.56). Additionally,

46.3% participants indicated they intend to pursue an advanced degree (n=38), and 23.2% indicated they were already pursuing one (n=19). The remaining 30.5% denied intention of pursuing an advanced degree (n=25).

Procedure

Archival data from a major study examining the impact of family structure and parenting behaviors on one's overall well-being, achievement, self-esteem and intimate partner relationships was utilized for this study. Approval from the Institutional Review Board (IRB) at Florida Institute of Technology was obtained prior to data collection. Recruitment for the major study did not include any specific parameters for participation, therefore anyone could complete the study that was over the age of 18 years old. Participants for this study were sorted from the original data of the major study based on if a single maternal caregiver raised them. Participants were provided a link that directed them to the online survey that was accessible via Qualtrics. The online survey took approximately 15-30 minutes to complete. The consent form was displayed providing information about the major study, and allowed the participant to consent or decline participation in the study. While 413 individuals viewed the consent form, only 408 responded, with 98.3% providing consent and .5% declining participation. Following consent, the questionnaires of the study were available for completion. Of the individuals who gave their consent to participate in the study, 25.7% did not continue after completing the demographic questionnaire (n=106), leaving 307 participants who started the questionnaires. The questionnaires began with both versions of the GRIT. Four people dropped out between the two versions, leaving 303 participants who completed both versions of the GRIT. Further, 288 participants completed all questionnaires necessary for this study (69.7%), meaning 15 participants dropped out after completing the GRIT questionnaires, but before completing the Wellbeing questionnaire. After

completion, the participant was provided a debriefing form that expressed gratitude for participation, and provided information regarding emergency mental health resources. It is difficult to determine the reasons contributing to the attrition rate. However, it is likely that testing fatigue was a major factor, as the major study questionnaire was lengthy and required a significant amount of time to complete. Although only three surveys were relevant to this study, the major survey consisted of several measures related to intimate partnerships, parenting behaviors, and mental health symptoms. The following measures were utilized for this study:

Measures

Independent Variables

Demographic Questionnaire: Participants were asked to answer items on an especially generated survey for the purposes of collecting demographic data on the sample. Information garnered will be in relation to the participant's self and maternal caregivers. Specific areas to be assessed are ethnicity, age, gender identity, academic standing and performance, and occupational status. The participant will also be asked to provide information about their parents' race, academic achievement, occupational status, relationship status, and their household environment during childhood, specifically who raised the participant, the presence of the caregiver(s), and duration of time in a single mother household. Race of the participant, and maternal and paternal caregivers was originally defined by 9 categories:

1. White/Caucasian
2. Black (African American, Afro Caribbean, African)
3. Hispanic
4. Latino/Latina
5. Asian
6. Pacific Islander

7. Native American
8. Biracial
9. Other

Based on the parameters of the sample, only those who identified as White and Black were accepted as part of the sample for this study. Participants also provided information about their educational and occupational status, as well as their maternal and paternal caregiver's, according to the Hollingshead Index scales:

OCCUPATIONAL SCALE

1. Major Executives of large concerns, major professionals, and proprietors.
2. Lesser professionals and proprietors, and business managers.
3. Administrative personnel, owners of small business and minor professionals.
4. Clerical and sales workers, and technicians.
5. Skilled trades.
6. Machine operators and semiskilled workers.
7. Unskilled employees.

EDUCATIONAL SCALE

1. Professionals (Master's degree, doctorate or professional degree).
2. College graduates.
3. 1-3 years college or business school.
4. High school graduates.
5. 10-11 years of schooling.
6. 7-9 years of schooling.
7. Under 7 years of schooling.

The following formula was utilized to determine and estimate of socioeconomic status/social class: (Occupation Score X 7) + (Education Score X 4). Scores ranging

11- 17 are considered Upper Class; 18-31, Upper-Middle Class; 32-47, Middle Class; 48-63, Lower Middle Class; and 64-77, Lower Class (Stewart & Schwartz, 2003).

GRIT Scale: The GRIT Scale (GRIT-O) is a self-report measure, developed by Angela Duckworth, Ph.D, to measure “trait-level perseverance and passion for long term goals” (Duckworth, Peterson, Matthews, & Kelly, 2007, 1087). It contains 12-items and utilizes a 5-point Likert scale, that requires one to answer if the item is “very much like me,” “mostly like me,” “somewhat like me,” “not much like me,” and “not like me at all.” Each of the 5-point Likert scale options represent a number ranging from 5 (very much like me) to 1(not like me at all), that is summed and divided by 12 to obtain an average. Six-items are positively scored, 5 = Very much like me; 4 = Mostly like me; 3 = Somewhat like me; 2 = Not much like me; 1 = Not like me at all, while the remaining are reverse scored 1 = Very much like me; 2 = Mostly like me; 3 = Somewhat like me; 4 = Not much like me; 5 = Not like me at all. The average score determines if an individual is extremely *gritty*, a score of 5, or not at all *gritty*, score of 1.

The GRIT Scale has two subscales, *Consistency of Interest* over time and *Perseverance of Effort*, which contribute to the overall score of perseverance and passion. The *Consistency of Interest* subscale measures one’s ability to loyally commit to a goal/interest without demonstrating a pattern of frequently changing it (Crede, Tynan & Harms, 2016). This subscale includes the following items from the GRIT:

- I often set a goal but later choose to pursue a different one.
- New ideas and new projects sometimes distract me from previous ones.
- I become interested in new pursuits every few months.
- My interests change from year to year.

- I have been obsessed with a certain idea or project for a short time, but later lost interest.
- I have difficulty maintaining my focus on projects that take more than a few months to complete.

The *Perseverance of Effort* subscale measures one's inclination to continue to work hard to accomplish goals despite being faced with adversity (Crede, Tynan & Harms, 2016). This subscale includes the following items:

- I have achieved a goal that took years of work.
- I have overcome setbacks to conquer an important challenge.
- I finish whatever I begin.
- Setbacks don't discourage me.
- I am a hard worker.
- I am diligent.

The short version of the GRIT scale (GRIT-S) omits 4 items to provide a more efficient measure with improved psychometric properties (Duckworth & Quinn, 2009). GRIT-S consists of 8-items from the original GRIT scale, and utilizes the same 5-option Likert response style that considers "one's ability to work strenuously toward challenges, maintain effort and interest over years despite failure, adversity and plateaus in progress" (Duckworth, 2013). The GRIT-S includes the same subscales and items from the GRIT-O. The following 8-items are included in the GRIT-S:

- New ideas and projects sometimes distract me from previous ones.
- Setbacks don't discourage me.
- I have been obsessed with a certain idea or project for a short time but later lost interest.
- I am a hard worker.

- I often set a goal but later choose to pursue a different one.
- I have difficulty maintaining my focus on projects that take more than a few months to complete.
- I finish whatever I begin.
- I am diligent.

Duckworth & Quinn (2009) have provided evidence to support a correlation of $r=.96$ between GRIT-O scores and GRIT-S score. Further, studies have provided evidence to support the GRIT-S measure has acceptable internal consistency of .73-.83 across multiple samples including West Point Cadets, National Spelling Bee finalists and undergraduates of an Ivy League university (Duckworth & Quinn, 2009). In addition, evidence supports an internal consistency of .73-.79 for the subscale *Consistency of Interest*, and .60-.78 for *Perseverance of Effort*, both of which share an inter-correlation of $r=.59$, $p<.001$ (Duckworth & Quinn, 2009). Additionally, the GRIT-S has been compared with the Big Five Inventory (BFI) and has shown a strong relationship with BFI-Conscientiousness (Duckworth & Quinn, 2009).

Participants will complete two separate versions of the GRIT-S, a respondent self-report version and an informant version. The respondent self-report version will be completed in its original format to assess the participants' perseverance and passion for long term goals. Participants will also complete an informant version of the Grit-S about their maternal caregiver to assess their perception of their maternal caregiver's level of *grit* during their childhood. The items of the informant version will remain identical except for changing gender-specific and third person wording. For example, "I" will be replaced with "my maternal caregiver" and "my/me" will be replaced with "she/her." Duckworth & Quinn (2009) utilized an informant version of the GRIT-S, where respondents completed the survey about a household member.

An internal consistency of .84, and a $r=.45$ between self-report and informant report was found.

Dependent Variables

Institute for Health and Productivity Management (IHPM) Wellbeing Questionnaire:

The Wellbeing Questionnaire is a 21-item measure that assesses the positive and negative emotional states of one's life, as well as one's quality of life by inquiring how often in the past two weeks the participant has experienced characteristics described by the items (IHPM, 2013). The items reflect clinical symptoms and emotional well-being and can be used to assess overall well-being or identify individuals who may benefit from services. In addition, items of the Wellbeing Questionnaire are present on other recognized measures of well-being and global distress (Jones, Brown & Minami, 2013). The Wellbeing Questionnaire utilizes a 5-point Likert scale response style that consists of "Never," "Rarely," "Sometimes," "Often" and "Very Often". Scoring is obtained by calculating a summation of the responses and dividing by 21 to derive an average. The items that reflect positive emotional states are scored as follows: Never = 0; Rarely = 1; Sometimes = 2; Often = 3; Very often = 4, and those that represent negative emotional states are scored: Never = 4; Rarely = 3; Sometimes = 2; Often = 1; Very often = 1. The full-scale score and all domain scores range from 0-4 and fall within three levels of interpretation, very low well-being/severe distress (scores 0-1.4), low well-being/moderate distress (scores 1.5-2.4), and high well-being/normal levels of distress (scores 2.5-4) (Jones, Brown & Minami, 2013). Participants will complete the questionnaire to determine their overall degree of psychological well-being.

The Wellbeing Questionnaire was developed utilizing archival data from 300,000 adults who received psychotherapy during its development (IHPM, 2013). The questionnaire was normed on 478 individuals ages 18-90, and has been used

with 1.5 million people and tested on clinical samples seeking mental health services and non-clinical samples from the workplace and community (Jones, Brown & Minami, 2013).

The Wellbeing Questionnaire has demonstrated strong reliability ($r=.91$) and validity for one's overall well-being, quality of life, and level of psychological distress (IHPM, 2013; Jones, Brown & Minami, 2013). The measure's differential validity has shown an ability to differentiate between different target populations, such as individuals receiving mental health services and individuals in the community who have never sought services (Jones, Brown & Minami, 2013). The questionnaire has strong concurrent validity ($r=.80$) with multiple measures including Patient Health Questionnaire-9 (PHQ-9), Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), Outcome Questionnaire-45 (OQ-45), and the Outcome Rating Scale (Jones, Brown & Minami, 2013). Additionally, the construct validity yields a good representation of the underlying construct (Jones, Brown & Minami, 2013). The domains demonstrate correlations of *Flourishing* ($r=.88$), *Mental/Physical Health* ($r=.84$), *Quality of Life/Life Satisfaction* ($r=.84$), *Productivity* ($r=.82$), and *Substance Abuse* ($r=.28$) (Jones, Brown & Minami, 2013).

