BICULTURAL APPALACHIAN FEMALES: THE MEDIATING EFFECT OF PERCEIVED STIGMA ON HEALTH OUTCOMES

by

Victoria L. Evans-Fulton

Liberty University

A Dissertation Presented in Partial Fulfilment

of the Requirements for the Degree

Doctor of Philosophy

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ABSTRACT

Appalachia has been the focus of ongoing curiosity and ascribed disdain in Euro-centric American history. An amalgamation of cultures found a home in the Appalachian Mountains, blending to create a unique collectivistic culture still visible today. However, this culture has often been misconstrued as unhealthy or undesirable at best and, by reductionistic intentions, relegated to a culture of poverty. Within this system, Appalachian females have faced the burden of the intersectionality of their identities, given the acculturation expectations and Appalachian identity stigma imposed by the dominant Euro-North American culture. As indicated in scholarly literature, despite chronic marginalization and systemic oppression, a silent minority still retains the core elements of its heritage culture. However, it remains hidden by a bicultural approach that bridges the gap between identifying as Appalachian *and* American. This study hypothesized that perceived stigma directly impacts the overall physical and mental health outcomes of women who identify as culturally Appalachian. The degree of bicultural expression was assumed to affect the strength of the relationship between perceived stigma and health outcomes.

Keywords: Appalachia, bicultural, stigma, mental health, multicultural

Dedication

This dissertation is dedicated to Appalachia, with my greatest admiration and love. Thank you for growing me into the person I am today. My heart will always be rooted in those majestic mountains, drenched in the stories of my people, and in awe of a culture permeated with a beautiful wealth of resiliency.

Acknowledgments

As I think about the journey that has led me to this moment, I realize that I am here because of the tremendous outpouring of support and love I have around me.

First, I want to give a special thanks to my dissertation chair, Dr. Volk. Since the first semester in the PhD program, in my very first class, he gave me space and intentional mentorship to help me find my voice and develop my passions. Over the years, his reassurance helped me regroup and continue, even when I was not sure how I would be able to stay on task. I owe a special thanks to my entire committee for helping me cross the finish line to graduation. As well as acknowledgment for my other professors and cohort for all their love.

Also, an enormous thank you to my family: my husband (David), our precious newborn son (Charlie), my parents (Stacy and Patricia), my sisters (Jessica, Hannah, and Kara), my brother-in-law (Seth), and my beautiful niece (Ellie). My parents were determined to give us all the opportunities they could have only dreamt about when they were children. I stand on the shoulders of generations who fought to allow me to thrive. As the first in my family to obtain a PhD, my family may not have been able to prepare me for what to expect, but they walked with me every step. I also owe special thanks to my husband, David, for his steady encouragement and a never-ending supply of hugs as I poured my time and energy into this dissertation process. I love you all more than I could ever say!

Finally, I want to acknowledge the mysterious ways faith has guided me. If I had to share every moment my faith became tangible throughout this program (and the road

that brought me here), the stories would be longer than the dissertation itself. However, the overarching theme is that there was a plan for me from the beginning. I belong here.

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List of Abbreviations

Bicultural Identity Integration Scale, Version 2 (BIIS-2)

Perceived Discrimination Scale (PDS)

36-Item Short Form Survey (SF-36)

Socioeconomic status (SES)

Institutional Review Board (IRB)

CHAPTER 1: INTRODUCTION TO THE STUDY

Introduction

Appalachia [Appa-latch-uh] is geographically defined as the region of the United States that forms the country's oldest mountain range, extending from Alabama to New York (Elder et al., 2021). Snaking across sections of 13 states, Appalachia cuts an expansive path through the Eastern Seaboard (Elder et al., 2021). Typically, the region is classified into three subregions: Northern (New York, Ohio, Pennsylvania, Maryland), Central (Kentucky, West Virginia, Virginia, Tennessee), and Southern (North Carolina, South Carolina, Alabama, Georgia, Mississippi). As an exception, the entire state of West Virginia is encompassed within geographical Appalachia, while only the Appalachian-designated counties from the other states are categorized as a part of these subregions. In total, 407 designated counties compose Appalachia, as their borders fall within the mountains and foothills (Appalachian Regional Development Act, 1965). The geographic boundaries of Appalachia also correlate strongly with the cultural identities of the Appalachian people who call these mountains home (Tang & Russ, 2007). Figure 1 is a map of Appalachia.

The Appalachian population is often referred to as an invisible minority since they meet the criteria for a cultural group; however, no visible external markers distinguish them as a unique population within the United States (Knight et al., 2003; Ludke et al., 2010; Tang & Russ, 2007). To be Appalachian is also to be American. Still, only 8% of Americans live within the Appalachian region and fewer individuals identify (self-report) as culturally Appalachian (Elder et al., 2021; Ludke et al., 2010).

Figure 1

Map of Appalachia

Note. From "Appalachian Regional Commission (ARC) Power Initiative," n.d. (https://dced.pa.gov/programs-funding/appalachian-regional-commission-arc/). Copyright 2023 by the Commonwealth of Pennsylvania.

Between the three regions of Appalachia, there are varying levels of within-group differences; however, there are distinct cultural hallmarks that encompass the entirety of Appalachia. These cultural markers appear throughout Appalachia's rural and urban settings and remain evident for multiple generations in families who migrate out of Appalachia (Berg, 1994; Obermiller & Howe, 2002). In terms of both diversity and sameness, the cultural components of Appalachia represent a melting pot of influence

that includes the Scots-Irish, Polish, African, Indigenous Nations, and other blends of immigrant peoples (Duggan, 2002; Mathews, 1996; Prajznerova, 2003; Turner & Cabell, 1985).

Diverse paths led each of these groups to Appalachia, beginning with the indigenous people who called Appalachia home for generations before European arrival (Berg, 1994; Mathews, 1996; Turner & Cabell, 1985). Next, European immigrants (Scots-Irish, Polish) moved to the region seeking a new home without discrimination from other European groups; these people were joined by African and African Americans who were brought into the region to work in industry before and after the Civil War (Berg, 1994; Mathews, 1996; Turner & Cabell, 1985). Appalachia's history is not one of a romanticized utopia, as groups did not constantly interact in harmony; yet these groups were interwoven by an environment that brought both beauty and safety in varying degrees as well as contrasting isolation and hardship (Hay, 2003; McGonigle, 2005). Nevertheless, it is essential to note that a distinct culture grew out of this intermixing of ethnic and racial groups that cannot be reduced to a common denominator of poverty or low socioeconomic status (SES); instead indicating that there is a deeper foundation of shared values (Berg, 1994; Payne, 1996). The lack of distinction between Appalachian culture and a culture of poverty diminishes the complexity of the shared experience that arises from diverse people creating a mutual home.

Like the Hmong ("free people") cultural group who originated in the remote China highlands, Appalachians developed a shared history and transgenerational traditions in their environment with limited non-Appalachian influence (Berg, 1994; Vang & Flores, 1999). The mountain communities were not easily accessible for

industrial transportation to reach, leading to an inherent need to be self-sufficient and depending on “kinfolk” for survival (Salyers & Ritchie, 2006). The community’s collectivistic attitudes likely arose from a blend of cultural heritage (clans, tribes, identity-based resiliency) and the necessity of creating community-focused survival systems (Berg, 1994; Hay, 2003).

Beyond the internal ecosystem that formed in early Appalachia, access to outside services was limited due to the lack of usable roadways, transportation, and feasibility of travel, as well as limited access to communication technology (Berg, 1994; Burton et al., 2013). Furthermore, money was not standard or even necessary in many communities. Paid employment status did not always indicate the level of access to family resources as the nonmonetary trade of goods meant assurance of food and herbal medicine (Berg, 1994; Crowe-Carraco, 1978).

Within the developed cultural ecosystem, shared values emerged from collective life experiences that were rooted in survival-based necessity and a search for shared meaning. For many Appalachians, sustainable agriculture, farming, and trade for essential goods happened in communities, and the broader country did not play a direct role in daily life (Berg, 1994). Appalachians’ collectivistic mindset enabled them to flourish in harsh terrains and with limited outside support. This system amplified the reliance on family, community, and other community-oriented structures such as churches or local businesses, which is observable throughout Appalachia (Berg, 1994).

Appalachia also has a long history of negative experiences with non-Appalachians. Many of the heritage-contributing groups that formed the melting pot brought these experiences into Appalachia with them (Hay, 2003; McGonigle, 2005). A

baseline of automatic distrust and suspicion with regard to identified outsiders appears to have emerged from the impact of collective trauma and a myriad of dehumanizing situations (Berg, 1994; Michael Maloney and Associates, 2003; Wolff et al., 2016). Trust is a foundational value of Appalachia, and loyalty and personal connection in the community run deep. Social hierarchies are not traditional when compared to outside standards, often resulting in more equality and mutual trust among Appalachian community members (Michael Maloney & Associates, 2003). Michael Maloney and Associates (2003) argued that Appalachia is more concerned with the character of a person than what a person may offer in terms of positions, titles, or degrees. In other words, status is defined more by the person's place in the community than by any other markers of Euro-American status (Michael Maloney & Associates, 2003).

Beyond the many values that underpin Appalachian life, culture also shows up in music, dance, cuisine, spiritual beliefs, practices, and language. Traditional Appalachian folk music, often referred to as the songs of the mountains, is a unique music style that was born in a cultural blend of European and African traditions and specific instrument usage (Hay, 2003; Rosenberg, 1985). Folk music directly influenced the development of bluegrass music, and Appalachia—specifically, Bristol, Tennessee/Virginia—is likewise known as the birthplace of country music (Rosenberg, 1985). Dance styles of flat footing, clogging, and square dancing are also historical traditions born in the unique blend of cultures that is Appalachian culture (Schroeder, 2020). This cultural blend also gives rise to various language dialects and simple words or phrases that comprise the distinct "Appalachian English" or mountain talk (Slocum, 2019, p. 285).

Specific ways of cooking, the significance of meals, and shared community and family experiences stand out as key to understanding the cultural hallmarks of Appalachia. Ramp festivals, natural foliage, and cast-iron cooking are foundational to traditional Appalachian cuisine. However, as nuanced as these traditions are across Appalachia, core elements of cooking practices and expectations of shared meals tie them together. The same is true of religion or spirituality in Appalachia. Mathews (1996) highlighted themes across religious denominations that include independence from the organization (rejection of establishment or hierarchy), specific mindsets for definitions of faith/membership, and a tendency to seek leadership (male or female) from individuals who are foundational to entire communities rather than classically educated ministers. Unique superstitions also blend seamlessly with more traditional religious practices in these groups (Stewart, 1973).

Background of the Problem

Culture is demonstrated in the values of a group, along with the way that the group lives, interacts socially, and expresses its voices. Yet, cultural identification dives deeper than identifiable behaviors and norms, extending into internalized value systems and self-identity (Berry, 2017). Cultural identity is fundamental to individuals' developed lenses by which they see the world and themselves. For Appalachians, this narrative is limited in current research or broader scholarship. In most scholarship, Appalachia is framed from a classical Euro-North American worldview. This gap should be of particular interest to researchers as more needs to be known about how Appalachians reconcile their Appalachian culture with the broader Euro-North American perspective

that dominates the United States. The intersection of identity (Appalachian *and* American), or bicultural identity, adds complexity to the conversation.

Appalachia is undoubtedly one of many groups to experience a complicated mix of cultures in the United States. For each person who shares the meeting of two or more cultures, there begins a process of organization that allows that person to adjust to their surrounding communities and larger nation. Berry's (2017) research developed an intricate understanding of acculturation. Within the scope of this research, acculturation is the natural, adaptive organization of more than one culture, as external cultures are superimposed upon an individual's internalized base culture (Berry, 2017). Berry developed a scale to describe the degrees of acculturation: assimilation (rejecting the heritage culture), separation (rejecting the superimposed culture), marginalization (rejecting both the heritage and the superimposed culture), and biculturalism (adapting to keep elements of the heritage culture while accepting aspects of the superimposed culture as well).