The Wellbeing Questionnaire is derived of 5 domains, *flourishing*, *mental/physical health*, *quality of life/life satisfaction*, *productivity*, and *substance abuse*, which were created from the literature about well-being and quality of life (IHPM, 2013). The *flourishing* domain focuses on one's good or positive feelings about their self and their enjoyment or work and other activities that consist within their daily life. The following items are included within this domain:

- Feel good/positive about yourself?
- Enjoy your leisure time?
- Have a good energy?
- Enjoy spending time with family or friends?

- Enjoy your work and other activities of daily life?
- Have the right amount of sleep?

The *Mental/Physical Health* domain examines one's unhappy or sad feelings, and physical pain or other health problems that may be present. The following items are included within this domain:

- Have physical pain or other health problems?
- Worry about a lot of things?
- Feel unhappy or sad?
- Feel nervous or anxious?
- Cut back on activities due to physical or emotional health problems?
- Feel hopeless about the future?
- Feel lonely?

The *Quality of Life/Life Satisfaction* domain assesses one's feelings of fulfillment with life, and fortunate feelings about their social relationships. The following items are included within this domain:

- Feel fulfilled in life?
- Feel happy with your living situation?
- Feel fortunate about your social relationships?

The *Productivity* domain measures one's motivation to accomplish tasks, and difficulties with sustaining attention. The following items are included within this domain:

- Feel unmotivated to do anything?
- Feel unproductive at work or other daily activities?
- Have a hard time paying attention?
- Accomplish most of what you wanted to do?

The *Substance Abuse* domain focuses on measuring problems that are occurring at work or home from the use of alcohol and drugs. The following items are included within this domain:

- Have problems at work, school or home due to use of drugs or alcohol?

GRIT Scale: Aforementioned, the GRIT-S Scale will be utilized with original wording as a self-report measure of a participant's perceived level of passion and perseverance.

RESULTS

Preliminary Analysis

Preliminary analysis were completed to ensure the most parsimonious analysis and to identify any potential covariates. Descriptive statistics of the demographic variables from the sample, including race, age, residence, occupation status, SES, achieved education, GPA, major, duration of time living in a single maternal caregiver household, and time spent with non-custodial caregiver, were computed. Given the independent variable of Maternal Caregiver Race (MC-Race), which tended to be highly correlated with the demographic variables, the preliminary analyses examined equality of groups on all the aforementioned demographic variables with respect to MC-Race and participant's gender. Significant differences among racial and gender categories found with respect to the other demographic variables that describe the sample, were used as covariates in the subsequent main analysis to test the proposed study hypotheses.

One-way Analysis of Variance (ANOVAs)

In order to assess for group level differences of the Participant's Gender, with all continuous demographic variables, a series of one-way ANOVAs were performed with Participant Gender serving as the independent factor, and all continuous demographic variables serving as the dependent variables (*participant SES, maternal caregiver SES, number of colleges participant attended, participant GPA*). However, there were no significant main effects found for Participant Gender (See Table 1).

Table 1. Frequencies of Participant Gender and Continuous Demographic Variables

	Participant Gender		F
	Female	Male	
	M (SD)	M (SD)	
Participant SES	42.78 (17.22)	41.14 (16.13)	.15
Maternal Caregiver SES	36.56 (17.29)	41.48 (15.10)	1.37
Number of Colleges Participant Attended	2.43 (.98)	2.24 (.83)	.63
Participant GPA	3.31 (.60)	3.21 (.43)	.33
Participant's Age at Parent's Separation (Months)	83.03 (62.63)	80.57 (55.01)	.03
Participant's Age at Parent's Divorce (Months)	96.70 (66.33)	107.31 (82.45)	.23
Participant's Age MC Remarried (Years)	14.00 (8.28)	9.50 (4.68)	1.60
Number of times Maternal Caregiver Remarried	1.26 (.65)	1.00 (.00)	.79
Duration of Single Motherhood (Months)	141.79 (77.34)	121.70 (55.79)	1.16

Note: * = $p < .05$ ** = $p < .01$

In order to assess for group level differences of the Maternal Caregiver Race (MC-Race) with respect to all continuous demographic variables, a series of one-way ANOVAs were performed with MC-Race serving as the independent factor, and all continuous demographic variables serving as the dependent variables (*participant SES, maternal caregiver SES, number of colleges participant attended, participant GPA*). A significant main effect of MC-Race was found with respect to GPA

[$F(1,60)=25.34, p<.01$] such that participants from a White single maternal caregiver household reported higher *GPA*s ($M=3.6, SD=.31$) as compared to their Black counterparts ($M=3.0, SD=.59$). A marginal main effect was also found with respect to the number of times the maternal caregiver remarried [$F(1,24)=3.31, p=.08$] such that Black single maternal caregivers were reported as remarrying more frequently ($M=1.42, SD=.79$) than their White counterparts ($M=1, SD=.00$). Similarly, marginal main effects were found regarding the duration of single motherhood [$F(1,86)=3.04, p=.09$] with Black offspring reporting longer durations of living in a single parent household ($M=152.37, SD=82.70$) compared to their White counterparts ($M=125.04, SD=62.77$). No significant differences were found with respect to any of the remaining demographic variables. [See table 2].

Table 2. Frequencies of MC-Race and Continuous Demographic Variables

	MC-Race		F
	Black	White	
	M (SD)	M (SD)	
Participant SES	40.97 (16.17)	43.51 (17.53)	$F(1,88)=.49, p=.49$
Maternal Caregiver SES	36.05 (16.43)	39.08 (17.23)	$F(1,89)=.71, p=.40$
Number of Colleges Participant Attended	2.35 (1.00)	2.41 (.91)	$F(1, 89)=.08, p=.78$
Participant GPA	3.00 (.59)	3.60 (.31)	$F(1,60)=25.34,$ $p<.01^{**}$
Participant's Age at Parent's Separation (Months)	77.09 (61.63)	86.11 (59.89)	$F(1,80)=.43, p=.51$
Participant's Age at Parent's Divorce (Months)	88.83 (70.37)	104.05 (69.84)	$F(1,56)=.58, p=.45$
Participant's Age MC Remarried (Years)	12.86 (8.23)	13.21 (7.67)	$F(1,24)=3.31,$ $p=.08$
Number of times Maternal Caregiver Remarried	1.42 (.79)	1.00 (.00)	$F(1, 28)=.01, p=.91$
Duration of Single Motherhood (Months)	152.37 (82.70)	125.04 (62.77)	$F(1,86)=3.04,$ $p=.09$

Note: * = $p < .05$ ** = $p < .01$

Chi-Square Tests of Independence

A series of chi square tests of independence were completed to assess for significant group level differences between MC-Race and Participant Gender with

the following categorical demographic variables: *participant's state of residency, participant's occupation, participant's level of education, participant's major, participant's current status in school, participant's desire to pursue graduate school, MC-Race, maternal caregiver's level of education, whether the maternal caregiver remarried, whether maternal caregiver was a stay at home caregiver while parents were together and separated, custody arrangement, and participant's identification of primary caregiver during childhood.*

As can be seen by the frequencies cross tabulated in Table 3, there was a significant relationship between Participant Gender and participant major, $\chi^2(14) = 27.07, p < .05$. Females identified the following majors more than their male counterparts: Psychology, Science, Business, Social Science, Human Relations, Education, Medical, and History. Only males reported Political Science, Engineering and Human Factors & Safety with Flight as majors. Males also identified Computer Science more than females. There were no gender differences for the major Communication.

Table 3. Results of Chi-square Test and Descriptive Statistics for Participant's Major by Gender

Participant's Major	Participant Gender	
	Female	Male
Psychology	18(29.5)	3(16.7)
Science	6(9.8)	2(11.1)
Engineering	0(0)	3(16.7)
English	1(1.6)	0(0)
Communication	1(1.6)	1(5.6)
Business	5(8.2)	1(5.6)
Computer Science	1(1.6)	2(11.1)
Social Science	2(3.3)	0(0)
Human Relations	8(13.1)	0(0)
Education	4(6.6)	0(0)
Medical	5(8.2)	2(11.1)
History	1(1.6)	0(0)
Human Factors & Safety w/ Flight	0(0)	1(5.6)
Political Science	0(0)	1(5.6)
Not Applicable	9 (14.8)	2(11.1)

Note. $\chi^2 = 27.07$, $df=14$. Numbers in parentheses indicate column percentages next to group frequencies. * $p < .05$

Seen in Table 4, there was a significant relationship between Participant Gender and participant's desire to pursue graduate school, $\chi^2(2) = 8.96$, $p < .05$. Females were more inclined to say yes to pursuing graduate school (84.2%) or were actively pursuing graduate school (89.5%) compared to their male counterparts.

Table 4. Results of Chi-square Test and Descriptive Statistics for Participant's Desire to Pursue Graduate School by Gender

Participant's Desire to Pursue Graduate School	Participant Gender	
	Female	Male
Yes	32(50.8)	6(31.6)
No	14(22.2)	11(57.9)
Already Pursuing Graduate School	17(27.0)	2(10.5)

Note. $\chi^2 = 8.96$, $df = 2$. Numbers in parentheses indicate column percentages next to group frequencies. * $p < .05$

Seen in Table 5, there was a significant relationship between Participant Gender and who the participant lived with after the divorce, $\chi^2 (2) = 8.66$, $p < .05$. Females reported that they lived with their maternal caregiver or had a 50/50 time sharing arrangement with both parents following the divorce more than their male counterparts. No males reported a 50/50 time sharing arrangement between both caregivers. Only males reported living with their paternal caregiver following the divorce.

Table 5. Results of Chi-square Test and Descriptive Statistics for Living Arrangement by Gender

Parent Participant Lived w/the most	Participant Gender	
	Female	Male
Maternal Caregiver	65(95.6)	19(90.5)
Paternal Caregiver	1(1.5)	2(9.5)
50/50 time-sharing b/t both caregivers	2(2.9)	0(0)

Note. $\chi^2 = 8.66$, $df = 2$. Numbers in parentheses indicate column percentages next to group frequencies. * $p < .05$

There was a marginal relationship between Participant Gender and parental marital status, $\chi^2 (4) = 9.05, p = .06$, as seen in Table 3. Females reported a maternal caregiver that was either never married, divorced or widowed, more than their male counterparts. [See Table 6].

Table 6. Results of Chi-square Test and Descriptive Statistics for Parent's Marital Status by Gender

Parental Marital Status	Participant Gender	
	Female	Male
Never Been Married but Cohabitated	5(7.5)	3(17.6)
Never Been Married and Did Not Cohabitate	17(25.4)	2(11.8)
Separated	5(7.5)	5(29.4)
Divorced	39(58.2)	7(41.2)
Widowed	1(1.5)	0(0)

Note. $\chi^2 = 9.05, df = 4$. Numbers in parentheses indicate column percentages next to group frequencies.

There were no significant relationships found between the Gender of Participant and the remaining categorical demographic variables: state of residency, $\chi^2 (14) = 19.60, p = .14$; participant's occupation, $\chi^2 (6) = 3.15, p = .79$; participant's level of education, $\chi^2 (6) = 9.64, p = .14$; participant's current status in school, $\chi^2 (1) = .08, p = .78$; participant's primary caregiver during childhood, $\chi^2 (2) = 1.76, p = .41$; MC-Race, $\chi^2 (1) = .52, p = .47$; maternal caregiver level of education, $\chi^2 (6) = 4.82, p = .57$; whether maternal caregiver remarried, $\chi^2 (2) = 3.36, p = .19$; maternal caregiver being a stay at home caregiver after marriage, $\chi^2 (1) = .01, p = .93$; who the participant lived with after separation, $\chi^2 (2) = 3.75, p = .15$; if divorce followed separation, $\chi^2 (1) = .20, p = .66$; and custody arrangement, $\chi^2 (4) = 1.67, p = .80$.

With regard to MC-Race, there were several significant differences with the categorical demographic variables. Seen in table 7, there was a significant difference with the relationship status of participant, $\chi^2(3)=8.66, p<.05$. Black participants reported being single and divorced more than White counterparts. White participants reported cohabitation more than Black participants, and there were no racial differences for marital status.

Table 7. Results of Chi-square Test and Descriptive Statistics for Participant's Relationship Status by Maternal Caregiver Race

Participant's Relationship Status	MC-Race	
	Black	White
Single	32(80)	28(57.1)
Cohabiting	4(10)	17(34.7)
Married	3(7.5)	4(8.2)
Divorced	1(2.5)	0(0)

Note. $\chi^2=8.66, df=3$. Numbers in parentheses indicate column percentages next to group frequencies. * $p<.05$

Table 8 highlights a significant difference between MC-Race and state of residence, $\chi^2(14)=38.73, p<.01$. More White participants reported living in Florida, Louisiana, Maine, New Jersey, New York, North Carolina, Rhode Island, Tennessee, and Arizona. More Black participants reported living in Maryland, South Carolina, Virginia, and Washington.

Table 8. Results of Chi-square Test and Descriptive Statistics for Participant's State of Residency by Maternal Caregiver Race

State of Residency	MC-Race	
	Black	White
Alabama	1(2.6)	1(2.2)
Arizona	0(0)	1(2.2)
Florida	9(23.1)	24(53.3)
Georgia	2(5.1)	2(5.1)
Louisiana	0(0)	4(8.9)
Maine	0(0)	1(2.2)
Maryland	4(10.3)	0(0)
New Jersey	0(0)	2(4.4)
New York	1(1.2)	2(4.4)
North Carolina	3(7.7)	4(8.9)
Rhode Island	0(0)	1(2.2)
South Carolina	5(12.8)	1(1.2)
Tennessee	0(0)	2(4.4)
Virginia	6(15.4)	0(0)
Washington	8(20.5)	0(0)

Note. $\chi^2 = 38.73$, $df = 14$. Numbers in parentheses indicate column percentages next to group frequencies. ** $p < .01$

There was a marginal difference between MC-Race and participant major, $\chi^2(14) = 21.39$, $p = .09$, seen in Table 9. More White participants reported not currently being in school, and Psychology, Science, Engineering, Computer Science, Education, History, and Political Science as majors. More Black participants

reported English, Social Science, Human Relations, Medical, and Human Factors & Flight Safety as majors.

Table 9. Results of Chi-square Test and Descriptive Statistics for Participant's Major by Maternal Caregiver Race

Participant's Major	MC-Race	
	Black	White
Psychology	8(20.5)	13(32.5)
Science	3(7.7)	5(12.5)
Engineering	1(2.6)	2(5.0)
English	1(2.6)	0(0)
Communication	1(2.6)	1(2.5)
Business	3(7.7)	3(7.5)
Computer Science	0(0)	3(3.8)
Social Science	2(5.1)	0(0)
Human Relations	8(20.5)	0(0)
Education	1(2.6)	3(7.5)
Medical	5(12.8)	2(5)
History	0(0)	1(2.5)
Human Factors & Safety w/ Flight	1(2.6)	0(0)
Political Science	0(0)	1(2.5)
Not Applicable	5(12.8)	6(15)

Note. $\chi^2 = 21.39$, $df = 14$. Numbers in parentheses indicate column percentages next to group frequencies.

There was a significant difference between MC-Race and participant's desire to pursue graduate school, $\chi^2 (2) = 9.78$, $p < .01$. White participants reported they were

not interested or were already pursuing graduate school more than Black participants. Black participants reported more intention towards pursuing graduate school than their White counterparts. [See Table 10].

Table 10. Results of Chi-square Test and Descriptive Statistics for Participant's Desire to Pursue Graduate School by Maternal Caregiver Race

Participant's Desire to Pursue Graduate School	MC-Race	
	Black	White
Yes	25(64.1)	13(30.2)
No	7(17.9)	18(41.9)
Already Pursuing Graduate School	7(17.9)	12(27.9)

Note. $\chi^2 = 9.78$, $df = 2$. Numbers in parentheses indicate column percentages next to group frequencies. ** $p < .01$

There was a significant difference between MC-Race and parental marital status, $\chi^2 (4) = 17.57$, $p < .01$. White participants were more likely to be separated or divorced while Black participants were more likely to be never married, cohabitating, or widowed. [See Table 11].

Table 11. Results of Chi-square Test and Descriptive Statistics for Parent's Marital Status by Maternal Caregiver Race

Parental Marital Status	MC-Race	
	Black	White
Never Been Married but Cohabitated	5(13.5)	3(6.4)
Never Been Married and Did Not Cohabitate	15(40.5)	4(8.5)
Separated	2(5.4)	8(17.0)
Divorced	14(37.8)	32(68.1)
Widowed	1(2.7)	0(0)

Note. $\chi^2 = 17.57$, $df=4$. Numbers in parentheses indicate column percentages next to group frequencies. ** $p < .01$

Seen in Table 12, there was a significant difference between MC-Race and whether divorce followed separation, $\chi^2 (1) = 6.67$, $p < .05$. White participants were more likely than Blacks participants to say "yes". Black participants were more likely to say no, which is likely related to the finding that Black maternal caregivers were more likely to have never been married.

Table 12. Results of Chi-square Test and Descriptive Statistics for Divorce Following Parent's Separation by Maternal Caregiver Race

Divorce Following Parent's Separation	MC-Race	
	Black	White
Yes	20(51.3)	38(77.6)
No	19(48.7)	11(22.4)

Note. $\chi^2 = 6.67$, $df=1$. Numbers in parentheses indicate column percentages next to group frequencies. * $p < .05$

There was a marginal difference between MC-Race and custody arrangement, $\chi^2(4) = 8.81, p = .07$, as can be seen in Table 13. For White participants, the mother had primary physical custody more than Black counterparts. More Black participants endorsed shared custody and that they did not know the custody arrangement following the divorce. Only Black participants had the father have primary physical custody and the endorsement of another family member having custody was comparable between both races.

Table 13. Results of Chi-square Test and Descriptive Statistics for Custody Arrangement by Maternal Caregiver Race

Custody Arrangement	MC-Race	
	Black	White
Primary Physical Custody-Mother	26(65)	44(89.8)
Primary Physical Custody-Father	1(2.5)	0(0)
Shared Physical Custody	6(15.0)	2(4.1)
Primary Physical Custody-Family Member	1(2.5)	1(2.0)
I don't know	6(15.0)	2(4.1)

Note. $\chi^2 = 8.81, df = 4$. Numbers in parentheses indicate column percentages next to group frequencies.

There was a significant difference between the MC-Race and who the participant lived with after divorce, $\chi^2(2) = 13.21, p < .01$. More White participants lived with their maternal caregiver after the divorce. Only Black participants endorsed 50/50 timesharing arrangement between both caregivers. There were no racial differences for paternal caregiver. [See Table 14].

Table 14. Results of Chi-square Test and Descriptive Statistics for Living Arrangement by Maternal Caregiver Race

Parent Participant Lived with the most	MC-Race	
	Black	White
Maternal Caregiver	13(65.0)	37(97.4)
Paternal Caregiver	1(5.0)	1(2.6)
50/50 time-sharing b/t both caregivers	6(30.0)	0(0)

Note. $\chi^2 = 13.21$, $df=2$. Numbers in parentheses indicate column percentages next to group frequencies. ** $p < .01$

There were no significant differences regarding MC-Race and participant occupation, $\chi^2 (6) = 2.94$, $p = .82$, participant education, $\chi^2 (6) = 3.78$, $p = .71$, maternal caregiver education, $\chi^2 (6) = 5.76$, $p = .45$. There was no significant difference between MC-Race and primary caregiver, $\chi^2 (2) = 1.11$, $p = .58$. There was no significant difference between MC-Race and the parent lived with after separation, $\chi^2 (2) = 3.17$, $p = .21$. There was no significant difference between MC-Race and time spent with non-custodial parent, $\chi^2 (8) = 6.78$, $p = .56$, remarriage of the maternal caregiver, $\chi^2 (2) = .65$, $p = .72$, stay at home motherhood after divorce, $\chi^2 (1) = .32$, $p = .57$.

Correlational Matrix of Demographic Variables

Two separate composite correlational matrices Black participants (see Table 15) and then for White Participants (see Table 16) were performed to identify correlational relationships among the demographic variables (participant's age, the duration of time the participant lived in a single mother household, custody arrangement, participant SES and maternal caregiver SES). Each correlational matrix also included the independent variables of Perceived Level of Maternal Grit (MC-

Consistency of Interest and MC-Perseverance of Effort), and Participant Gender (male vs. female), and dependent variables of *participant’s grit achievement (P-Consistency of Interest and P-Perseverance of Effort)*, *academic (GPA)*, and *psychological well-being (Flourishing, Mental-Physical Health, Quality of Life, Productivity)*.