It is of note that acculturation's influence has yet to be consistent throughout Appalachian history. Appalachia has had limited interactions with the broader United States since the beginning of Euro-centric American history. This interaction occurred in Appalachia (outsiders entering the region) and accompanies the trend of limited individual migration out of the region. However, World War II represented a turning point for Appalachia, as many Appalachian men served in the war while others moved out of the region for the first time to work in industry jobs as part of the war effort (Hosley, 2004; MacDonald, 1972; Obermiller & Howe, 2002). Beyond the migration patterns that led some to relocate outside of Appalachia permanently, returning

Appalachians brought stories of a broader world, adventure, and globalized knowledge (MacDonald, 1972). As Appalachia began to integrate more with the broader United States, culture and the acculturation process naturally became a more notable point of conversation.

The acculturation process was painful and came with a high personal cost for many Appalachian people. Bailey (1997) referenced this phenomenon as "the price of assimilation" (p. 231). Upon leaving their communities, Appalachian migrants experienced discrimination and interpersonal hostility from their new neighbors, peers, and coworkers (Votaw, 1958). The media-driven perception of an undesirable Appalachia created a crossroads for many individuals, with the choice of success requiring suppression of their own Appalachian culture, deeming it shameful and undesirable (Bailey, 1997). For many individuals, there was an understanding that they would have to "escape the shadow of their own group [Appalachia]" and remove themselves from being identified as Appalachian to achieve successful integration (Bailey, 1997, p. 239). Carl, one of the participants in Bailey's reflexive case study, stated that he refused to share Appalachia with his children (who were born outside of the region) because "those who could get out, got out, and there's no one left but trash" (p. 240).

The harsh viewpoint Carl adopted can be understood by looking at his experience as a migrant worker. Accompanied by his young wife in Chicago, Carl found that Chicago had hierarchical structures in employment that often related to ethnicity or culture, of which he did not fit into a traditional category (Bailey,1997)/ Separated from all groups and designated as the lone hillbilly, Carol reported that "hillbillies didn't know what they were, that's one of the reasons folks hated them so much" (Bailey, 1997, p.

236). Carl reported that he was called derogatory names and felt pressure to defend himself and differentiate himself from the other Appalachians via intentional intragroup distinction (Bailey, 1997).

Regarding the acculturation process, non-Appalachian perception (stigma) plays a role in how many Appalachians reconcile the divide. Appalachian identity and culture retain an overwhelmingly negative view from the broader Euro-North American perspective, resulting in negative connotations for many individuals in and outside of Appalachia (Knight et al., 2003). The same derogatory terms (i.e., hillbilly, redneck) that greeted many migrant families in the 1950s are still socially accepted and widely used terms today. The impact of this lack of growth, coupled with increasing globalization, creates more acculturation pressure for Appalachian-born Americans. As such, the stigma surrounding Appalachia is critical to categorize in terms of its potential impact on acculturation.

Outside of Appalachia, Appalachians have been stereotyped as unintelligent, inbred, violent hillbillies who are more apt to make moonshine in their mountainous backyard and guard it with a shotgun than to pursue polite social conversations through toothless "Mountain Dew mouths" (Dragojevic et al., 2020, p. 1). Harkins (2004) noted that the general view of hillbillies is that they are "lazy, slovenly, degenerate people who endure wrenching but always comic poverty, embody an uncivilized state of raw physicality and sexuality" (p. 19). There is a glaring lack of appropriate distinction between real-life Appalachian people and the narrow stereotype constructed by voices outside of Appalachia (Harkins, 2004). The world looks toward Appalachia as the land of

stereotypical hillbillies and rednecks, failing to see that the stereotypes do not accurately reflect Appalachia's rich culture and experiences.

It is important to note that even the terms used to denote Appalachian people have their roots in dehumanizing them, usually intending to justify the unethical treatment of this group. For example, the term redneck can be traced back to the 1800s and denotes a classification of the working class (sunburned necks) as poor and uneducated people (Huber, 1995). However, during the summer of 1921, during the infamous Battle of Blair Mountain in Mingo County, West Virginia, Appalachian people became synonymous with the label of redneck by the intentional and slanderous efforts of the mining company (Kessinger, 2019). The event is known as the largest domestic armed conflict in the United States since the Civil War (Kessinger, 2019, p. 1). In one of the few times in American history, the U.S. Army was deployed against recognized U.S. civilians (O'Connor, 2006).

The "battle" began as a protest, during which coalminers objected to unfair treatment (O'Connor, 2006). The company responded by firing and evicting families from company housing, leaving pop-up tent towns and desperate conditions (Kessinger, 2019; O'Connor, 2006). The escalation resulted in countless miners choosing to fight for their rights and fair treatment, conflicting with the armed private mining security (O'Connor, 2006). However, the coal company hired Sheriff Chafin and the Baldwin-Felts agents to squash the protest by any means necessary, including public lynching. The cross-racial unionization of 10,000 workers (2,000 were people of color) joined to fight for their safety, wearing characteristic red bandanas around their necks (Kessinger, 2019).

Following the human rights suppression, the mining company began a campaign to paint the miners as wild, dangerous "rednecks" who were barely human (Kessinger, 2019; O'Connor, 2006). The campaign referenced their red bandanas while simultaneously tying the men to a phrase that discounted their concerns and ability to understand educated matters (Kessinger, 2019). In life and death, these Appalachians were told that their bodies and lives were only valuable for the toil of mining, without safety or protection. Each life lost was quickly replaced by another man desperate to feed his family in a changing, more industrialized, and destabilized Appalachia. The deaths of these "rednecks" meant little to the rest of the country outside of Appalachia.

The term hillbilly has a similar origin with the first known printed use of the word appeared in an article by Julian Hawthorne in the *New York Journal* in 1900 (Harkins, 2004). In this article, "Hill-Billie" was defined as

> a free and untrammeled white citizen of Alabama, who lives in the hills, has no means to speak of, dresses as he can, talks as he pleases, drinks whiskey when he gets it, and fires off his revolver as the fancy takes him. (Hawthorne, as cited in Harkins, 2004, p. 49)

Harkins (2004) added that by these terms, hillbillies are encoded in modern vocabulary as people who are "lazy, slovenly, degenerate people who endure wrenching but always comic poverty" (p. 19).

Harmful mischaracterizations are reinforced through decades of Hollywood portrayals of Appalachians. Unfortunately, there has been little evolution from the out-of-step, unintelligent, easily violent caricature demonstrated in television's *The Beverly Hillbillies* in the early 1960s compared to the more modern portrayal of the same tropes

in *Hillbilly Eulogy* on Netflix in 2020. Time has resulted in the development quality of entertainment production, yet the narrow-minded and offensive tropes surrounding Appalachia have remained the same.

During and after the 2016 U.S. Presidential election, the country's softening viewpoint swung back to a negative tone as reporters flooded Appalachia looking for "Trump's America" (Fabricant & Fabricant, 2019; Weisheit, 2022). These reports indicated that Appalachians were again to blame for the perceived negative impact on the country. The cause was reported to result from the Appalachian people's unintelligence, inferiority, and unchangeable lack of worth (Weisheit, 2022; Fabricant & Fabricant, 2019). The diversity of thought and political orientations in Appalachia could not be explored since a fixed view of a stereotypical Appalachia entirely eclipsed it.

These assumptions and discriminatory viewpoints translate into real-life implications in Appalachia. The reality of underserved Appalachian populations, who remain invisible to all outside concern apart from cyclical attention and blame, accentuates the broader issues facing the region. If Appalachians are viewed as victims, they are considered complicit catalysts of their own hardships (Engelhardt, 2005). Overwhelmingly, the literature (research and fiction/nonfiction) demonstrates that most people cannot distinguish between Appalachian culture and the pervasive poverty in Appalachia (Shwaner & Keil, 2003).

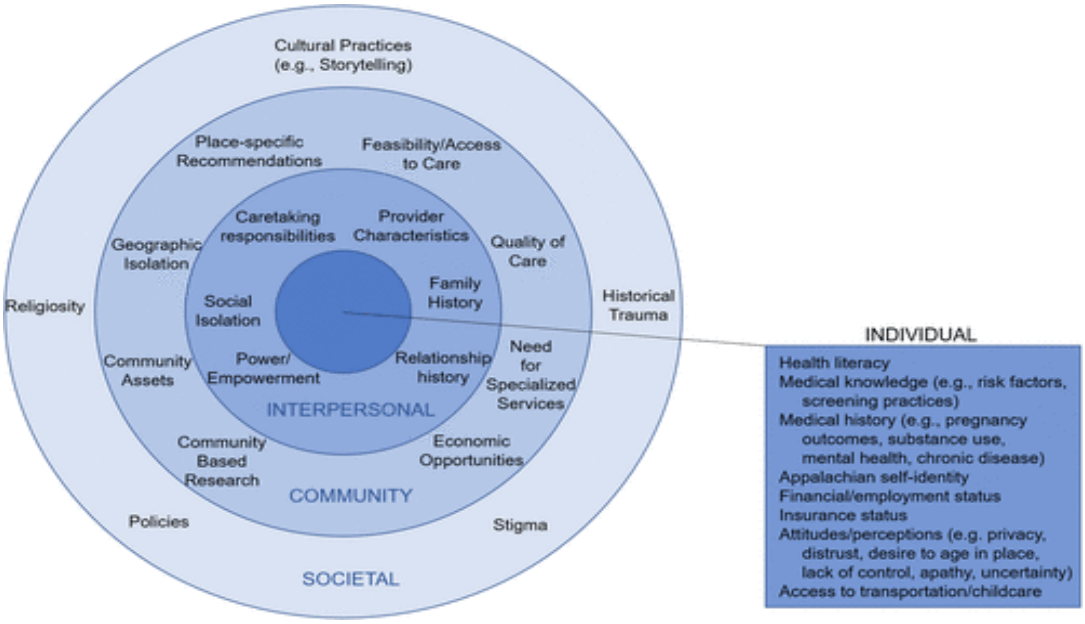
Current Implications

The toll that negative connotations and stereotypes have on acculturation in Appalachia can only be assumed, as no research exists. However, the intersection of acculturation and a fundamental lack of resources (poverty and fewer accessible services

and supports) is a glaring concern. With the prominent levels of historical stigma attached to being Appalachian, coupled with low trust of external influences, it is easy to theorize that these factors may influence how Appalachians interact with health care services or other supports (Thompson et al., 2021). A model developed by Thompson et al. (2021) shows many of the interacting variables pertaining to Appalachians accessing health care (see Figure 2), highlighting how complicated this topic can be in research. Regardless of the mechanism driving the phenomenon, this trend can be statistically noted across the three regions (Wilson et al., 2012).

Figure 2

Appalachian Socioecological Framework



Note. Adapted from "Place, Power, and Premature Mortality: A Rapid Scoping Review on the Health of Women in Appalachia," by J. R. Thompson, L. R. Risser, M. N. Dunfee, N. E. Schoenberg, and J. G. Burke, 2021, *American Journal of Health Promotion*, *35*(7), p. 1021 (https://doi.org/10.1177/08901171211011388). Copyright 2021 by the authors.

Within Appalachia, health care resources are theoretically increasing, yet resistance to accessing those options is still high, particularly in mental health care (Barr et al., 2020; Savla et al., 2018; Thompson et al., 2021). The Appalachian Regional Commission found that premature mortality in Appalachia is 25% higher than the national average and 69% higher in Central Appalachia. Research continues to highlight findings strongly indicating that living or aging in Appalachia comes with concerns, a much greater risk to health, and a significant decrease in access to sufficient services (Behringer & Friedell, 2006; Savla et al., 2018). Furthermore, some research suggests that health care access does not necessarily increase after migrating of Appalachia for at least one to three generations (Ludke et al., 2010).

For those who access services, a certain amount of cultural code switching is expected in Appalachia. Just like their grandparents and parents after World War II, Appalachians interact with a world that they perceive demands them to expurgate their Appalachian culture and denounce it as "other" (Hosley, 2004). The burden is on them to prove they are not like the overarching stereotype and demonstrate that they are sane, valuable societal contributors. The intersection of the broader United States and Appalachian culture creates little room for acculturation options. The choice is assimilation or marginalization, as defined by Berry (2017). However, the question remains if hidden biculturalism is accounting for a third option—as evidenced by potential Appalachian code switching, as cultural identification and accent or vocabulary expression differ depending on whether the individual is interacting with a person from within Appalachia or an identified outsider.