Table 15. Correlation Matrix of Demographic Variables and Dependent Variables for Black Participants

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Age (Months)	23.77	3.54	-	-0.102	0.053	.380*	-0.262	0.041	0.092	0.132	0.165	-0.032	-0.047	0.054	-0.206	0.009	
P-SES	40.98	16			.490**	-0.15	-.398*	-0.008	0.029	0.115	0.297	0.095	-.406*	-0.158	-.417**	-0.196	
MC-SES	36.85	17				-.420*	-.325*	0.217	0.145	0.178	0.045	.333*	-0.268	-0.116	-.346*	-0.217	
GPA	2.99	0.58					0.194	-0.283	-0.166	0.186	-0.039	-0.011	-0.191	0.298	-0.074	0.08	
Time Spent w/NC Parent	4.3	2.81						-.333*	-0.088	-0.09	-0.16	-0.23	.359*	-0.039	.464**	0.302	
Duration of SM Parenthood (Months)	153.4	81.9							-0.206	0.143	-0.183	0.019	0.168	-0.243	-0.023	-0.068	
MC-Consistency	1.85	0.9								-0.087	.631**	-0.123	-0.167	-0.022	-0.133	0.021	
MC-Perseverance	2.71	1.04									-0.13	.506**	-0.238	0.114	-0.286	0.145	
P-Consistency	2.02	0.93										-0.111	-0.308	-0.149	-0.294	0.12	
P-Perseverance	2.95	1.03												-.464**	-0.209	-0.281	0.06
WellBeing-Flourishing Subscale	3.46	1												0.029	.752**	0.1	
WellBeing-Mental/Physical Health Subscale	1.48	0.73													-0.047	0.15	
WellBeing-Quality of Life Subscale	3.16	0.97														0.214	
WellBeing-Productivity Subscale	1.7	0.67															

* Correlation is significant at the 0.05 level (2-tailed).

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

As seen in Table 15, for Black participants, age was positively correlated with GPA, ($r=.38, p<.05$). However, there was no significant relationship between age and GPA for the White participants (see Table 16). Additionally, White participant GPA was negatively correlated with White MC-Consistency ($r=.50, p<.01$). Accordingly, White MC-Consistency was negatively correlated with several of participant’s wellbeing subscales: *Flourishing* ($r=-.35, p<.05$) and *Mental/Physical Health* ($r=-.39, p<.05$). [See Table 16].

As can be seen in Table 15, Black participant’s SES was negatively correlated with *Flourishing* ($r=-.41, p<.05$) and *Quality of Life* ($r=.42, p<.05$). Whereas White participant’s SES was only negatively correlated with *Flourishing* ($r=-.34, p<.05$).

Black MC-SES was negatively correlated with participant's GPA, ($r=-.42$, $p<.05$), time spent with non-custodial parent, ($r=-.33$, $p<.05$), and the *Quality of Life* wellbeing subscale for Black participants ($r=-.35$, $p<.05$). Black MC-SES was also positively correlated with Black participant's *perseverance* ($r=.33$, $p<.05$). [See Table 15]. White MC-SES was negatively correlated with white participant's GPA, ($r=-.38$, $p<.05$), and several of the wellbeing subscales: *Flourishing* ($r=-.41$, $p<.01$), *Mental/Physical Health* ($r=-.37$, $p<.05$), and *Quality of Life* ($r=-.43$, $p<.01$). White MC-SES was positively correlated with White MC-Consistency, ($r=.51$, $p<.01$). [See Table 16].

For White participants, *Consistency of Interest* GRIT was negatively correlated with several wellbeing subscales: *Flourishing* ($r=-.32$, $p<.05$), and *Quality of Life* ($r=-.37$, $p<.05$) [See Table 16]. However, for the Black participants there were no significant relationships between participant *Consistency of Interest* GRIT and the wellbeing scales. Instead, Black participant *Perseverance of Effort* GRIT was negatively correlated with *Flourishing* wellbeing ($r=-.46$, $p<.01$). [See Table 15].

As seen in Table 15, Black participant's time spent with non-custodial parent was positively correlated with several wellbeing subscales: *Flourishing* ($r=.36$, $p<.05$), and *Quality of Life* ($r=.46$, $p<.01$). For White participants, time spent with non-custodial parent was positively correlated with *Quality of Life* ($r=.37$, $p<.05$) and negatively correlated with *Flourishing* wellbeing subscale ($r=-.46$, $p<.01$). [See Table 16].

Table 16. Correlation Matrix of Demographic Variables and Dependent Variables for White Participants

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Age (Months)	23.9	3.75	-	-0.17	-0.244	0.276	-0.126	0.111	-0.248	-0.016	0.031	-0.085	-0.14	0.194	0.098	0.076
P-SES	43.56	17.7	-	.482**	0.016	-0.201	-0.152	0.176	0.087	0.169	0.032	-.342*	-0.261	-0.224	-0.273	
MC-SES	38.46	16.8	-	-	-.377*	-0.2	-0.061	.508**	0.236	0.224	0.112	-.408**	-.365*	-.420**	0.078	
GPA	3.597	0.31	-	-	-	-0.118	0.256	-.496**	-0.214	-0.284	-0.306	0.24	0.059	-0.116	-0.276	
Time Spent w/NC Parent	4.29	2.46	-	-	-	-	-0.108	0.257	0.041	0.056	0.089	.455**	0.065	.368*	-0.151	
Duration of SM Parenthood (Months)	123.6	62.7	-	-	-	-	-	-0.114	-0.239	0.173	-0.034	-0.093	0.228	-0.166	0.038	
MC-Consistency	2.283	0.89	-	-	-	-	-	-	-.426**	.412**	0.219	-.347*	-.386*	-0.282	0.018	
MC-Perseverance	2.671	1	-	-	-	-	-	-	-	-0.051	.308*	-0.157	-0.225	-0.002	-0.095	
P-Consistency	1.967	0.7	-	-	-	-	-	-	-	-	.359*	-.318*	-0.291	-.367*	0.076	
P-Perseverance	2.804	0.73	-	-	-	-	-	-	-	-	-	-0.129	-0.279	-0.123	-0.09	
WellBeing-Flourishing Subscale	3.425	0.73	-	-	-	-	-	-	-	-	-	-	0.279	.657**	-0.267	
WellBeing-Mental/Physical Health Subscale	1.208	0.56	-	-	-	-	-	-	-	-	-	-	-	.364*	0.137	
WellBeing-Quality of Life Subscale	3.278	0.97	-	-	-	-	-	-	-	-	-	-	-	-	-0.284	
WellBeing-Productivity Subscale	1.705	0.51	-	-	-	-	-	-	-	-	-	-	-	-	-	

* Correlation is significant at the 0.05 level (2-tailed).

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

In instances where significant group level differences with respect to MC-Race and Participant Gender on demographic variables, and significant correlational relationships were found, such variables were identified as potential confounds to the study. These variables included: *the number of times the maternal caregiver remarried, duration of single motherhood, maternal caregiver SES, participant SES, and time spent with non-custodial parent (custody arrangement)*. However, *duration of single motherhood* and *the number of times the maternal caregiver remarried* were both found to be only marginally significant for MC-RACE differences. Therefore, they were eliminated as potential covariates, and only *custody arrangement, maternal caregiver SES, participant SES* were identified as being significant to MC-RACE group level differences. As such these variables were statistically controlled for in the subsequent main analysis, as covariates.

Exploratory Factor Analysis of GRIT by Maternal Caregiver and Participant Race

Four exploratory factor analyses were computed in order to examine racial differences in the structure of the GRIT measure for self-ratings by participants and

ratings of their maternal caregivers. Factors with eigenvalues greater than one were orthogonally rotated. For the BSMC rating, two factors emerged, consistent with original the GRIT measure, as seen in Table 17. All items that were originally established for the *perseverance of effort* subscale loaded onto the same factor, and all items established for the *consistency of interest* subscale loaded onto a second factor. Table 17 demonstrates that for the Black participant self-ratings, three factors emerged. All items originally identified as the *consistency of interest* subscale loaded into the same factor. All but one item from the *perseverance of effort* subscale loaded onto a second factor. “Setbacks don’t discourage me” loaded onto a third factor, in contrast to the findings for the BSMC ratings.

A three-factor structure emerged for the White Single Maternal Caregiver rating, as seen in Table 17. All items of the *consistency of interest* subscale loaded into the same factor structure. Two items, “Setbacks didn’t discourage my maternal caregiver” and “My maternal caregiver finished whatever she began,” of the *perseverance of effort* subscale loaded onto a third factor. Table 17 highlights that the White participant self-ratings yielded a four factor structure, however in a dissimilar pattern from ratings of their White maternal caregivers. Within the *consistency of interest* subscale, two items “New ideas and projects sometimes distract me from previous ones” and “I have difficulty maintaining my focus on projects that take more than a few months to complete,” loaded onto a third factor. One item of the perseverance of effort subscale, “I achieved a goal that took years of work.” loaded onto a fourth factor. Within the White sample, both maternal caregivers and offspring demonstrated factor loadings that were different from how the measure was designed and from their Black counterparts. Additionally, there were within group differences, as each rating, maternal caregiver and participant, demonstrated a factor loading pattern that was incongruent to each other.

Table 17. Original Factor Analysis Structure of GRIT

		Black		White	
		MC	P	MC	P
1st Factor Structure: Perseverance of Effort					
1	My maternal caregiver overcame setbacks to conquer an important challenge.	0.875	0.93	.665	.523
4	Setbacks didn't discourage my maternal caregiver.	0.586			.757
6	My maternal caregiver was a hard worker.	0.926	0.917	.877	.614
9	My maternal caregiver finished whatever she began.	0.889	0.785		.758
1	My maternal caregiver achieved a goal that took years of work.	0.837	0.922	.739	
12	My maternal caregiver was diligent.	0.901	0.931	.880	.889
2nd Factor Structure: Consistency of Interest					
2	New ideas and projects sometimes distracted my maternal caregiver from previous ones.	0.729	0.832	.756	
3	My maternal caregiver's interests changed from year to year.	0.899	0.707	.861	.872
5	My maternal caregiver has been observed with a certain idea or project for a short time but later lost interest.	0.925	0.906	.856	.566
7	My maternal caregiver often set a goal but later choose to pursue a different one.	0.81	0.789	.773	.605
8	My maternal caregiver had difficulty maintaining her focus on projects that took more than a few months to complete.	0.873	0.824	.602	
11	My maternal caregiver became interested in new pursuits every few months.	0.754	0.776	.798	.824
3rd Factor Structure Part I: Perseverance of Effort - BLACK PARTICIPANTS & WHITE MC					
4	Setbacks didn't discourage my maternal caregiver.		0.74	0.8	
9	My maternal caregiver finished whatever she began.			0.76	
3rd Factor Structure Part II: Consistency of Interest (2&8) Perseverance of Effort (10) - WHITE PARTICIPANTS					
2	My maternal caregiver had difficulty maintaining her focus on projects that took more than a few months to complete.				.793
8	My maternal caregiver had difficulty maintaining her focus on projects that took more than a few months to complete.				.846
10	I have achieved a goal that took years of work.				.636

Nonetheless, the GRIT subscales have significant positive correlations with each other, and across the mother offspring dyad, as evidenced by the correlation matrix (See Tables 15 and 16). Therefore, an additional analysis was conducted to force the factor loading for the Black participants, and White maternal caregivers and participants, into two factors, which is shown in Table 18. This analysis was successful, such that a two-factor structure emerged for each sample group containing items congruent with the development of the measure’s subscales.