The outsider perspective is often woven through narratives centered on Appalachia or within the framework of how research questions are proposed in the literature. The focus begins with stereotypes of hillbillies or mountain men, regardless of whether the inherent judgment is skewed negatively or sympathetic (Engelhardt, 2005). Beneath the assumption that Appalachia is a patriarchal system run haphazardly by hillbillies is the silent existence of a more matriarchal-oriented Appalachia, as community equality, intergroup alliances, and a strong emphasis on social power place women at the forefront of leadership in many communities (Aaron & Rostosky, 2019; Engelhardt, 2005; Michael Maloney & Associates, 2003). Appalachia is a collectivistic, social power-oriented culture that aligns more as a matriarchal-driven system, with superimposed patriarchal-oriented expectations, in which women traditionally hold positions of community power, act as decision-makers, and uphold the health and overall organization of their communities without any visibility from external perspective (Blackwell, 2015; Tallichet, 2006; Tedesco, 2015).

In an already invisible minority, Appalachian women are further eclipsed by the stereotypes that drive the outsider approach to Appalachian issues. The divide between assumptions and the reality of Appalachian gender roles highlights the harm of superimposing cultural assumptions and forced-choice acculturation that strips the native culture of its resiliency and overall health. Overwhelmingly, the scholarly approach to Appalachia has not given space for the voices of those who identify as Appalachian American *and* female (Aaron & Rostosky, 2019). Appalachian women (across racial and ethnic diversity) have dominantly faced the brunt of intersectional outcomes, cultural stigma, and acculturation demands. They silently shoulder the weight of responsibility

and act as the intermediary between professional services and their community as a part of their cultural role (Denham et al., 2004).

It would be expected that the empowerment of Appalachian women would have a trickle-down effect on the extended communities they represent, increasing health care service utilization in their communities. The most prominent issue with this solution is the need for more visibility of Appalachian American female identities in the literature or the broader Euro-North American perspective. When interfacing with services that trigger acculturation (outsiders), marginalization (or the silencing of individuals) cannot result in positive health care interactions or unencumbered access to adequate services. Based on the lack of acknowledgment of Appalachian women in the literature, ignoring voices can only result in misunderstandings and a lack of appropriate responses from researchers and professionals.

Purpose of the Study

The purpose of this study was to investigate the relationship between the bicultural identity of Appalachian American females and their attainment of mental health services. The potentially mediating role of perceived external stigma (discrimination) was explored as it related to this relationship. This study sought to observe the bicultural identity expression of Appalachian American females, their perception of external stigma based on their Appalachian identity, and their current level of interaction with mental health care services. Additionally, this study sought to support recent research indicating low rates of Appalachians accessing services while expanding the literature concerning the perceived barriers to these services. Overarchingly, the study

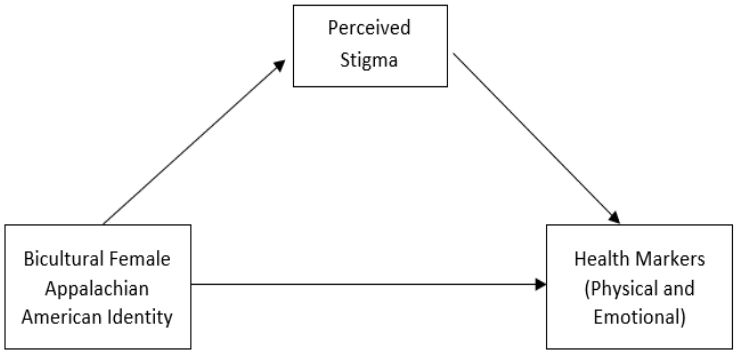
sought to explore self-reports from Appalachian American females regarding acculturation, with a specific focus on bicultural identity experiences.

Research Questions

The primary question explored in this research examined stigma's impact on acculturation and accessing mental health care services. The aim was to understand if perceived stigma attenuates the relationship between bicultural identity, specifically regarding female Appalachians, and their historically poor engagement in accessing mental health services. The research focus was on literature that acknowledges Appalachian female roles in the communities, the perceived stigma of Appalachian identity, and the overwhelming low rates of health care service utilization within Appalachia and overall poor health care reports. Figure 3 illustrates the theoretical model proposed in this study.

Figure 3

Proposed Theoretical Model



Definition of Terms

The term *Appalachian American female* refers specifically to the population of females originally from the Appalachian region and who can be culturally defined by the markers of Appalachian culture. For this study's context, individuals who have migrated into the area from other cultural backgrounds or geographical regions were excluded from this definition.

Bicultural identity is the intersection of two identifiable cultures that coexist along a spectrum within an individual. In the context of this study, bicultural identity refers to the dual Appalachian and broader United States (Euro-North American) identity of Appalachian American females. Females who only identify as assimilated (reject their Appalachian identity) fell outside of the study scope.

Assumptions and Limitations

A key study assumption was that cultural unity across the various Appalachian regions is significant enough to include the breadth of Appalachia instead of narrowing the focus to a particular subregion within Appalachia. This assumption is supported by previous research indicating that although regionally based (within-group) differences can be identified, overarching values connect Appalachians across the expansive region (Tang & Russ, 2007). Another key assumption was that individuals who identify as Appalachian have some degree of the bicultural outcome of acculturation due to their interaction with non-Appalachian cultures in the United States.

Significance of the Study

Many Appalachians are not connected to health services, especially mental health care (Barr et al., 2020). By addressing the issues of collectively silencing female

Appalachian voices and the broader external stigma that may further deter Appalachian women from mental health services, advocacy could lead the way to long-term change and a positive increase in holistic health outcomes. In the past, health care services have taken on forms of mission work at their best and shadows of colonialism at their worst. Providers assumed that Appalachians fit into the subscribed stereotypes and thus must be saved from their ignorance or treated as if they do not have the autonomy to be involved in their own treatment (Crowe-Carraco, 1978; Lewis, 1978). This study sought to invite Appalachian women to include themselves in the process, which could also result in future work exploring Appalachia's diversity. In turn, this research set a foundation for examining the impact of acculturation pathways in Appalachia and informing an appropriate multicultural-focused lens of clinical mental health practice within Appalachia.

Theoretical/Conceptual Framework

As defined by Berry (2007), the acculturation process has been used to explore various situations in which two or more cultures interact within an environment. Identifying an individual's acculturation level has been well documented as a practical framework (Berry, 2007). However, no research exists to date regarding Appalachian bicultural identity. Instead, any view of acculturation from an Appalachian focus frames assimilation as the standard by which an Appalachian can successfully integrate into the broader context of the country by highlighting intragroup distinction and outgrowing a stereotypical narrative (Bailey, 1997; Harkins, 2004). Furthermore, this process remains to some extent because the stigma associated with Appalachian identity is woven throughout Appalachia's history, extending into the present day.

Organization of Remaining Chapters

Chapter 2 focuses on expansively reviewing the literature surrounding Appalachian female identity, acculturation (bicultural identity), perceived stigma concerning Appalachian identity, and health care outcomes and barriers to the active utilization of services among Appalachian populations. First, research related to females and gender roles in the broader Appalachian culture is presented, along with the current understanding in the research in terms of diversity. After this, literature related to the historical and modern stigma associated with the Appalachian identity is explored, including the limited research highlighting Appalachian awareness and expectations of encountering stigma and discrimination. Next, acculturation literature is presented, with a focus on bicultural models. This literature centers on the conceptual model of acculturation, as no current research directly explores bicultural identity regarding Appalachian culture. Finally, research surrounding the current underserved Appalachian population and health outcomes compared to the broader United States population is presented before highlighting the lack of access (both practical barriers and perceived lack of access) that many Appalachians face. The chapter concludes with a summary and a reemphasis on how these variables intersect in the limited literature.

The third chapter is organized to demonstrate this study's design and methodology. Participant selection, research questions, study procedures, and instruments used are reviewed, along with discussions involving ethical considerations, data analysis, and the study's potential significance. Building on the guidelines, Chapter 4 presents the data and demonstrates the analysis described in Chapter 3. Finally, Chapter 5 consists of

a holistic summary of the study's purpose, research basis, and findings. The study concludes with implications and recommendations for future research.

Summary

This chapter was an exploration of the historical context of Appalachian culture, including the complexity of origination, development, and place in Euro-centric American history. The overall goal of this chapter was to clarify the foundational knowledge of Appalachia required to formulate the research question addressed in this study. By providing context, the introduction and background of the problem both helped to center the conversation within the Appalachian perspective, as opposed to the outsider's perspective. With this framework, it is possible to note the discrepancies between cultural assumptions and existing reality influencing projected stigma and acculturation expectations. The study aim was to determine the existence or strength of the proposed theoretical relationships and expand the literature to include acculturation as a factor to contend with in Appalachian research. To illustrate this process, Figure 3 provided a visual representation of the proposed theoretical model. Finally, study limitations and assumptions were addressed, and practical implications of this research were highlighted.

CHAPTER 2: REVIEW OF THE LITERATURE

Overview

This chapter is an exploration of the literature related to the three identified variables in this study: Appalachian American female bicultural identity, perceived external stigma, and the utilization of health care services. The presented literature review also expounds upon acculturation concepts, with an emphasis on bicultural identity. Overall, the literature centers on the conceptual framework proposed as the study's objective.

Appalachia

As emphasized in Chapter 1, Appalachian culture demonstrates a marked divergence from the broader Euro-North American culture. Historically, the contextual, multigenerational experiences of the Appalachians are unique, and the intrinsic values and well-defined collectivistic worldview are of note (Adams, 2001; Peine & Schafft, 2012). Communality or collectivistic attitudes are standard in Appalachia, as well as the corresponding values of mutual respect, loyalty, hospitality, and equality—a divergence from a classic Euro-North American hierarchical structure (Berg, 1994; Lewis, 1978; Salyers & Ritchie, 2006). The foundation of being a collectivistic culture inside a highly individualistic dominant-cultured (Euro-North American) nation sets up an interesting juxtaposition and an often-oppressive clash of worldviews that results in Appalachian suppression (Lewis, 1978).

These factors also impact how Appalachians interact with non-Appalachians. Based on traditional intergroup reliance, Appalachian perspectives of help seeking are typically limited to resources in the community (Starcher et al., 2017). These values are

demonstrated through reliance on the community system or kinship networks, which remain the backbone of Appalachian communities across the three regions (Wolff et al., 2016). These values are demonstrated through reliance on the community system or kinship networks, which remain the backbone of Appalachian communities across all three regions (Wolff et al., 2016). Simultaneously, due to the historical context of oppression and the within-group focus, there is a strong distrust and skepticism of individuals who are identified as non-Appalachian (Erby & Hammonds, 2020; Savla et al., 2018; Wolff et al., 2016).

However, this understanding of Appalachia is not straightforward, as two distinct identities emerge—the Appalachia defined by outside voices and the silent Appalachia that exists under stereotypes (Obermiller & Maloney, 1994). Skepticism appears logical regarding the superimposed dominant culture (Euro-North American) or the pressure of forced assimilation, both of which are well documented. Appalachia is framed through a biased lens, which does not give credence to maintaining the community's health (Denham et al., 2004; Engelhardt, 2003). These identities are an essential aspect of Appalachian culture and the building blocks for healthy Appalachian life overall.

Appalachian American Females

The existence of external bias and unrealistic assumptions are especially acute for Appalachian females. From an outside perspective, Appalachian females are chronically misunderstood and systematically disempowered. In this regard, Dyer mused, "How can we shed the common notion that Appalachian women are a homogeneous group of dependent, submissive females, small filler beads in extended families, victims of intensely patriarchal men?" (as cited in Engelhardt, 2005, p. 1). Engelhardt (2005)

elaborated on this concept by noting that Appalachian literature primarily centers on stereotypical mountain men, in which mountain women are simply supporting roles or one-dimensional caricatures to provide the mountain man a companion. Women have not historically been included in the narrative of Appalachia as told from outside perspectives.

As pseudoempowered women, Appalachian females have only been portrayed throughout history as individuals who were capable of hard physical labor and nontraditional femininity (Harkins, 2004; Tallichet, 2006). During the turn of the 20th century and beyond, Appalachian female stereotypes were used to thrill audiences while warning the broader society of the "dangers of crossing social and gender boundaries" (Harkins, 2004, p. 59). They were not adopted by the suffragette movement, as they were overwhelmingly viewed as undesirable and separated from their non-Appalachian female counterparts (Engelhardt, 2005; Harkins, 2004; Tallichet, 2006).

The conflicting view of what is assumed and what is real often leaves Appalachian females in the unique area of being seen as nontraditional women but not in ways that are worthy of admiration or acknowledgment in feminist viewpoints. Tallichet (2006) cited the contextual history that makes a Euro-North American view of feminism impossible for the average Appalachian female, as there is no room to make space for this type of diversity in the dominant perspective. In other words, the imposed pseudoempowerment does not speak to Appalachian women's actual diverse experiences, strengths, or feministic activism. Instead, it alleviates a desire for entertainment and cautionary tales of taboo femininity for an audience far removed from Appalachia.

The disregard of Appalachian women by even staunch feministic movements is complicated, but it is explained by how these individuals are perceived by their non-Appalachian peers. In the literature, Appalachian female identities are framed as passive, secondary characters heavily steeped in a culture geared toward a patriarchal hierarchy (Bell, 2013; Engelhardt, 2005). However, limited research indicates what Appalachians have silently acknowledged in their communities for years: There is a significant disconnect between the perceived traditional gender roles (patriarchal culture), religions, and conservative values and the actual roles and values expressed in Appalachian families (Aaron & Rostosky, 2019; Bell, 2013).

In this regard, Aaron and Rostosky (2019) found that Appalachian females have social power (matriarchal underpinnings), act as final arbiters of financial and family/community decisions, and are viewed as communication mediators and the ultimate wise counsel. This perspective is supported by a long history of particular nontraditional gender roles, with underlying cultural values that uphold a vastly different community organization superimposed upon Appalachia (Bell, 2013; Engelhardt, 2005). In other words, Appalachia seems to have a more matriarchal-oriented foundation under a patriarchal veneer. This concept alone points to the implications of a significantly misrepresented Appalachia.

Mischaracterizing an entire culture is a detriment to modern society, and the disregard of Appalachian females impacts the whole of Appalachia. It is probable that women have unrecognized power as they are often the interface between their local communities and the greater external culture. Disempowering women effectively and comprehensively destabilizes Appalachian families and communities. The immediate

outcome would be the development of barriers regarding accessing necessary resources housed within the external culture (Euro-North American). It is important to note the historical trends of marginalizing Appalachian women as well as their response (biculturalism and code switching) and the impact this has on holistic outcomes for Appalachia.

Hidden Intergroup Gender Roles

Ethnographic studies have documented the traditionally held role of Appalachian females as primary decision-makers and arbiters of power in matters related to family health (Denham et al., 2004). Schoenberg et al. (2008) stated,

> Women, most especially those in their midlife . . . frequently serve as health gatekeepers, monitoring, facilitating, and providing direct care for their family members, and sometimes for other community members. These generalities may be especially pertinent in the rural Appalachian context, which has a strong tradition of female leadership in familial and community health promotion. (p. 79)

These themes indicate a vastly different story than the one assumed of Appalachian culture externally, and they warn of the potential negative effects of cutting off entire Appalachian communities from beneficial services if Appalachian females cannot safely access the services themselves.

Yet, if this is Appalachian culture, why did the stereotypes become so distorted? To answer this question, researchers must examine Appalachian history over the past century. With Appalachia's industrialization, non-Appalachian elites sought to claim the wealth of natural resources in Appalachia (coal, oil, timber) and began to systematically change the region's cultural stratification (Lewis, 1978). These industries were not

structured to add value to or integrate into their communities; instead, the problematic and unsafe physical labor demanded a controlled labor force that was created by disrupting communities and family systems (Lewis, 1978). As such, the rise of company-built-and-owned towns shifted the organic distribution of communities and created an increasing dependence on the companies themselves (L. A. Hayes, 2018; Lewis, 1978).

As community structures were upended and currency became more necessary in Appalachia (as opposed to bartering or trade), the industrial giants built new communities that consisted of homes, churches, schools, and health care systems, all company owned and operated (Lewis, 1978). Industry organizers successfully enticed Appalachian men to relocate to these industry-run towns to work with the promise of a steady income and family safety in terms of comfort and longevity (Lewis, 1978). The changes that were implicated by this social shift were immense in terms of societal priorities and organization. While these changes impacted each Appalachian, the greatest shift can be found in terms of Appalachian females and their removal from industry-imposed societal structures.

Excluding women from the workforce was intentional during this period. As history cites, it was not profitable for titans of the industry for women to work, as their domestic responsibilities (unpaid labor) kept the company towns running without additional costs and increased industrial companies' profits (L. A. Hayes, 2018; Lewis, 1978). Nevertheless, adjusting to this new system was difficult for many. In fact, Appalachian women continued to secretly join the mining workforce (Tallichet, 2006). However, company-driven superstitions about women in mines and the passage of laws prohibiting females from working in mines were successfully lobbied into existence by

the industry's companies in all 13 Appalachian states (Lewis, 1978; Tallichet, 2006). Restricting women from the few paid job options effectively locked them out of the possibility of making a living independently or maintaining equity in the new communities.

The "industrialization" of Appalachia was never designed to benefit the workers. The system was constructed to pay wages that met minimum survival standards but not enough to improve the quality of life, own property or houses, or save money for non-survival-based goals (Lewis, 1978). When the companies had stripped as many resources as they could away from their acquired land, they pulled out and simply moved on to the next location, leaving the towns crumbling and the workers without employment (Lewis, 1978). The imposed hierarchy (delegating and reorganizing women's labor) did not arise from Appalachian culture. However, it was a permanent scar of colonization-style exploitation of low socioeconomic communities for cheap labor in high-stakes, risky environments (Lewis, 1978; Tallichet, 2006).

After industrialization began to wane, Appalachian women continued to perform most of the emotional and domestic work in the family and were met with few economic or employment opportunities in the "new Appalachia," which had been ravished by titans of industry (Lewis, 1978; Tallichet, 2006). This trend has continued, with recent studies indicating that Appalachian women are more responsible for their family care, domestic, unpaid work, and relationship-oriented activities than Appalachian men after the socially imposed changes that were enforced by state laws and industry companies (Hamby et al., 2017). The intentional unbalancing of equality was not correctable after the companies withdrew, as families had been forced to rely solely on the company and were often left

destitute after losing minimal paychecks and housing (Lewis, 1978). Likewise, women found employment opportunities greatly limited as they were expected to acclimate as unpaid domestic housewives with no voice within the broader United States (Lewis, 1978).

Overall, industry norms had highlighted the trend of Appalachian women continuing to function as the "backbone" of their communities, as Appalachian men were tasked with hard labor and an elevated risk of a subsequently short life (Miewald & McCann, 2004, p. 1051). Across the board, Appalachian men still expected their women to take care of every other aspect of life, including family decisions, planning, budgeting, and overall managing (Miewald & McCann, 2004). While women were free to be active members in their communities prior to the rise of Appalachian-focused industry, women were expected to carry the entire emotional load after this social change (Lewis, 1987, Miewald & McCann, 2004).

Unfortunately, this new system negatively impacted families and communities at a deep level, as fathers were absent and mothers were overworked and dependent on men for monetary income (Miewald & McCann, 2004). Even with the evolution of gender roles throughout the United States, Appalachia continues to wrestle with barriers regarding employment opportunities. Industry jobs are still the most lucrative, although significantly fewer, and their organic communities that brought resiliency and strength are not so simple to rebuild (L. A. Hayes, 2018).

Nevertheless, feminist-informed research is significantly missing from the field. When gender is acknowledged, it is done so from the extension of Appalachian hillbillies (men), which continues to assert the insignificance of Appalachian females in modern

perspectives (Engelhardt, 2005). Appalachian females are seen as antifeminists for continuing to participate in a system that was imposed on them rather than acknowledging their cultural values and resiliency in the face of chronic, systematic oppression and significant barriers (Bell, 2013; Engelhardt, 2003;Tallichet, 2006). Harkins (2004) addressed the most common tropes associated with Appalachian females as

> The beautiful but ignorant mountain lass; the over-worked and crudely attired drudge who struggles to care for her oversized family; or the bonneted, toothless crone who lives out her remaining years smoking a corncob pipe awash in a haze of melancholia. (pp. 32–33)

The message is the same regardless of which stereotype is used; Appalachian women are removed from social settings, significant decisions, or leadership roles and reduced to unprogressive, backward propagators of strict patriarchal rule. They are erased from Appalachia's narrative.

However, the damage comes from more than just the existence of stereotypes or the silencing of Appalachian voices. Researchers such as Engelhardt (2005) point out that scholarship focused on finding a positive aspect of a stereotype only reinforces the idea that the stereotype holds merit in the first place. Scholarship masquerading as helpful only fights within the stereotype without acknowledging that a wealth of knowledge may be gained from the participant's culture and experiences. In other words, when Appalachian females are included in scholarship, they are often observed as a removed third party instead of giving space for their unique voices.

Appalachian women retain an unrecognized power to positively change the holistic outcomes and quality of life in Appalachia as well as being a source of inspiration for the broader country. The problems that arise from marginalization come externally to Appalachia instead of being representative of defective aspects of Appalachian culture itself (Haywood & Swank, 2008). Haywood and Swank (2008) highlighted that research frames violence against women (gender violence) as endemic to Appalachia, but the argument is built upon stereotypes of Appalachian culture that illicit references to inherited ignorance, violent proneness, and inherently dangerous people who are not fit for modern society. In this regard, Gagné (1992) even extended this argument to explain the existence of gender violence on the passive nature of Appalachian women and wives and the proclivity of "disciplinary violence" to keep Appalachian women and children in compliance with the patriarchy. This narrative is upheld despite Appalachian men being less likely than their non-Appalachian counterparts to desire unequal patriarchal partnerships (Stratton & Moore, 2002).

Research seeking to include the voices of the Appalachians themselves indicates a vastly different story. Logan et al. (2005) found that rural Appalachian women (Kentucky in the present study's context) who were rape survivors expected more contemptuous or even retaliatory reactions than their non-Appalachian peers when reporting or seeking services or reporting the crime. Although Appalachian females are no more likely to be sexually promiscuous or the victims of sexual abuse than their non-Appalachian peers, there was a severe distrust of police, social workers, and other mental health providers to handle the report appropriately, including with regard to assuring confidentiality and protection for Appalachian females (Logan et al., 2005; Vicary et al., 1995). Furthermore,

when researching Appalachian attitudes toward rape myths, Haywood and Swank (2008) found that Appalachians are less likely than their non-Appalachian peers to criticize or misrepresent rape victims, demonstrating less adherence to commonly held rape myths.

Haywood and Swank (2008) noted that the myths related to how rape is viewed in Appalachia are not supported in research and that specific inferences can be made about an individual's likelihood to perpetuate rape culture based on their worldview, as individuals who are more likely to believe rape myths accept three predominant gender viewpoints: (a) unequal gender roles and practices are fair, (b) women fundamentally belong within nurturing or emotionally focused roles that include motherhood or homemaking, and (c) women are less trustworthy than their male counterparts. As such, it would appear that these beliefs do not necessarily align with more traditional worldviews among Appalachian people.

What is also notable is research indicating that a statistically higher risk of domestic violence or gender violence in modern Appalachian regions is not correlated with Appalachian culture but instead correlation disappears when the scars of colonialism in Appalachia are controlled for (Shwaner & Kiel, 2003). In other words, Appalachian culture did not give rise to negative statistics. Instead, abject poverty, substance misuse, disrupted resiliency factors, and other signs of trauma directly result from Appalachia's systematic destabilization for profit and its ongoing crisis as a population in peril. In this example, it is clear that Appalachian women's experiences are assumed and vilified instead of allowing Appalachians to provide their own comprehensive narrative.

The real stories of women who maintained their culture despite the persistence of industry titans' relentless oppression, or of the women who continued to practice their

collectivistic values of supporting their communities, which sometimes resulted in breaking the law and working in the industry despite the ban, are missing from most research. Repeatedly, Appalachian culture is mistaken for the culture of poverty left behind by unfettered capitalism and shades of colonialism. To acknowledge the unheard voices of Appalachian women is to finally recognize Appalachia as positively self-determining and capable and espousing a culture that is not industry driven or defined by poverty. Giving space for their voices is also to create a dialogue that disavows Appalachian stigma and recognizes how Appalachian culture was attacked for profit, the implications of which still resound in Appalachia.