Table 18. Forced 2 Factor Structure Analysis of GRIT

		P-Black		MC-White		P-White	
		1	2	1	2	1	2
1	.....overcame setbacks to conquer an important challenge.	.920	-.011	.836	.191	.694	-.265
2	New Ideas & projects sometimes distract...	-.185	.768	.177	.783	.477	.603
3	.....inteests change from year to year.	-.029	.817	.054	.838	-.135	.866
4	Setbacks didn't discourage....	.671	-.176	.683	.189	.719	.234
5	....observed with a certain idea or project for a short time but later lost interest.	-.085	.841	.216	.784	.111	.507
6	....a hard worker.	.910	-.099	.750	.121	.762	.150
7	....often set a goal but later choose to pursue a different one.	.077	.819	.318	.814	.262	.729
8	....difficulty mintaining her focus on projects that took more than a few months to complete.	-.022	.823	.531	.650	.432	.573
9	.... finished whatever she began.	.820	.042	.621	.264	.767	.385
10	....achieved a goal that took years of work.	.920	-.015	.801	-.037	.734	.076
11	....became interested in new pursuits every few months.	-.113	.849	-.053	.825	-.186	.811
12	....diligent.	.931	-.101	.860	.116	.696	-.011

Main Analyses

Hypothesis 1: Black maternal caregivers will have higher perceived grit scores than White maternal caregivers.

To test hypothesis one, a MANCOVA was conducted. The independent factor was MC-Race with two levels (White vs Black), and the dependent variables were the two GRIT subscales measuring maternal caregiver *grit*, that is *Consistency of Interest* and *Perseverance of Effort*. In addition, maternal caregiver SES and custody arrangement were used as covariates no other covariates were used for this analysis as they were determined to not be significant by the initial main analysis. For the multivariate test, there was a significant main effect of MC-Race, [$F(2,85)=9.12, p<.01, \eta_p^2=.19$]. Examining the univariate tests, the MC-Race main effect was significant for *consistency of interest*, [$F(1,81)=18.47, p<.01, \eta_p^2=.19$]. Findings were such that offspring from White maternal caregiver households reported that their maternal caregivers had higher perceived *consistency of interest* ($M=2.41, SD=.91$) than their Black counterparts ($M=1.70, SD=.85$). There was no significant effect of MC-Race on Maternal Caregiver *perseverance of effort* (MC-Perseverance), [$F(1,81)=.05, NS$].

Hypothesis 2: Among maternal caregiver with perceived high grit scores, BSMC offspring will demonstrate higher scores of grit when compared to White offspring.

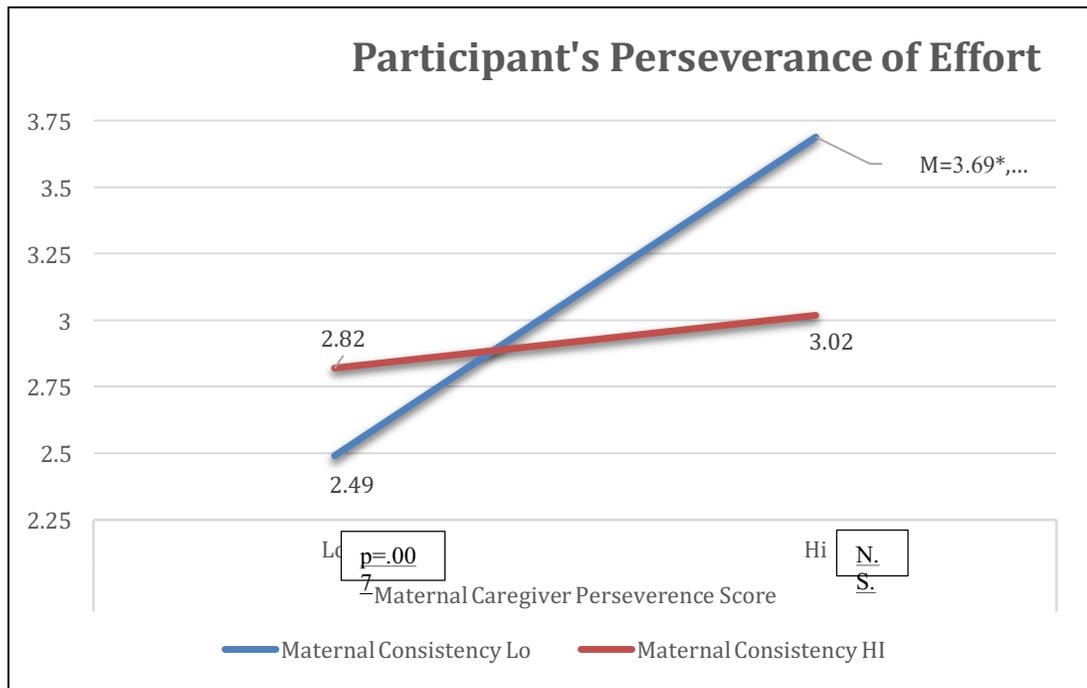
To test hypothesis 2, a 2 x 2 x 2 MANCOVA was performed in which the independent factors were MC-Race (White vs. Black), MC-Perseverance (high vs. low) and MC-Consistency (high vs. low). The dependent variable was participant *grit*, as defined by *participant's perseverance of effort* and *consistency of interest*. Custody Arrangement served as a covariate based on preliminary analysis, and no

other covariates were used for this analysis as they were determined not significant by the initial main analysis.

Counter to expected there were no significant 2-way interactions of MC-Race x MC-Perseverance [$F(2,85)=.75$, NS] nor MC-Race x Consistency [$F(2,85)=1.34$, N.S.]. However, the 2x2x2 factorial model at the multivariate level of analysis did reveal a significant interaction between the two types of MC-GRIT (i.e. MC-Perseverance of Effort x MC-Consistency of interest), [$F(2,85)=3.07$, $p=.05$] At the univariate level of analysis, this two-way interaction of MC-Perseverance of Effort x MC-Consistency of Interest was significant for *Participant Perseverance of Effort*. [$F(1,85)=4.02$, $p=.05$] (see figure 1). Among the low MC-Consistency group, there was a significant difference between high and low maternal caregiver *perseverance of effort* on participant *perseverance of effort*, $F(1,45)=19.64$, $p<.01$. The findings were such that when offspring reported low MC-Consistency of interest and low MC-Perseverance of effort, participants also reported lower levels of *perseverance of effort* for themselves ($M=2.42$, $SD=.66$), as compared to their who reported high MC-Perseverance of Effort, who reported higher *participant perseverance of effort* for themselves ($M=3.57$, $SD=1.03$). Among participants who reported having caregivers who with low MC-Perseverance GRIT, participants who reported having caregivers who were also low on MC-Consistency GRIT reported marginally lower *participant Perseverance GRIT* for themselves ($M=2.41$, $SD=.66$), as compared to their counterparts who reported having caregivers with high MC-Consistency of Interest ($M=2.79$, $SD=.71$) [$F(1,47)=3.29$, $p=.08$]. Among the high MC-Consistency of interest group, there was no significant difference between high ($M=3.12$, $SD=.87$) or low ($M=2.79$, $SD=.71$) MC-Perseverance of effort on *participant perseverance of effort*, [$F(1,40)=1.24$, NS]. Similarly, among participants who reported having maternal caregivers with high MC-Perseverance of Effort, there were no significant

differences between high (M=3.11, SD=.87) and low (M=3.57, SD=1.03) MC-Consistency participants with respect to participant’s own perseverance of effort.

Figure 1. Interaction of MC-Consistency x MC-Perseverance on Participant’s Perseverance



At the multivariate level of analysis, there were also two main effects for MC-Perseverance [$F(2, 85)= 7.68, p<.01$], and MC-Consistency [$F(2, 85)=12.20, p<.01$] with respect to participant’s respective GRIT scores. There was also a marginal main effect of MC-Race on *participant’s consistency of interest* GRIT score. The univariate analyses are as follows:

MC-Perseverance was significant for *participant perseverance of effort*, [$F(1,85)=12.71, p<.01$], such that participants who reported high levels of MC-Perseverance, also reported high levels of *perseverance* for themselves (M=3.34,

SD=.96) compared to those participants who reported low levels of MC-Perseverance (M=2.60, SD=.67). MC-Consistency was significant for *participant consistency of interest*, [F(1, 88)=24.62, $p<.01$], such that participants who reported high MC-Consistency also reported higher levels of *participant consistency* (M=2.64, SD=.82) compared to participants who reported low MC-Consistency (M=1.60, SD=.67) whose *participant's consistency* was lower. Regarding the marginal main effect, MC-Race was significant for *participant consistency of interest*, [F(1,85)=5.34, $p<.05$] such that offspring of BSMC reported higher *consistency of interest* GRIT scores (M=2.36, SD=.92) as compared to their White counterparts (M=1.88, SD=.71).

Hypothesis 3: Among maternal caregivers with perceived high grit scores, their female offspring will report having higher grit scores compared to their male counterparts.

To test hypothesis three, a MANOVA was performed in which the independent factors were Participant Gender (Male vs. Female), MC-Perseverance of Effort (high vs. low) and MC- Consistency of Interest (high vs. low). The dependent variable was participant *grit*, defined by participant *perseverance of effort* and *consistency of interest*. No covariates were included because initial analysis determined all previously identified covariates, the number of times the maternal caregiver remarried, duration of single motherhood, maternal caregiver SES, participant SES, and custody arrangement, were not significant. For the multivariate test, no significant interactional effects were found between GRIT MC-Consistency of Interest, MC-Perseverance of Effort and Participant Gender, [F(2, 85)=.28, N.S., $\eta_p^2=.007$].

Hypothesis 4: Among BSMCs with perceived high grit scores, Black female offspring will report having higher grit scores compared to their Black male counterparts.

To test hypothesis 4, the dataset was sorted so that only the Black participants were utilized within the analysis. A 2 x 2 x 2 MANCOVA was performed in which the independent factors were MC-Perseverance (high vs. low), MC-Consistency of (high vs. low) and Participant Gender (male vs. female). The dependent variable was participant *grit*, as defined by participant's *perseverance of effort* and *consistency of interest*. Custody Arrangement served as a covariate based on preliminary analysis, and no other covariates were used for this analysis as they were determined not significant by the initial main analysis. The multivariate tests yielded no significant results due to insufficient power, influenced by the small sample size. Therefore, the GRIT subscales were combined into an overall *grit* score. A MANCOVA was performed in which the independent factors were MC-Race (Black vs. White), participant gender (Male vs. Female), and Maternal Caregiver Total GRIT. The dependent variable was *participant total grit*. Custody arrangement served as a covariate based on results from the preliminary analysis and no other covariates were used as they were determined to not be significant by the initial main analyses. There were no significant results found. Additionally, the dataset was sorted so that only the data from BSMCs with high were utilized within the analysis. Within this analysis, a 2 x 2 MANCOVA was performed in which the independent factor was Participant Gender (male vs. female). The dependent variable was participant *grit*, as defined by participant's *perseverance of effort* and *consistency of interest*. All covariates (the number of times the maternal caregiver remarried, duration of single motherhood, maternal caregiver SES, participant SES, and custody arrangement) were utilized within this analysis. The multivariate tests yielded no significant results due to insufficient power, influenced by the small sample size.