Perceived Stigma

From the research lens, when an identity divide is observed, logical questions arise concerning why the range exists. In the case of Appalachia, where Appalachians present one image to the world and another within the safety of their communities, the question of a bicultural divide is straightforward. History documents Appalachians struggling to secretly maintain their culture while externally adhering to the imposed dominant culture (Lewis, 1987). The struggles have only increased with the rise of non-Appalachian involvement in Appalachia and the consequent chronically imposed stigma (Engelhardt, 2005).

Continued disconnection, as demonstrated through hidden cultural adherence, could be argued against from the lens of Appalachia's imposed social change via industrialization (complete assimilation) if it were not for the reports of modern Appalachians who recognize that they culturally code switch (present Appalachian culture or hide it) depending on the situation or social environment (Engelhardt, 2005;

Lewis, 1987; McHenry-Sorber & Swisher, 2020; Slocum, 2019). Instead, this bicultural code switching suggests that the Appalachians still do not feel comfortable sharing their truth or culture with the "outsider" Americans, nor have they abandoned their culture for the allure of the dominant Euro-American culture.

Appalachians exhibit behavior indicating an inherent fear that their culture will be vilified or discriminated against during interactions with outsiders. Specifically, research suggests that Appalachians live under the assumption that anything Appalachian will be distorted or ridiculed by the broader American culture (Blackwell, 2015; Morrone et al., 2021). However, the fear does not appear to be paranoia but rather an occurrence that Appalachians encounter throughout their lives. Lived experience with restricted access to needed resources, long-standing negative stereotypes of the people of Appalachia as "degenerate, uncouth, and lazy," and uneducated "hillbillies" are pervasive, giving evidence to the existence of Appalachian discrimination (Harkins, 2004, p. 4). In other words, there is a long-standing tradition of reducing Appalachia to derogatory tropes and actively discriminating against Appalachians.

For example, in a 1958 edition of *Harper's Magazine*, Votaw wrote that Appalachians settle into

> deteriorating neighborhoods where they can stick with their own kind, they live as much as they can the way they lived back home . . . congregating in the evening on front porches and steps, where they find time for the sort of motionless relaxation that infuriates bustling city people. (p. 65)

Votaw (1958) also highlighted that in typically racially biased environments, even prominently White Appalachians are identified as "other" and instantaneously mistrusted,

profiled by police, and out of place to the extent that “they are a disgrace to their race” (p. 67).

Similar mindsets can be found today, as in Dragojevic et al.’s (2020) article presenting an interest in exploring “Mountain Dew mouth” (tooth decay) in Appalachia, even though tooth decay is a concern across the United States and a condition typically clearly labeled by its medical terms in all other populations. By using a phrase that arose from entertainment sources, Dragojevic et al. perhaps sought to be more relatable by using the stereotype of Appalachians’ love of Mountain Dew to highlight elevated rates of oral disease, including cancer. However, by engaging in such loaded terms, this type of research legitimizes the commonly appearing perspective that Appalachians are somehow more responsible for their poor dental health than the rest of America. The key message indicates that Appalachians deserve adverse outcomes and poverty due to some inherent negative defect that makes them unique.

Even more specifically, Morrone et al.’s (2021) mixed methods research highlighted the narrative of Appalachians who reported being uncomfortable and unsafe interacting with health care providers. Participants shared individual experiences of being treated as a “dumb hillbilly” or being dismissed and intimidated by attitudes of superiority by their health care providers. For example, one participant shared that a doctor called her “welfare trash” during a health care visit (Morrone et al., 2021). These examples indicate that Appalachia’s mischaracterization continues to create discrimination and stigma even in typically professional or socially legitimized circles.

Stigma’s impact of stigma on people can be astronomical in terms of holistic health outcomes and quality of life. In fact, research indicates that perceived stigma likely

has a direct effect on self-efficacy and self-concept, which in turn may result in a myriad of outcomes related to poor health qualities and cyclical, maladaptive coping habits (Crapanzano et al., 2018). Likewise, Arnaez et al. (2020) found that perceived stigma was the most powerful in terms of personal implications when the stigma was internalized to some extent. Individuals in Arnaez et al. who had internalized stigma surrounding an identity or aspect of themselves revealed significantly higher rates of negative treatment expectations and overall barriers to accessing resources or health care services.

While research is still greatly lacking in terms of perceived stigma and Appalachian identity, it is possible to look at this impact in other historically marginalized groups. For instance, it is easily argued that few modern groups have faced as much marginalization, overt racial violence, and discrimination as people of color. In this area, research is clear: Perceived stigma not only reduces the frequency or likelihood of accessing needed health care services, but individuals also report more severe outcomes (Budhwani & De, 2019). In a 2019 study, Budhwani and De found that perceived stigma in relation to people of color in the United States increased the risk of depression by 61% and significantly increased the number of reported poor physical or mental health days. Furthermore, participants of color in this study were more likely to report barriers concerning financial resources, even with some health insurance coverage, and were less likely to have a primary care physician or routine provider (Budhwani & De, 2019). Both factors have an impact on how comfortable a person may feel interacting with health care professionals and the stress likely experienced when having to interface with these services, which then influences the quality of interactions and professional

familiarity that reduces the risk of undiagnosed illness or silent suffering (Arnaez et al., 2020; Budhwani & De, 2019).

While Appalachia is not defined by race, meaning that there are people of color who are also Appalachian, an exciting phenomenon may arise when White Appalachians wrestle with the stigma of being Appalachian. In other words, White Appalachians do not visually differ from their non-Appalachian Euro-North American peers. The question is whether this nonvisual identity marker correlates with Berry's (2003, 2007) concept of motivation to seek biculturalism. In other words, masking Appalachian culture would allow many White Appalachian Americans to blend silently into the dominant culture and gain privilege (Berry, 2007). While this process likely looks different for Appalachians of color, those groups may similarly disappear within other more dominant (as compared to Appalachia) cultures as well.

From a place of recognizing perceived stigma, it could be theorized that Appalachians have hidden their culture from the outside world instead of giving it up entirely and assimilating against their will. Appalachians have been vilified and harmfully degraded when they have chosen to resist or protect themselves from unwanted intrusions or overt harm (Lewis, 1978; O'Connor, 2006). In his exploration of Appalachian experiences, Cole stated that "What is significant about Appalachians is their history of systematic, routine oppression" (Cole, 1993, as cited in Torres, 2005, p. 69). As such, it could be theorized that these collectivistic harmonious values, coupled with a history of suppression, indicate that Appalachians are not likely to advocate for themselves or their culture overtly. Instead, to preserve the peace for survival, some Appalachians appear to have developed notable code switching, embracing invisibility

with regard to their broader American counterparts while peacefully continuing to secretly live out their underlying culture within the safety of Appalachian communities.

Bicultural Identity

From an outside lens, Appalachia is coded as having traditional gender roles coupled with fundamental Christian perspectives that uphold rigid patriarchal systems of inequality (Berg, 1994; Latimer & Oberhauser, 2004). However, there is a distinct lack of sameness compared to southern, non-Appalachian, or conservative rural regions. Appalachia is recognized as other, and there is a well-documented ubiquitous distrust of outsiders or authority figures/institutions from within Appalachia, indicating some sense of agreement from the Appalachian perspective (Latimer & Oberhauser, 2004). Instead, one's roots or ties to Appalachia are an integral piece of an Appalachian person's identity, perhaps more than the overarching sameness of living in the United States (Latimer & Oberhauser, 2004; Prajznerova, 2003; Slocum, 2019; Tedesco, 2015).

However, as demonstrated in this chapter, some level of acculturation is likely necessary as the Appalachian cultural group is presented with a conflicting dominant culture (Berry, 2007). In this study's scope, as defined over the remaining chapters, the bicultural acculturation model was the outcome of interest regarding Appalachia. In the research, Berry (2003) presented bicultural identity as the process by which an individual adapts to a secondary culture, either by contact with the culture or by being born into a system of more than one present culture. Berry stated that bicultural identity exists on a spectrum, with two determining factors: the degree of self-motivation to retain one's base cultural identity and the degree of interest or self-motivation to engage or adapt to the host culture.

Examples of other cultural, ethnic, and racial groups engaging in this process can be seen in the acculturation of the Hmong people, Latin Americans, or African Americans in the United States (Liao et al., 2020; Turner & Cabell, 1985; Vang & Flores, 1999). However, one of the commonalities is the specific factors related to the acceptance of the host culture and perceived discrimination or stigma associated with an aspect of the individual's identity (Berry, 2003, 2007). Regardless, research is needed concerning bicultural identity in Appalachian culture. However, Berry (2003) set up the model in a way that could be extended into this area of study.

Related Examples of Bicultural Identity

One example of bicultural identity is found in the Asian/Caucasian population. Toomey et al. (2013) found that Asian/Caucasian participants engaged in the typical dialectical (simultaneous push-and-pull) process of reconciling a complete identity. However, an interesting indication of friendships with people from one (or none) of the cultural identities was based on how much emphasis on differences the participant perceived others placed on them and their identities; the greater the emphasis, the less likely a solid connection was possible (Toomey et al., 2013). In other words, bicultural-identified individuals continue to seek out points of belonging with others, or at a minimum, do not call attention to diversity without permission.

Asian/Caucasian participants in Toomey et al. (2013) reported having healthy connections with individuals from both cultural groups; however, there was a stated avoidance of mixing those worlds into the same space. The study participants viewed bicultural identity as two complimentary "double" identities rather than viewing their two cultures as oppositional or "split" (Toomey et al., 2013, p. 133). This fact elicits the

question of how the process might look different if the two identities were in a more oppositional framework in modern society.

Bicultural and biracial individuals provide an opportunity to explore this aspect of clashing identities. These individuals experience greater psychological distress levels than individuals in majority groups. However, their levels are comparable to other minority group members (Shih & Sanchez, 2005). Foley (2020) spoke to this issue in the research, indicating that biracial identity disrupts the bicultural process, as the identities are often split in presentation or more difficult to reconcile. Biracial (Black and White) individuals demonstrate a high correlation between self-esteem, racial pride, and their own internalized concepts of race (Willis & Neblett, 2019).

This sentiment carries through the concept of personal and varying degrees of complication when addressing internal bicultural identities. Hong et al. (2000) cited the importance of identifying cultural frames, which shift depending on bicultural outcome and situation. Cultural schemas apply to social events and guide behaviors only when they come to the foreground (Hong et al., 2000). In this regard, successful bicultural identities function as helpful tools to navigate the collision of cultures. Instead of hiding aspects of self, the ability to fluidly shift cultural frames as needed demonstrates potentially elevated resiliency.

The degree to which individuals identify on the bicultural spectrum is likely to be directly influenced by how they interpret or reconcile competing social norms, values, and behaviors (Berry, 2017). In other words, numerous internal and external factors determine what level of bicultural identity an individual may feel the most content to embrace. While research indicates that each group has its bicultural norms, Appalachia

has yet to be explored in terms of its own clashing cultures and internalized stigma. What is certain is that the derogatory narrative that has dominated the conversation surrounding Appalachia is a significant factor in this mechanism for countless Appalachian American people.

Toomey et al. (2013) argued that positive affirmation regarding a bicultural person's identify has a direct, positive correlation with social self-esteem. The degree of bicultural identity indicates that how the surrounding host or coexisting cultures interact or identify the individual's various cultural identities is linked to overall health and psychological well-being. The vulnerable identity is likely to appear in scenarios where the individual may feel an increased risk of rejection and employs buffering behaviors to self-protect (Toomey et al., 2013). Specifically, it is likely that in these situations, buffering may take on forms such as code switching or masking.

Code Switching

Discrimination has been Appalachia's overarching theme throughout its history. In many cases, language cues or speech patterns specifically associated with the Appalachian dialect are labeled as "backward, uncouth, and unsophisticated—a hayseed, hillbilly" (Theobald & Wood, 2010, p. 18). This overt discrimination often leaves Appalachian students either seeking out their Appalachian peers or consciously altering their language usage and dialect to disguise their identity in non-Appalachian spaces (Dustan & Jaeger, 2016). McHenry-Sorber and Swisher (2020) noted that the decision to seek out safe groups or hide indicates a deeply rooted desire for acceptance into a specific group (Appalachian or non-Appalachian), or maybe, more importantly, it offers an opportunity to not be associated with or recognized as Appalachian.

In qualitative research, Appalachians often describe their experience of being Appalachian in terms of the external barriers and limitations and the internal pride of being a part of a community that shares deep values of respect, loyalty, interpersonal commitment, and harmony (McHenry-Sorber & Swisher, 2020). The divide indicates a willingness of Appalachians to discuss the challenges of being born Appalachian on an intellectual level while still internally valuing what they assume others could never understand or accept (McHenry-Sorber & Swisher, 2020). The narrative data collected by McHenry-Sorber and Swisher (2020) also indicated that many Appalachian females found it challenging to create close, positive relationships with non-Appalachians, and two participants specifically identified the cultural divide as the cause, both reporting having experienced rejection and negative stereotypes when revealing any aspect of their Appalachian culture (Sorber & Swisher, 2020).

Regardless, each of the nine participants in Sorber and Swisher's (2020) qualitative study indicated that each had found ways of either acclimating to the culture surrounding them, juggling multiple identity presentations (depending on the setting or Appalachian status of other students), or rejecting the dominant culture and subsequently facing the loneliness and increased stress or a potentially higher college attrition rate as a result. For the students that chose to assimilate externally, changes included more than language altering and included how or what they shared with others about their life experiences with home and community (Sorber & Swisher, 2020).

In this regard, it appears that Appalachian code switching requires a conscious, concerted effort to hide anything that may be associated with an Appalachian identity, as well as the typical aspects of altering behavior or dialect. Appalachians appear to believe

that they are being asked to reject their own culture to be accepted by the broader society. The implications of this on Appalachian self-esteem or self-efficacy can only be speculated about as no research has approached this subject to date.

In the simplest terms, code switching can be defined as "the ability to adapt one's behavior as a response to a change in social context, much like bilingual speakers switch languages in response to a change in linguistic context" (Morton, 2014, p. 259). Morton (2014) further elaborated on the structure of code switching by identifying four mechanisms that often motivate the switch. The first option is presented as a natural aspect of the integration of cultures, which Morton (2014) presented similarly to Berry's (2003, 2007) concepts of biculturalism. The second, code switching as a pretense, indicates altered behavior based on specific values or priorities internalized by an individual (Morton, 2014). However, the third mechanism, compartmentalized code switching, originates from more externally based pressure or some sense of shame based on the context (Morton, 2014). Finally, subsumption is defined as adapting due to the context of valuing a specific thing without adopting the importance of the value internally (Morton, 2014). This framework of code switching is significant as it indicates the potential of healthy versions and imposed or forced scenarios that are hypothetically more dangerous to holistic identity.

In terms of externally pressured code switching, there is doubtless a cost to code switching or rejecting one's own culture, even in traditional terms. For instance, when focusing on African Americans in a school setting, Canagarajah (2006) identified that students who code switched their language and dialect usage in class created a divide between their personal dialect and their academic registers, which potentially impacted

self-efficacy. Implications of the divide between cultures include reinforcing negative stereotypes associated with specific dialects and requiring students to "act white" as a way of achieving a "higher standard" according to the externally established hierarchy (assimilating to the Euro-American culture; Young et al., 2018, p. 68). The participants in Canagarajah also stated that they felt as though they were being asked to change themselves or give up a part of their identity by changing their vocabular usage or pronunciation in addition to spending more energy masking a natural accent or dialect instead of focusing on the learning process itself.

Overall, this research indicates that Appalachians may experience similar apprehension and energy wasting when interfacing with other cultural groups. The way that Appalachians report interacting with non-Appalachian people is of particular interest when it comes to the low rates of health care satisfaction and corresponding poor health found in Appalachia (Lefevers, 2019). Regardless, Appalachian Americans face the unique challenge of reconciling identity aspects in order to adopt a beneficial bicultural framework that fosters personal resiliency as also identified other bicultural groups. However, as little current research exits, the question addressed in the following chapters remained focused on how perceived stigma mediates the relationship between bicultural identity and health outcomes for Appalachian females. Based on related research, this hypothesis has ample support for exploration for the context of this study.

Poor Historical Trends of Accessing Resources

Overall, the conversation surrounding discrimination, exclusion, and acculturation is not simply philosophical. For everyday Appalachians, the real-life consequences of unaddressed discrimination are staggering. Chronic discrimination can be seen in the

traditionally underserved nature of a region with exponentially high health care needs and low service utilization and access rates. Even for Appalachian women who access services, high service attrition rates are also concerning. For example, participants in Snell-Rood et al. (2017) recognized that their experience of low-quality mental health care went beyond the difficulty of limited access. These negative experiences reduced the likelihood of accessing future services and reinforced a pervasive sense of depression and a self-perpetuating cycle (Snell-Rood et al., 2017).

Health Outcomes and Implications

For many Appalachians, particularly Appalachian females, the result of limited health care, whether perceived or actual, comes with a high price. Thompson et al. (2021) stated that Appalachian women have higher rates of health risk factors, chronic illness, and increased mortality rates when compared to their non-Appalachian peers. A 2017 report on health disparities in Appalachia reported premature deaths as 25% higher than in the broader U.S. population (Marshall et al., 2017). The report summary stated that Appalachians have poorer health regarding 33 out of the 41 identified health indicators compared to their non-Appalachian peers and that in some regions, this divide can be observed even between counties in the same state (non-Appalachian counties versus Appalachian counties). Suicide and other mental health concerns are significantly elevated for Appalachians, which is proportional in regard to the other identified health care concerns as well (Marshall et al., 2017).

Thompson et al. (2021) reported that 39% of all Appalachian counties do not meet health care standards for the minimum number of primary care providers required for the population. Further, 20% of the counties do not have a community hospital, forcing

residents to travel outside of the county for even medical emergencies. In Thompson et al.'s findings, the physical inaccessibility of health care services is one of many factors potentially involved in the statistical outcomes. For many women, the restrictive nature of the superimposed culture has also silenced their voices and removed them from the narrative and their health care (Thompson et al., 2021). As addressed earlier in this chapter, the issue of marginalization also impacts Appalachian communities on a larger scale as women are predominant connection points between health care and individuals in the community.

Thompson et al. (2021) proposed that for Appalachians who can access less hierarchical, more equality-driven social supports, power can be used in a way that enables them to use their strengths to access services. Appalachian women living with the burden of intersectionality in an invisible culture may need more resources or acculturation desire to engage in the Euro-North American health care system. Still, if providers can provide space for Appalachian females to engage in their own health care needs and decisions through the lens of their unique life experiences, then statistics may change (Thompson et al., 2021).

Hosley (2004) reported that their research grew out of encountering Appalachian individuals (White and people of color) who said they did not talk to their medical providers about traditional or home remedies they used due to a history of being laughed at or made to feel uneducated or stupid. These fears echo similar research indicating that even when Appalachians access services, they are not likely to feel comfortable, safe, or valued by their providers (Starcher et al., 2017; Thompson et al., 2021; Wilson et al., 2012). Historically, Appalachian midwives and "granny women" were the healers of their

communities, holding a leadership position that was deeply respected and essential for their ecosystems (Thompson et al., 2021).

While medicine has advanced, Appalachian females have yet to be empowered to use their long history of being health advocates and leaders in their communities in a way that could change Appalachia's health care narrative. Thompson et al.'s (2021) idea is not unreasonable, as a historical precedent of communities interacting with African American midwives in a culturally and community-grounded approach resulted in higher health care utilization rates in their communities. This emerging approach would also enable Appalachians to break out of the trope of needing to be saved or changed by outsiders to one in which their resiliency and cultural values restore health to Appalachia.

Value Conflict Complications

Statistics leave no room for debate, as Appalachia reports some of the highest rates of physical and mental health concerns in the nation (Lefevers, 2019). However, simply improving access does not seem to comprehensively address the issue, as this chapter has demonstrated in terms of discrimination, perceived stigma, and the related outcomes of these processes. The most notable issue facing Appalachia is an inherent values conflict with the broader United States. Until Appalachians have a voice in being able to determine their own lives and make healthy decisions for themselves, there are few options for correcting the destabilizing travesty that has uprooted many of Appalachia's natural resiliency points.

Appalachia faced harsh conditions and difficulties long before the recent long-term impacts of systematic resource stripping, both of land and cultural factors. However, the core aspects that bring Appalachians a reported sense of pride remain hidden as a

means of protecting them from a world that misrepresents and diminishes the inherent value of Appalachian communities. Until Appalachians can tap into their own resiliency and community strength, the crisis of a lack of resources and underutilization of available resources is likely to continue without change.

The concept of barriers to health care access is especially important for mental health care, as recognizing Appalachian values is necessary for clinicians being able to provide beneficial care to Appalachians (Salyers & Ritchie, 2006). Without ethical adherence to multicultural counseling, mental health services are likely to perpetuate the myth that Appalachians need to evolve and leave behind an outdated or misunderstood culture. While some Appalachians may acculturate and reject Appalachian culture, another subset of Appalachia will continue to self-isolate from services that are not inclusive, welcoming, and affirming of the Appalachian identity.

Summary

This chapter presented a succinct summary of the literature associated with the specific variables explored in this study. The discussion began with solidifying the definition and parameters of Appalachian females in terms of culture and how they appear in current research. The focus then narrowed to the concept of hidden cultural structure in Appalachia, specifically pertaining to the gender role of females inside Appalachian communities. The assumptions and stigma associated with the identity of Appalachian women was then contrasted with the broader Euro-North American perspective. Logically, the vast gaps in the current literature surrounding acculturation (bicultural identity) were explored in this chapter. The visible barriers to lack of access

(real or perceived) to health care and the statistical outcomes concerning poor health in Appalachian were presented as critical outcomes.

Throughout the literature review, care was taken to frame the study within Appalachian, as opposed to approaching the topic from an outsider's viewpoint (either projecting negative judgment or defending against stereotypes). The limited research indicates a wealth of diverse voices that have not yet been heard in Appalachian literature, giving hope for ongoing work to empower Appalachians to approach acculturation with freedom and personal choice. Overall, the literature review aim was to solidify the argument that Appalachian voices must be a part of the solution of restoring Appalachian to health.

CHAPTER 3: RESEARCH METHOD

Overview

This chapter presents the research design and methods used to explore theoretical relationships between Appalachian American female bicultural identity, perceived external stigma, and health care services utilization. The relationship between the variables was explored to extend the literature regarding Appalachian acculturation and perceived barriers to accessing mental health care. This chapter provides a brief explanation of the research purpose, research questions, and resulting hypotheses. The research methodology and data treatment in this study's design context are included as the final two sections of the chapter.

Research Purpose

The purpose of this study was to investigate the relationship between the bicultural identity of Appalachian females and their attaining mental health services, along with the potentially mediating role of perceived discrimination as it relates to this relationship. The study extended the literature by exploring a new model built on research outside of Appalachia regarding acculturation and stigma/discrimination. The study outcome was designed to expand the current scope of Appalachian literature to include acculturation variables and provide helpful information for clinicians or community organizers concerning reducing barriers to Appalachians' access to ethically appropriate, multiculturally based mental health care.

Research Questions and Hypotheses

The following research questions and hypotheses were addressed in this study:

Research Questions:

RQ1: What is the relationship between bicultural identity and health outcomes?

RQ2: What is the relationship between bicultural identity and perceived discrimination?

RQ3: What is the relationship between perceived discrimination and health outcomes?

RQ4: What is the relationship between bicultural identity and health outcomes as mediated by perceived discrimination?

Hypotheses

Hypothesis 1: There is a positive correlation between bicultural identity and health scores.

Hypothesis 2: There is a negative correlation between bicultural identity and perceived discrimination.

Hypothesis 3: There is a negative correlation between perceived discrimination and health outcomes.

Hypothesis 4: Perceived discrimination mediates the relationship between bicultural identity and health outcomes.