Hypothesis 5: Among BSMCs with perceived high grit scores, Black female offspring will report stronger academic achievement and greater psychological well-being than their Black male counterparts.

Due to insufficient power, influenced by a small sample size, 4-way multivariate analyses, with covariates, could not be completed to determine if there were any interactional effects as it relates to the grit subscales, *Consistency of Interest and Perseverance of Effort*, for maternal caregiver grit, participant gender, and MC-Race. Therefore, the GRIT subscales were combined into an overall *grit* score.

To test hypothesis five, the dataset was sorted so that only the Black participants were utilized within the analysis. A MANCOVA was performed in which the independent factors were MC-Race (Black vs. White), Participant Gender (Male vs. Female), and Maternal Caregiver total *grit*. The dependent variable was *participant GPA*. Maternal caregiver SES was used as a covariate. No other covariates were used as they were determined to not be significant by the initial main analyses. At the multivariate level of analysis, there was a significant main effect for MC-Race, $F(5, 85)=5.57, p<.01$. At the univariate level of analysis, the main effect of Maternal Caregiver of Race on participant GPA was significant, $F(1, 51)=13.09, p<.01$. Offspring raised by a White maternal caregiver reported a higher GPA ($M=3.57, SD=.31$) than offspring raised in a BSMCH ($M=2.97, SD=.56$). No significant interaction was found between maternal caregiver total *grit*, participant gender and MC-Race on participant's *academic achievement*, $F(1, 53)=.64, p=.43$.

To examine wellbeing, A MANOVA was also performed in which the independent factors were MC-Race (Black vs. White), participant gender (Male vs. Female), and maternal caregiver total *grit*. The dependent variable, psychological wellbeing, was defined by the IHPM subscales, *Flourishing, Mental/Physical Health, Quality of Life, and Productivity*. No covariates were used in this analysis because previous analyses determined they were not significant. At the multivariate

level of analysis, there was a marginal main effect for maternal caregiver total *grit*, $F(5,85)=2.08$, $p=.09$. At the univariate level of analysis, the main effect of maternal caregiver *grit* and the *flourishing* subscale was significant, $F(1,51)=5.94$, $p<.05$. Those with lower *grit* for maternal caregiver demonstrated higher *flourishing* scores ($M=3.81$ $SD=.75$) than those who reported higher *grit* scores for maternal caregiver ($M=3.11$, $SD=.82$). Additionally, the main effect of maternal caregiver *grit* and the *quality of life* subscale was significant, $F(1,51)=8.36$, $p<.01$. Participants who reported lower levels of overall *grit* for their maternal caregiver reported a high quality of life for themselves ($M=3.48$, $SD=.73$) when compared to those who reported high levels of overall *grit* for their maternal caregiver ($M=2.62$, $SD=.93$). There was not a significant interaction between MC-Race, participant gender, and maternal caregiver total *grit on psychological wellbeing*, $F(5,85)=.45$, $p=.05$.

Hypothesis 6: The relationship between maternal caregiver grit and female offspring academic achievement will be mediated by female offspring grit.

Regression analyses were used to investigate the hypothesis that female offspring *grit* will mediate the effect of maternal caregiver *grit* on female offspring *academic achievement*. In Step 1 of the mediation model, the regression of *academic achievement* (as defined by participant GPA) on maternal caregiver *grit*, ignoring the mediator was not significant, $b=-.01$, $t(57)=-.07$, $p=.95$. Step 2 showed that the regression of offspring *academic achievement* on the mediator, female offspring *grit*, was not significant, $b=-.15$, $t(57)=-1.20$, $p=.24$. Step 3 of the mediation process showed that the mediator, female offspring *grit*, controlling for maternal caregiver *grit*, was not significant, $b=-.22$, $t(57)=-1.34$, $p=.19$. However, due to the positive correlation between maternal caregiver *grit* and female participant *grit* ($r=.35$, $p<.01$), a Sobel test was conducted to test if there were any significant mediation effects and there was no evidence of a significant mediation ($z=1.19$, $p=.23$).

Additional regression analyses were used to investigate if offspring *grit* mediates the effect of maternal caregiver *grit* on offspring *psychological well-being*. In step 1 of the mediation model, the regression of *psychological well-being* on maternal caregiver *grit*, ignoring the mediator was significant, $b=-.19$, $t(80)=-2.37$, $p<.05$. Step 2 showed that the regression of offspring *psychological well-being* on the mediator, offspring *grit*, was significant, $b=-.33$, $t(80)=-3.53$, $p<.01$. Step 3 of the mediation process showed that the mediator, offspring *grit*, controlling for maternal caregiver *grit*, was significant, $b=-.28$, $t(80)=-2.81$, $p<.01$. Step 4 of the analyses revealed that, while controlling for the mediator, maternal caregiver *grit* was not a significant predictor of offspring *psychological well-being*, $b=-.10$, $t(80)=-1.23$, $p=.23$. A Sobel test was conducted and a significant mediation in the model was found ($z=2.17$, $p<.05$).

DISCUSSION

The results of the present study showed that there were significant racial differences in offspring's perception of their single maternal caregiver's grittiness. However, the findings were not congruent with the study's predictions. Findings indicated that White offspring perceived their maternal caregivers as having more passion and perseverance for long term goals than Black offspring. Specifically, White offspring perceived their maternal caregiver as demonstrating a stronger ability to loyally commit to a goal/interest without demonstrating a pattern of frequently changing goals. The literature suggests that although all single mothers encounter significant levels of adversity, BSMCs tend to encounter more adverse situations and have to overcome more barriers, such as low SES, ecological threats, unemployment, job displacement, and work interruption, (McLoyd, Jayaratne, Ceballo & Borquez, 1994; Johnson & Waldman, 1983), and limited access to resources (Hummer & Hamilton, 2010). For White single maternal caregivers, their risk of facing multiple adverse events is lower and when they encounter barriers they have a greater likelihood of overcoming them with sufficient resources. This likely limits offspring's exposure to the challenges and adversity leading to a more positive perception of their maternal caregiver's ability to loyally commit to a target goal. An heightened exposure to adversity would require the BSMC to frequently change her goals based on frequently changing priorities, and receive assistance from her offspring in an effort to address challenges that arise. Therefore, it is likely that offspring perceive their Black maternal caregiver as lacking consistency with one targeted goal, although their perceived inconsistency is a function of the adversarial events creating barriers to their success. The pattern of frequently changing priorities within the BCMCH contributes to a perception of frequently changing goals. This not dissimilar to the literature that supports that BSMCs balance multiple role

demands and must prioritize their time and availability to fulfill the expectations from each of their role demands (Quinn & Allen, 1989; McAdoo, 1995). Although the BSMC's overall goal may be the survival of her family, her fluctuation between achieving smaller goals, likely contributes to her offspring's limited perception of loyal commitment towards goals.

The findings supported the claim of transgenerational modeling effects of passion and perseverance for long term goals from the single maternal caregiver. Offspring who reported their maternal caregiver as having a strong inclination towards working hard to accomplish goals despite adversity, also reported a strong inclination for themselves. Further, offspring who reported their maternal caregiver as having a strong ability to loyally commit to a goal/interest without demonstrating a pattern of frequently changing it reported the same for themselves. Literature supports the theoretical conceptualization that parental modeling shapes offspring behaviors and attitudes (Wang & Sheikh-Khalil, 2014; Connell, Spencer & Aber, 2008). However, these findings suggest a transgenerational modeling effect of grit where offspring develop aspects of grittiness from their maternal caregiver. This further supports the literature that alludes to maternal caregivers having a strong influence on offspring behaviors and attitudes, more so than paternal caregivers (Bois, Sarrazin, Brustad, Trouilloud & Cury, 2005; Cunningham 2001).

However, findings also suggest that there may be additional contributing factors related to the development of one's passion and perseverance for long term goals, beyond transgenerational modeling effects. When offspring reported a weaker ability to loyally commit and persevere despite adversity, they perceived themselves as also having a weak inclination to continue to work hard to accomplish goals despite adversity. Those who reported low levels of maternal caregiver consistency and high maternal caregiver perseverance reported high levels of perseverance for themselves. This is notable because if offspring development of grit was solely

dependent on transgenerational modeling from the maternal caregiver, one would expect the offspring to also perceive themselves as demonstrating a weaker ability to loyally commit to goals. However, this was not the case in the present study. Further, Black offspring perceived themselves as having a stronger ability to loyally commit to a goal/interest than their maternal caregivers. This is interesting because it highlights a significant racial difference in which the Black offspring did not share a similar perception of their maternal caregiver's ability to loyally commit to a goal/interest, as mentioned previously, but perceived themselves as demonstrating this ability. This further suggests that there are likely other contributing factors related to the development of grit, which may be accounted for by kinship networks. Within single mother households, especially BSMCH, kinship networks are an integral part of the survival of the family and it is likely that members within that network influence the offspring's behaviors and attitudes, contributing to the perceptual differences of grit for the offspring.

The present study did not support gender differences among offspring's passion and perseverance for long term goals. The postulation that female offspring will be *grittier* than their male counterparts was false. Similarly, there was no evidence to support that Black female offspring are *grittier* than Black male offspring. Both of these findings held true even when the two subscales of GRIT were examined separately. Literature related to grit, does not suggest a gender difference among perseverance and passion for long term goals. It does however, suggest that grit may be demonstrated differently for each gender based on gender socialization practices, especially for Black offspring where they are socialized to be "*men of the house*" (Roy, Messina, Smith & Waters, 2014), and view athletics instead of academics as a more viable option for success (Johnson & Migliaccio, 2009). However, additional areas of demonstration of grit, especially as it pertains to males, was not examined within this study.

Offspring grit, regardless of gender, was shown to mediate the relationship between maternal caregiver grit and offspring academic achievement. Within this sample there were no significant findings related to offspring demonstrating stronger *academic achievement* and *psychological well-being* when they perceived their maternal caregiver as being *gritty*. Although White participants reported higher GPAs, it did not appear related to the perception of maternal caregiver grit. Further, when examining the different components of *psychological well-being*, offspring who perceived their maternal caregiver as being less gritty, reported stronger positive feelings about themselves and their enjoyment of work and other activities that consist within their daily life.