Research Design

This study was nonexperimental (no treatment intervention or variable manipulation), time bound, and cross-sectional between subjects in design, as the goal was to measure the relationship strength between the identified variables. Local churches, community centers, and other community-based connections (both in-person and online) were used to recruit study participants. The convenience sample data were designed to be

collected in the researcher's community and extended network. Easily accessible SurveyMonkey-based inventories were available for participants. This allowed for a more significant sample size and, thus, more generalizable findings (Shapiro et al., 2013). Although not all the data were collected with the researcher in the room, participants did have opportunities to reach out with questions before agreeing to participate in the study. The SurveyMonkey platform also allowed participants to provide the required information without personally identifying information such as names, birthdates, addresses, or phone numbers. As the surveys were completed, they were stored via SurveyMonkey as anonymous data points, which provided participant privacy, data protection, and a reduced risk of harm (American Counseling Association, 2014; Shapiro et al., 2013).

Each participant either met with a group of other participants at the chosen location, and the researcher provided the group with informed consent for the study, or they accessed the survey through a digital link that presented the informed consent prior to allowing them to begin the online survey. The informed consent statement (see Appendix A) was given to the participants to review. The participants were given time to ask follow-up questions, read the informed consent, or exit the study before beginning the inventories. For those who agreed to participate, demographic information was collected before the inventories were administered.

The first inventory administered was the Bicultural Identity Integration Scale-Version 2 (BIIS-2), which scores participant responses on a scale of bicultural identity (Huynh et al., 2018). The Perceived Discrimination Scale (PDS) was then administered to assess the lifetime and daily discrimination self-reported by the participants (Williams et

al., 1997). The PDS is in the public domain and is shown in Appendix B. Finally, the 36-Item Short Form Survey (SF-36) was administered to assess a range of holistic well-being items to help indicate an individual who may benefit from health care services but does not use services. The SF-36 is in the public domain and is shown in Appendix C. After participants completed the inventories, the researcher exported the anonymous raw data from SurveyMonkey into software databases for analysis.

Participant Selection

Participants for this study were limited to females 18 years of age and older. Participant exclusionary criteria required that all participants identify as culturally Appalachian, meaning they did not migrate to Appalachia from an outside region, nor did they identify with another cultural identity. Participants were included as culturally Appalachian based on self-report, as Ludke et al. (2010) established as appropriate in terms of maintaining research integrity. Participants were asked questions to ascertain their current connection to physical and mental health services, but no participants were excluded from the study based on their answers to these questions. The study sought to identify data from groups not traditionally encountered in Appalachian research associated with health care; however, comparison between groups that access care and those that do not were a focus of this study.

The participants were collected from churches, community centers, and local communities in Central Appalachia. Because of social media, the participant pool was also increased to include a network that extended throughout the entire Appalachian range. Regardless of whether the researcher met with the participants in person or if they were recruited digitally, all participants received informed consent.

The purpose of limiting data collection to a convenience sample of participants in the researcher's community or connected by networks from this origin point was to control for the established issues of outsider skepticism and potential code switching. As a native Appalachian, the researcher was able to reduce possible confounding variables by self-identifying as an Appalachian American female and collecting from locations in her home region. The target number of participants was set to 150–300 individuals to increase the study's statistical power and provide meaningful data while limiting the impact of potential confounding variables or study attrition rates.

Instrumentation

Demographic Information

Participants were asked traditional demographic questions on gender, age, race/ethnicity, sexual orientation, relationship status, religious affiliation, mental health care history, health care status, educational attainment level, housing status, annual income, and employment status. Exclusionary criteria questions comprised self-reported Appalachian identity, gender, and age.

Bicultural Identity Integration Scale-2

The BIIS-2 is a 19-item scale with two subscales: Cultural Harmony Versus Conflict, with 10 items, and Blendedness Versus Compartmentalization, with nine items (Huynh et al., 2018). The BIIS-2 is a mixture of positively and negatively worded items. For example, "I feel torn between _____ and American cultures" is a negative or reverse-coded item on the Cultural Harmony subscale. A positive item example from the Cultural Blendedness subscale is "I feel _____ and American at the same time" (Huynh et al., 2018).

In the initial development of the BIIS-2, Huynh et al. (2018) stated that the inventory's internal consistency was adequate, with demonstrated internal consistency. Specifically, Cronbach's alphas were .71–.82 for the BIIS-1's Cultural Harmony subscale and .62–.72 for the Cultural Blendedness subscale. Item reliability was documented as .86/.81 and test–retest as .77/.81.

For the present study, all BIIS-2 questions with blanks were filled in with Appalachian, as shown in the following list of questions:

- I feel caught between the Appalachian and American cultures.
- I do not feel trapped between the Appalachian and American cultures.
- I feel conflicted between the American and Appalachian ways of doing things.
- I find it easy to balance both Appalachian and American cultures.
- I feel torn between Appalachian and American cultures.
- I feel that my Appalachian and American cultures are incompatible.
- I find it easy to harmonize Appalachian and American cultures.
- I feel Appalachian-American.
- I feel Appalachian and American at the same time.
- I relate better to a combined Appalachian-American culture than to Appalachian or American culture alone.
- I cannot ignore the Appalachian or American side of me.
- I do not blend my Appalachian and American cultures.
- I keep my Appalachian and American cultures separate.

Perceived Discrimination Scale

The PDS is a self-report survey comprising 20 items. Eleven are categorized by the Lifetime Discrimination scale, and nine are labeled on the Daily Discrimination scale (Williams et al., 1997). The information gained from this inventory provided necessary data regarding how the participants categorize their identities, along with how they or they may expect others to perceive their identities in terms of externally based stigma.

36-Item Short Form Survey

The SF-36 is a self-report survey that assesses a range of holistic well-being items. The purpose of administering this survey was to record each participant's self-reported physical and mental well-being. The information allowed analysis to determine if there was a gap between the perceived need for health care (poor health) and reported access to the appropriate services.

Ethical Considerations

The study design and implementation adhered to the regulations and standards described by Liberty University's institutional review board (IRB) and the American Counseling Association's (2014) ethical guidelines. Data were not collected or stored with identifying information to reduce the risk for all participants. All data collected by the study were anonymous and cannot be connected to any individual participant.

Based on the nature of this exploratory research, there was little to no personal risk of harm to the study participants. The information collected did not include identifying information from participants, and care was taken to eliminate collecting any sensitive data, including IP addresses. In addition, all participants were provided local mental health services information, including outpatient referral possibilities and crisis

intervention services, in case any participant reacted to the administered inventories with a crisis response or increased self-awareness of counseling needs.

Research Procedures

The study proposal was submitted to Liberty University's IRB for approval before data collection began. The data were collected using SurveyMonkey. Informed consent was given to each participant to read, and during in-person groups, the researcher also reviewed the informed consent verbally before the inventories were self-administered via SurveyMonkey. All participants were informed of how the data would be collected and stored, along with data protection and privacy steps to ensure anonymity, with only the researcher and her committee having access to the original data. It was explained that the inventories would assess their bicultural identities along a spectrum, their perceptions of experienced stigma, and a self-report of holistic health and basic demographic information.

Finally, all participants were informed that the study was voluntary and that there was no compensation or personal benefits for agreeing to participate and completing the inventories. The participants were informed that they could exit the surveys and the study at any time during data collection. Once the data were collected, their anonymous nature meant that the researcher could not remove any data after they were submitted because it would be impossible to identify the specific participant's data. Overall, the participants were aware that there was minimal to no risk involved in the study.

Data Processing and Analysis

The raw data were exported from SurveyMonkey and uploaded and aggregated in PostgreSQL. Summary analysis was completed with SPSS V27 with the PROCESS

macro for SPSS (A. F. Hayes, 2017). Only the complete raw data were downloaded from SurveyMonkey, with all incomplete datasets not included in this download. Upon uploading the raw data, the screening process removed participants who met exclusionary criteria. One outlier fell significantly beyond the normal distribution of the sample and was removed for data integrity. For the study results, Pearson's correlation coefficients and a mediation analysis were the primary assessment methodology.

Scoring and Coding Inventory Responses

The procedure for coding and scoring the responses by inventories followed the following standard procedures through using PostgreSQL. This chapter details the raw data coding that was conducted prior to the statistical analysis.

Perceived Discrimination Scale Coding Procedure

The PDS consists of two subscales: the Daily Discrimination Scale, which measures the likelihood of perceived stigma during a participant's normal social interactions, and the Lifetime Discrimination Scale, which measures the number of stigma-based interactions participants have encountered during their lifetime.

The Lifetime Discrimination subscale (Questions 1–11) constitutes the first aspect of the overall perceived stigma score. This scale quantifies the number of negative stigma interactions respondents indicate and adds it to each respondent's total item scale score as a negative occurrence score. These are fill-in-the-blank questions such as "You were discouraged by a teacher or advisor from seeking higher education," "You were denied a scholarship," and "You were not hired for a job." Respondents write the number of times each event occurred next to each question. This subscale's score is calculated by

summing the number of items to which the respondent answered occurring one or more times.

36-Item Short Form Survey

The SF-36 is self-report instrument consisting of generic, easy to understand quality of life measures. Respondents are asked general questions regarding their health. The SF-36 uses various scales to report results. More details on the SF-36 and the scales used for reporting results from the SF-36 are in Appendix C.

Bicultural Identity Scale

The BIIS-2 bicultural identity score quantifies the participant response for each item within the bicultural identity index using a correlated scale based on degrees of how strongly the participant identifies as bicultural. Answers indicating the strongest level of biculturalism receive the highest possible score within the item scale and answers indicating the weakest levels of biculturalism receive the lowest score. The item scale starts at 0 (representing the lowest level of biculturalism) and increases in increments of 1 for each increasing degree of biculturalism until the answer indicating the highest level of biculturalism within the scale is reached. The sum of all of the index scores constitutes the participant's overall bicultural score. Some items on the BIIS-2 are reverse scored per the scoring scale shown in Table 1. The scoring method for each item in the BIIS-2 is shown in Table 2.

Table 1

Bicultural Identity Scale 2 Scoring Scale

Response	Normal score	Reverse score
Strongly agree	4	0
Agree	3	1
Neither agree nor disagree	2	2
Disagree	1	3
Strongly disagree	0	4

Table 2

Bicultural Identity Scale 2 Scoring Method

Bicultural identity item	Scoring method
I feel caught between the Appalachian and American cultures.	Reverse
I feel like someone moving between two cultures.	Reverse
Being bicultural means having two cultural forces pulling on me at the same time.	Reverse
I do not feel trapped between the Appalachian and American cultures.	Normal
I feel conflicted between the American and Appalachian ways of doing things.	Reverse
I find it easy to balance both Appalachian and American cultures.	Normal
I rarely feel conflicted about being bicultural.	Normal
I feel torn between Appalachian and American cultures.	Reverse
I feel that my Appalachian and American cultures are incompatible.	Reverse
I find it easy to harmonize Appalachian and American cultures.	Normal
I feel Appalachian-American.	Normal
I feel Appalachian and American at the same time.	Normal
I relate better to a combined Appalachian-American culture than to Appalachian or American culture alone.	Normal
I feel part of a combined culture.	Normal
I cannot ignore the Appalachian or American side of me.	Normal
I do not blend my Appalachian and American cultures.	Reverse
I keep my Appalachian and American cultures separate.	Reverse

Summary

This chapter began with the purpose of the study before presenting the research questions and hypotheses. The study design was subsequently introduced in depth, with details about participant selection procedures, instruments, ethical considerations, and data collection, storage, and analysis. Data analysis results are presented in Chapter 4.

CHAPTER 4: RESULTS

Overview

The purpose of this study was to explore the relationships between bicultural identity, perceived stigma, and access to health care. There was a particular focus on whether perceived stigma mediated the relationship between bicultural identity and access to health care. The corresponding model proposed that perceived stigma would mediate the relationship between bicultural Appalachian identity and health care access.

A sample of 183 participants who identified as female, Appalachian, and over 18 years of age was analyzed for this study. The following measures were administered: the BIIS-2, which measures bicultural identity and integration; the PDS, an assessment of daily and lifetime discrimination, and the SF-36, an instrument that assesses a range of holistic well-being items. All participants completed a demographic questionnaire in addition to questions about their bicultural identity, perceived stigma, and overall emotional and physical health. As a part of the demographic questionnaire, participants also answered questions on their current access to primary care and mental health providers, along with their current satisfaction of care.