Study Limitations and Future Research

There are several potential limitations of the present study. First, there were several limitations that potentially explain some of the non-significant findings. The present study was part of a major study that consisted of several measures making it a rather lengthy and time consuming survey to complete. This likely contributed to the attrition rate of participants and negatively impacted the data as some participants did not answer all items relevant to this study. Future studies should collect data independently as the survey for this specific study is relatively small and will likely have more complete participation.

The recruitment strategies and incentives differed depending on whether the participant attending the host university. Those attending the host university had more incentive to participate (extra credit and gift card raffle) compared to those who were recruited by social media (only gift card raffle). Future studies should ensure that incentives are similar between groups to limit sampling bias. Also, the sample size was relatively small, which negatively impacted statistical analyses due to insufficient power. The sample appeared to consist of mostly offspring in college,

which is not a representative sample of the overall population. Future studies should allow for more time to recruit participation and try to recruit a similar number of participants attending university and not attending university. Additionally, participants who were not currently enrolled in school, were not provided an opportunity to report their GPA in high school or previous attendance in college. This eliminated a significant portion of data from those who may have already completed school, dropped out or sought employment after high school. In future studies, GPA of any schooling, including high school should be obtained to better discern the effect of grit on academic achievement. Furthermore, questions related to the title of one's employment and descriptions of their duties were not included making it difficult to verify the identified occupational status. It may be beneficial to add those questions in future studies to obtain collateral information.

Additionally, the sampling method limited comparability between the Black and White sample groups. Comparisons could not be made because the racial sample groups (Black vs. White) were not equally representative of their respective populations. Specifically, the Black sample consisted mostly of individuals attending college, and having a higher SES, which is not representative of the Black population. Although, demographic variables, such as SES, were utilized to help improve the comparability, it is not known if the demographic variables included in this study actually contribute to the difference between the racial sample groups. Therefore, the inferences made based racial differences are limited.

Due to this study utilizing archival data, information related to alternate domains in which BSMC male offspring can potentially demonstrate grit could be solicited. These domains include: athletics, protecting the family, and financially providing for the family, all of which the literature alludes to being aspects of success that BSMC male offspring are socialized to obtain. Therefore, this lack of information may impede on obtaining a comprehensive picture of the BSMC male

offspring's realistic demonstration of *grit*. Future studies should include additional areas that grit could potentially be demonstrated beyond academic achievement and psychological well-being.

Also, participants provided subjective scores based on a retrospective perception of their single maternal caregiver's *grit*, and no collateral data was obtained. This has the potential to be misconstrued by time, personal feelings and opinions of the maternal caregiver at time of completion, and discrepant memories. Further, the participant's evaluation may be disparate from how the single maternal caregiver perceives her own experiences. Therefore, it will be unclear if the data obtained is an accurate reflection of the single maternal caregiver's behaviors during the offspring's childhood. It may be interesting to include the participation of the maternal caregiver allowing them to provide their own perception of grittiness. It may also be interesting to have both the offspring and maternal caregiver complete an informant version about each other's grittiness and utilize comparison data within the maternal caregiver-offspring dyad.

Further, due to the focus of the study, only data regarding the participant's perception of the single maternal caregiver's *grit* was obtained. However, it is likely that the participant may have been influenced by other members within the family's kinship network. Nonetheless, information regarding individuals within the family's kinship network was not obtained. As such, because data concerning other influential members within the participant's upbringing was not collected, it will be unclear how much of the current study's findings will be a function of other individual's level of *grit* within the kinship network.

There are many avenues for future directions in the research. First, after securing a larger sample size and a better representation of the single maternal caregiver offspring population, many of the analyses of this study will be repeated and with sufficient power providing significant results. Further, instead of solely

examining differences between overall grit and psychological well-being, the subscales of each will be included in the hypothesis allowing for more careful examination. Additionally, information related to members within the offspring's kinship network will be gathered, in an effort to investigate their influence on the offspring's development of grit and positive outcomes.

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APPENDIX

APPENDIX A: Informed Consent Form

We are interested in examining the effects of your family structure and parenting behaviors on your overall well-being, achievement, and self-esteem. As part of your participation in this study you may find some therapeutic value in considering certain aspects of your life. Your participation will not subject you to any physical pain or risk, but because some of the interview questions seek to solicit some personal information, no identifying information such as your name will be asked.

Initially, you will be asked to complete a preliminary screening survey that asks a series of questions to determine your eligibility for participating in this study. If you meet criteria, you will be prompted to a series of surveys regarding your experiences as a child, as well as an adult. Certain surveys may repeat to determine your perception of your parents'/caregivers' parenting behaviors and attitude toward accomplishing goals, and your current psychological well-being, your current self-esteem, as well as your current relationships. There will also be questions regarding past and current relationship conflict. These surveys will take approximately 60 minutes to 90 minutes to complete. If for any reason you are uncomfortable completing the survey, you are free to stop at any time. If you have any concerns please feel free to contact the researchers, Damla Til Ogut, M.S., Keara Washington, M.S., and Felipa Chavez, Ph.D. We assure you that any reports about this research will contain only data of an anonymous or statistical nature.

Upon completion of the survey, you may elect to enter a raffle for an Amazon gift-card. If you choose to participate in the raffle, you will need to send your e-mail address as directed at the end of the survey. You will receive a codeword upon completion of your survey. Please include this codeword when you email your entrance into the raffle for the gift-card. Your e-mail address will in no way be linked to your responses to the survey questions.

Again, any questions you have regarding this research may be directed to the researchers, or the chair of the International Review Board (IRB), Lisa Steelman, Ph.D. Please find all contact information below:

Primary Investigator: Felipa Chavez, Ph.D., chavezf@my.fit.edu, T: 321.674.8104. Address: 150 West University Blvd., Melbourne, FL 32901

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Continuing with this survey indicates that you agree to participate in this research and that:

1. You have read and understand the information provided above.
2. You understand that participation is voluntary and that refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled; and,
3. You understand that you are free to discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled.
4. You are 18 years of age or older.

I have read the preceding information and understand its meaning. By choosing "YES": I am agreeing to proceed with the survey and participate in the study. However, by choosing "NO": I am signifying that I do not want to proceed with the survey nor participate in the study. * Thank you again for your participation in this survey and we hope that you will consider participating in future surveys.

APPENDIX B: Demographic Screening Questions

Please fill out the following questions about yourself:

1. Please identify your gender identity.
 - a. Male
 - b. Female
 - c. Transgender Male to Female
 - d. Transgender Female to Male
 - e. Self-Identify _____

2. Please indicate your age in years. _____

3. What is your race/ethnicity?
 - a) White/Caucasian White
 - b) Black/African American Black
 - c) Hispanic
 - d) Latino
 - e) Asian
 - f) Pacific Islander
 - g) Native American
 - h) Biracial
 - i) Other Specify (_____)

5. What is your current city and state?

6. What is your current relationship status?

- a) Single
- b) Cohabiting
- c) Married
- d) Divorced
- e) Separated
- f) Widowed

6. Please identify the occupational description that most applies to you.

- a) Major executives of large companies, major professionals, and proprietors
- b) Lesser professionals and proprietors, and business managers
- c) Administrative personnel, owners of small business and minor professionals
- d) Clerical and sales workers, and technicians
- e) Skilled trades
- f) Machine operators and semiskilled workers
- g) Unskilled employees
- h) Homemaker
- i) Other: _____

7. Please identify your education level?

- a) Professionals (Master's degree, doctorate or professional degree)
- b) College graduate
- c) 1-3 years college or business school
- d) High school graduate
- e) 10-11 years of schooling
- f) 7-9 years of schooling
- g) Under 7 years of schooling

8. How many colleges did you attend?

- a) 0
- b) 1
- c) 2
- d) 3
- e) 4
- f) 5 or more

9. What is your major? _____

10. If you are still in school, what is your current GPA? _____

11. What is your status in school?

- a) Full-Time
- b) Part-Time

12. Are you intending on pursuing an advanced degree?

- a) Yes
- b) No
- c) Not sure

Questions Related to Family Structure

Please fill out the following information with regard to your parents.

13. What is your **maternal caregiver's** race/ethnicity?
- a) White/Caucasian White
 - b) Black/African American Black
 - c) Hispanic
 - d) Latino
 - e) Asian
 - f) Pacific Islander
 - g) Native American
 - h) Biracial
 - i) Other Specify (_____)
14. What is your **maternal caregiver's** education level?
- a) Professionals (Master's degree, doctorate or professional degree)
 - b) College graduate
 - c) 1-3 years college or business school
 - d) High school graduate
 - e) 10-11 years of schooling
 - f) 7-9 years of schooling
 - g) Under 7 years of schooling

15. Please identify the occupational description that most applies to your **maternal caregiver**.

- a) Major executives of large companies, major professionals, and proprietors
- b) Lesser professionals and proprietors, and business managers
- c) Administrative personnel, owners of small business and minor professionals
- d) Clerical and sales workers, and technicians
- e) Skilled trades
- f) Machine operators and semiskilled workers
- g) Unskilled employees
- h) Homemaker
- i) Other: _____

16. What is your **paternal caregiver's** race/ethnicity?

- a) White/Caucasian White
- b) Black/African American Black
- c) Hispanic
- d) Latino
- e) Asian
- f) Pacific Islander
- g) Native American
- h) Biracial
- i) Other Specify (_____)

17. What is your **paternal caregiver's** education level?

- a) Professionals (Master's degree, doctorate or professional degree)
- b) College graduate
- c) 1-3 years college or business school
- d) High school graduate
- e) 10-11 years of schooling
- f) 7-9 years of schooling
- g) Under 7 years of schooling

18. Please identify the occupational description that most applies to your **paternal caregiver**.

- a) Major executives of large companies, major professionals, and proprietors
- b) Lesser professionals and proprietors, and business managers
- c) Administrative personnel, owners of small business and minor professionals
- d) Clerical and sales workers, and technicians
- e) Skilled trades
- f) Machine operators and semiskilled workers
- g) Unskilled employees
- h) Homemaker
- i) Other: _____

19. My parents are:

*If you were adopted, please report the marital status of your adoptive parents.

- a) Married (to each other)
- b) Never been married, but lived together
- c) Never been married, and never lived together
- d) Separated
- e) Divorced

20. Are either of your parents deceased?
- a) Yes
 - b) No
21. Which parent?
- a) Maternal Caregiver
 - b) Paternal Caregiver
22. How old were you when it happened?
23. Who was your primary caregiver during childhood?
- a) Both Parents
 - b) Maternal Caregiver
 - c) Paternal Caregiver
24. Are your parents separated or divorced?
- a) Yes
 - b) No
25. How old were you when your parents **separated**?
26. With whom did you live most of the time after the **separation**?
- a) Maternal caregiver
 - b) Paternal caregiver
 - c) On average it was 50/50 time-sharing split between both caregivers
27. Was the separation followed by a **divorce**?
- a) Yes
 - b) No

28. How old were you when your parents had a **divorce**?
29. With whom did you live most of the time after the **divorce**?
- a) Maternal caregiver
 - b) Paternal caregiver
 - c) On average it was 50/50 time-sharing split between both caregivers
30. What was your parents' custody arrangement?
- a) *Mother* had primary physical custody
 - b) *Father* had primary physical custody
 - c) *Shared* physical custody (equal time with both parents)
 - d) *Another family member* had primary physical custody
 - e) *Family Friend* had primary physical custody
 - f) I don't know
31. How often did you spend time with your non-custodial parent (the parent whom you did not live with most of the time)?
- a) Never
 - b) Almost never
 - c) On holidays only
 - d) About once a month
 - e) About twice a month
 - f) Every other weekend
 - g) Every weekend
 - h) A couple times per week
 - i) I spend about equal time with both parents

32. Did your **mother** remarry?

a) Yes

b) No

33. How old were you when she remarried?

34. How many times?

35. Is she currently married?

a) Yes

b) No

36. Did your father remarry?

a) Yes

b) No

37. How old were you when he remarried?

38. How many times?

39. Is he currently married?

a) Yes

b) No

40. Please rate the degree of difficulty in *negotiating the logistics* of your parents' separation:

1 2 3 4 5
 Very Difficult Difficult Neither Difficult/Nor Easy Easy Very easy

41. Based on your own opinion, rate *your overall adjustment* to your parents' separation:

1	2	3	4	5
Very Poor Adjustment	Poor Adjustment	Neutral	Good Adjustment	Very Good Adjustment
<u>Very Difficult</u> time with the fact that my parents are separated		Neither difficult time neither happy with the fact that my parents are separated		<u>Very happy</u> with the fact that my parents are separated

42. What was the most significant negative aspect of your parents' separation for you?
 (What was the worst part about it for you?)

- a) Frequent Conflict Between Parents
- b) Difficulties Regarding Visitation Schedules
- c) Financial Difficulties Following Separation
- d) Frequent Residential Changes Following Separation
- e) Frequent Change of Schools Following Separation
- f) Disruptions in the Social Relationships Following Separation
- g) Difficulties Related to Remarriage of the Parent(s)
- h) Personal Difficulties Parent(s) Experienced Following Separation

*****If you were raised in a single mother household before the age of 18, please fill out the following questions about your maternal caregiver:**

43. How long were you raised in a single mother household? ____years ____months

44. While your **parents were together**, was your maternal caregiver a stay at home caregiver?

- Yes
- No

45. Please indicate for how long your maternal caregiver was a stay at home caregiver?
___Year ___ Months

46. While your **parents were separated**, was your maternal caregiver a stay at home caregiver?

- a) Yes
- b) No

47. Please indicate for how long your maternal caregiver was a stay at home caregiver?___Year ___ Months

APPENDIX C: Grit Scale-Maternal Caregiver

Directions for taking the Grit Scale: Here are a number of statements that may or may not apply to your maternal caregiver during your childhood. For the most accurate score, when responding, think of how she compared 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. My mother overcame setbacks to conquer an important challenge.
 - a. Very much like her
 - b. Mostly like her
 - c. Somewhat like her
 - d. Not much like her
 - e. Not like her at all
2. New ideas and projects sometimes distracted my mother from previous ones.
 - a. Very much like her
 - b. Mostly like her
 - c. Somewhat like her
 - d. Not much like her
 - e. Not like her at all
3. My mother's interests changed from year to year.
 - a. Very much like her
 - b. Mostly like her
 - c. Somewhat like her
 - d. Not much like her
 - e. Not like her at all

4. Setbacks didn't discourage my mother.
 - a. Very much like her
 - b. Mostly like her
 - c. Somewhat like her
 - d. Not much like her
 - e. Not like her at all
5. My mother has been observed with a certain idea or project for a short time but later lost interest.
 - a. Very much like her
 - b. Mostly like her
 - c. Somewhat like her
 - d. Not much like her
 - e. Not like her at all
6. My mother was a hard worker.
 - a. Very much like her
 - b. Mostly like her
 - c. Somewhat like her
 - d. Not much like her
 - e. Not like her at all
7. My mother often set a goal but later choose to pursue a different one.
 - a. Very much like her
 - b. Mostly like her
 - c. Somewhat like her
 - d. Not much like her
 - e. Not like her at all

8. My mother had difficulty maintaining her focus on projects that took more than a few months to complete.

- a. Very much like her
- b. Mostly like her
- c. Somewhat like her
- d. Not much like her
- e. Not like her at all

9. My mother finished whatever she began.

- a. Very much like her
- b. Mostly like her
- c. Somewhat like her
- d. Not much like her
- e. Not like her at all

10. My mother achieved a goal that took years of work.

- a. Very much like her
- b. Mostly like her
- c. Somewhat like her
- d. Not much like her
- e. Not like her at all

11. My mother became interested in new pursuits every few months.

- a. Very much like her
- b. Mostly like her
- c. Somewhat like her
- d. Not much like her
- e. Not like her at all

12. My mother was diligent.
- a. Very much like her
 - b. Mostly like her
 - c. Somewhat like her
 - d. Not much like her
 - e. Not like her at all

APPENDIX D: GRIT-Respondent

Please respond to the following 12 items. 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. I have overcome setbacks to conquer an important challenge.
 - a. Very much like me
 - b. Mostly like me
 - c. Somewhat like me
 - d. Not much like me
 - e. Not like me at all
2. New ideas and projects sometimes distract me from previous ones.
 - a. Very much like me
 - b. Mostly like me
 - c. Somewhat like me
 - d. Not much like me
 - e. Not like me at all
3. My interests change from year to year.
 - a. Very much like me
 - b. Mostly like me
 - c. Somewhat like me
 - d. Not much like me
 - e. Not like me at all

4. Setbacks don't discourage me.

- a. Very much like me
- b. Mostly like me
- c. Somewhat like me
- d. Not much like me
- e. Not like me at all

5. I have been observed with a certain idea or project for a short time but later lost interest.

- a. Very much like me
- b. Mostly like me
- c. Somewhat like me
- d. Not much like me
- e. Not like me at all

6. I am a hard worker.

- a. Very much like me
- b. Mostly like me
- c. Somewhat like me
- d. Not much like me
- e. Not like me at all

7. I often set a goal but later choose to pursue a different one.

- a. Very much like me
- b. Mostly like me
- c. Somewhat like me
- d. Not much like me
- e. Not like me at all

8. I have difficulty maintaining my focus on projects that take more than a few months to complete.

- a. Very much like me
- b. Mostly like me
- c. Somewhat like me
- d. Not much like me
- e. Not like me at all

9. I finish whatever I begin.

- a. Very much like me
- b. Mostly like me
- c. Somewhat like me
- d. Not much like me
- e. Not like me at all

10. I have achieved a goal that took years of work.

- a. Very much like me
- b. Mostly like me
- c. Somewhat like me
- d. Not much like me
- e. Not like me at all

11. I become interest in new pursuits every few months.

- a. Very much like me
- b. Mostly like me
- c. Somewhat like me
- d. Not much like me
- e. Not like me at all

12. I am diligent.

- a. Very much like me
- b. Mostly like me
- c. Somewhat like me
- d. Not much like me
- e. Not like me at all

**APPENDIX E: Institute for Health and Productivity Management
(IHPM) Well-being Questionnaire**

How often in the last two weeks did you....	0 Never	1 Rarely	2 Sometimes	3 Often	4 Very Often
1. Feel good/positive about yourself?	0	1	2	3	4
2. Enjoy your leisure time?	0	1	2	3	4
3. Have a good energy level?	0	1	2	3	4
4. Enjoy spending time with family or friends?	0	1	2	3	4
5. Enjoy your work and other activities of daily life?	0	1	2	3	4
6. Have the right amount of sleep?	0	1	2	3	4

7. Have physical pain or other health problems?	0	1	2	3	4
8. Worry about a lot of things?	0	1	2	3	4
9. Feel unhappy or sad?	0	1	2	3	4
10. Feel nervous or anxious?	0	1	2	3	4
11. Cut back on activities due to physical or emotional health problems?	0	1	2	3	4
12. Feel hopeless about the future?	0	1	2	3	4
13. Feel lonely?	0	1	2	3	4
14. Worry about money?	0	1	2	3	4
15. Feel fulfilled in life?	0	1	2	3	4

16. Feel happy with your living situation?	0	1	2	3	4
17. Feel fortunate about your social relationships?	0	1	2	3	4
18. Feel unmotivated to do anything?	0	1	2	3	4
19. Feel unproductive at work or other daily activities?	0	1	2	3	4
20. Have a hard time paying attention?	0	1	2	3	4
21. Accomplish most of what you wanted to do?	0	1	2	3	4
22. Have problems at work, school or home due use of drugs or alcohol?	0	1	2	3	4

***Items 7, 8, 9, 10, 11, 12, 13, 14, 18, 19, 20, 22 are reverse-scored.**

APPENDIX F: Debriefing Form

The goal of the proposed study is to investigate the impact of various childhood parenting strategies and attitudes on one's psychological well-being and self-esteem in adulthood.

If you are interested in entering the raffle for the \$25 Amazon gift certificate, please email your name and email address to **relationshipsurvey@gmail.com** and include the code word "**RELATION**". In doing so, you will be automatically entered into the raffle. Your email address will not be associated with your answers in the survey, and no other information will be required from you if you win.

Any questions you have regarding this research may be directed to the researchers or the chair of the International Review Board (IRB), Dr. Lisa Steelman. Please find the necessary contact information below. Thank you for your participation in this research study. If you wish, a summary of the results will be provided to you, at a later time, by contacting the researchers at the following address.

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APPENDIX G: Hollingshead Index
(Hollingshead, 1975)

Please circle the description within each category that most applies to the head of your household when you were growing up.

OCCUPATIONAL SCALE

1. Major Executives of large concerns, major professionals, and proprietors.
2. Lesser professionals and proprietors, and business managers.
3. Administrative personnel, owners of small business and minor professionals.
4. Clerical and sales workers, and technicians.
5. Skilled trades.
6. Machine operators and semiskilled workers.
7. Unskilled employees.

EDUCATIONAL SCALE

1. Professionals (Master's degree, doctorate or professional degree).
2. College graduates.
3. 1-3 years college or business school.
4. High school graduates.
5. 10-11 years of schooling.
6. 7-9 years of schooling.
7. Under 7 years of schooling.

The following formula is utilized for determining social class: (Occupation Score X 7) + (Education Score X 4). Scores ranging 11- 17 is considered Upper Class; 18-31, Upper-Middle Class; 32-47, Middle Class; 48-63, Lower Middle Class; and 64-77, Lower Class (Stewart & Schwartz, 2003).