This chapter details the analysis used to explore the data points and to determine the validity of the hypotheses. The chapter also includes an overall summary of the results of the survey responses.

Research Questions and Hypotheses

The following research questions and hypotheses were addressed in this study:

Research Questions:

RQ1: What is the relationship between bicultural identity and health outcomes?

RQ2: What is the relationship between bicultural identity and perceived discrimination?

RQ3: What is the relationship between perceived discrimination and health outcomes?

RQ4: What is the relationship between bicultural identity and health outcomes as mediated by perceived discrimination?

Hypotheses

Hypothesis 1: There is a positive correlation between bicultural identity and health scores.

Hypothesis 2: There is a negative correlation between bicultural identity and perceived discrimination.

Hypothesis 3: There is a negative correlation between perceived discrimination and health outcomes

Hypothesis 4: Perceived discrimination mediates the relationship between bicultural identity and health outcomes.

Data Screening and Coding

Anonymous data were collected from 183 participants who remained after the exclusionary criteria were applied to the raw data. Survey responses from individuals who did not meet the criteria of identifying as Appalachian, female, and over 18 years of age were eliminated. The study parameters were also set to exclude data sets from surveys in which demographic responses were missing or variable responses were present. As a result, the raw data analyzed only included complete responses from participants who were eligible to be included in this study, per the scope presented in

Chapter 3. Likewise, the data were coded for analysis per the procedures detailed in Chapter 3

Participant Demographics

The age range of the 183 participants was 18–65+ years, with 46% of respondents 25–44 years of age. All included participants stated that they identified as Appalachian. Table 3 details the overall demographic information for the 183 participants.

Table 3

Participant Demographics

Characteristic	*N*	%
Age range (in years)		
18–24	23	12.57
25–34	45	24.59
35–44	39	21.31
45–54	32	17.49
55–64	29	15.85
65+	15	8.20
Ethnicity		
African American	0	0
American Indian or Alaska Native	1	0.55
Asian American	1	0.55
Caucasian/White	176	96.17
Hispanic/Latino	1	0.55
Other	4	2.19
Sexual orientation		
Asexual	10	5.46
Bisexual	11	6.01
Gay	2	1.09
Heterosexual	151	82.51
Lesbian	3	1.64
Pansexual	3	1.64
Queer	3	1.64
Relationship status		
Cohabitating with significant other	18	9.84
Divorced	14	7.65
Married	106	57.92
Other	1	0.55
Separated	3	1.64
Single, never married	34	18.58
Widowed	7	3.83
Living status		
Cohabitation with homeowner	26	14.20
Homeowner	123	67.21
Renter	33	18.03
Other	1	0.55

Characteristic	*N*	%
Educational attainment		
Bachelor's degree	47	25.68
Doctorate or higher	12	6.56
High school	20	10.93
Master's degree	44	24.04
Other	6	3.28
Some college	41	22.40
Some high school	20	10.93
Trade school	10	5.46
Employment status		
Disabled, not able to work	10	5.46
Employed, working full time	115	62.84
Employed, working part time	22	12.02
Not employed, looking for work	6	3.28
Not employed, not looking for work	15	8.20
Retired	15	8.20
Household income (in dollars)		
0–24,999	13	7.10
25,000–49,999	44	24.04
50,000–74,999	47	25.68
75,000–99,999	23	12.57
100,000–124,999	14	7.65
125,000–149,999	18	9.84
150,000–174,999	11	6.01
175,000–199,999	4	2.19
200,000+	9	4.92
Religious affiliation		
Atheist or agnostic	27	14.75
Buddhist	0	0
Christian or Catholic	142	77.60
Hindu	0	0
Jewish	0	0
Muslim	0	0
Pagan	4	2.19
Other	10	5.46

Participants were also asked to respond to questions regarding their current access to health care. These responses are shown in Table 4.

Table 4

Participant Health Care Access

Characteristic	*n*	%
Primary care physician		
Yes	154	84.15
No	29	15.85
Mental health provider		
Yes	60	32.79
No	123	67.21
Mandated mental health		
Yes	5	2.73
No	178	92.27
Health care satisfaction		
Very satisfied	33	18.03
Satisfied	77	42.08
Neither satisfied nor dissatisfied	48	26.23
Dissatisfied	23	12.57
Very dissatisfied	2	1.09

The frequency distribution of participants by state of origin (birth state) encompassed 10 of the 13 Appalachian-designated states, with a significant majority reporting a birth origin in Central Appalachia. See Table 5 for a specific breakdown of this demographic information.

Table 5

State of Origin Demographics

State	*n*	%
Georgia	2	1.09
Kentucky	9	4.92
New York	2	1.09
North Carolina	8	4.37
Ohio	8	4.37
Pennsylvania	7	3.83
South Carolina	2	1.09
Tennessee	25	13.66
Virginia	104	56.83
West Virginia	16	8.74

Sample Means

The minimum score, maximum score, mean, and standard deviation were calculated from the raw data for the identified model variables used in this study. The summary of results is shown in Table 6.

Table 6

*Descriptive Statistics for Model Variables (*N = *183)*

Variable	Range	Minimum	Maximum	*M*	*SD*
Bicultural identity score	45	20	65	43.33	7.99
Perceived stigma score	71	0	71	15.28	13.70
Physical health score	50	6	56	40.79	11.29
Emotional health score	42	5	47	26.42	10.32

Data Analysis

Data were imported and aggregated in PostgreSQL, and summary analysis was completed in SPSS 27 with the PROCESS macro for SPSS (A. F. Hayes, 2017). Bivariate correlations were conducted between the variables of bicultural identity and emotional health, bicultural identity and perceived stigma, and perceived stigma and emotional health. Bivariate correlations were also conducted between bicultural identity and physical health and perceived stigma and physical health. A mediation model (PROCESS Model 4; A. F. Hayes, 2017) was the focus of this study; however, one moderated mediation model (PROCESS Model 7; A. F. Hayes, 2017) was tested to explore potential covariate relationships. To further explore potential relationships, the models were also used to analyze any differences in results among participants regarding SES (based on income demographics) and educational attainment. The rest of Chapter 4 details the results from these analyses.

Analytically Explored Correlations

Bicultural Identity and Perceived Stigma

The relationship between bicultural identity, as measured by the BIIS-2, and perceived stigma, as measured by the PDS, was explored by completing a Pearson's *r* correlation test. The findings were congruent with the hypothesis and the supporting literature, as the relationship was found to be a highly significant, negative correlation, $r = -0.479$, $p < 0.001$. These findings indicated that a higher bicultural identity (Appalachian–American harmony) is associated with lower levels of perceived stigma.

Perceived Stigma and Physical Health

The relationship between perceived stigma, as measured by the PDS, and physical health, as measured by the SF-36, was explored by completing a Pearson's *r* correlation test. The findings were congruent with the hypothesis and the supporting literature, as the relationship was found to be a highly significant, negative correlation, $r = -0.325$, $p < 0.001$. These findings indicated that a higher perception of stigma is associated with lower levels of physical health.

Perceived Stigma and Emotional Health

The relationship between perceived stigma, as measured by the PDS, and emotional health, as measured by the SF-36, was explored by completing a Pearson's *r* correlation test. The findings were congruent with the hypothesis and the supporting literature, as the relationship was found to be a highly significant, negative correlation, $r = -0.436$, $p < 0.001$. These findings indicated that a higher perception of stigma is associated with lower levels of emotional health.

Bicultural Identity and Physical Health

The relationship between bicultural identity, as measured by the BIIS-2, and physical health, as measured by the SF-36, was explored by completing a Pearson's *r* correlation test. The findings were congruent with the hypothesis and the supporting literature, as the relationship was found to be a highly significant, positive correlation, $r = 0.163$, $p = 0.027$. These findings indicate that a higher bicultural identity score is associated with higher levels of physical health.

Bicultural Identity and Emotional Health

The relationship between bicultural identity (as measured by BIIS-2) and emotional health (as measured by SF-36) was explored by completing a Pearson's *r* correlation test. The findings were congruent with the hypothesis and the supporting literature, as the relationship was found to be a highly significant, positive correlation, $r = 0.334$, $p < .001$. These findings indicated that a higher bicultural identity score is associated with higher levels of emotional health.

Physical Health and Emotional Health

The relationship between physical health (as measured by SF-36) and emotional health (as measured by SF-36) was explored by completing a Pearson's *r* correlation test. The findings were congruent with the hypothesis and the supporting literature, as the relationship was found to be a highly significant, positive correlation, $r = 0.663$, $p < .001$). These findings indicated that higher physical health is associated with higher levels of emotional health. Table 7 shows the results of these analyses.

Table 7

Pearson's r, Means, and Standard Deviations

Construct	*M*	*SD*	Cronbach's α	Correlation coefficients Pearson's *r*					
				BI	PS	PH	EH	EA	HI
Bicultural identity (BI) score	42.34	7.996	0.819	1	–	–	–	–	–
Perceived stigma (PS) score	15.28	13.701	0.936	–0.479**	1	–	–	–	–
Physical health (PH) score	40.78	11.291	0.738	0.163*	–0.325**	1	–	–	–
Emotional health (EH) score	26.43	10.326	0.886	0.334**	–0.436**	0.663**	1	–	–
Educational attainment (EA)	4	2.83	–	0.082	–0.017	0.160	0.113	1	–
Household income (HI)	4	2.83	–	–0.001	–0.108	0.058	0.021	0.426**	1

*Correlation is significant at the .05 level (2-tailed).
**Correlation is significant at the .01 level (2-tailed).

It is also significant to note that when each of the listed scales in Table 5 was analyzed in terms of their internally itemized responses, the alpha coefficient suggested that the items for each scale (BIIS-2, PDS, SF-36) had relatively high internal consistency ($\alpha > 0.70$).

Educational Attainment and Household Income as Covariates With Perceived Stigma

To further explore the variable relationships, Pearson's *r* correlation tests were conducted to examine the covariates (educational attainment and household income; see Table 7. The results indicated that educational attainment had no correlational

relationship with perceived stigma, $r = –.017$, $p > .05$, and household income had no bivariate relationship with perceived stigma, $r = –.108$, $p > .05$. These results suggested that participant educational attainment and household income do not have a direct impact on perceived stigma.

Testing Model 1

Model 1 encompassed Hypothesis 4. As defined by this study, Hypothesis 4 stated that perceived discrimination mediates the relationship between bicultural identity and health outcomes, which include physical and mental health outcomes. By way of review, perceived discrimination was measured by the PDS, bicultural identity by the BIIS-2, and health outcomes (physical and mental) by the SF-36.

The mediation model (A. F. Hayes's Model 4) was analyzed for this study. To test the mediation model, A. F. Hayes's (2017) conditional process analysis PROCESS macro for SPSS was used twice, once with physical health as the outcome variable and the second time as emotional health as the outcome model. The mediation model used bicultural identity (predictor variable) and health scores (outcome variable), as the proposed mediation was selected as perceived stigma. Figure 4 shows the hypothesized theoretical model, and the statistical model is shown in Figure 5.

Figure 4

Hypothesized Theoretical Model 1

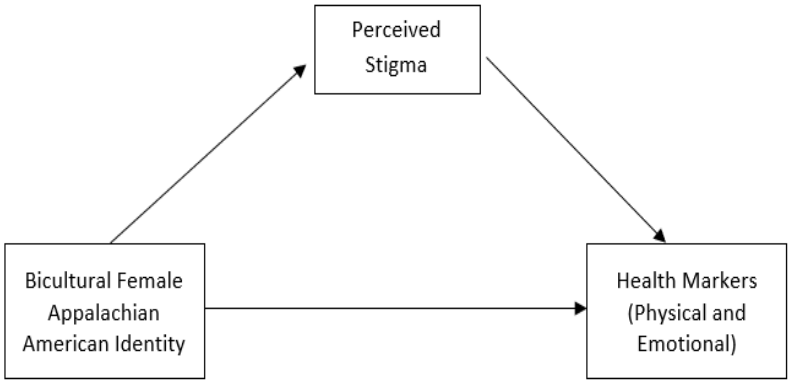
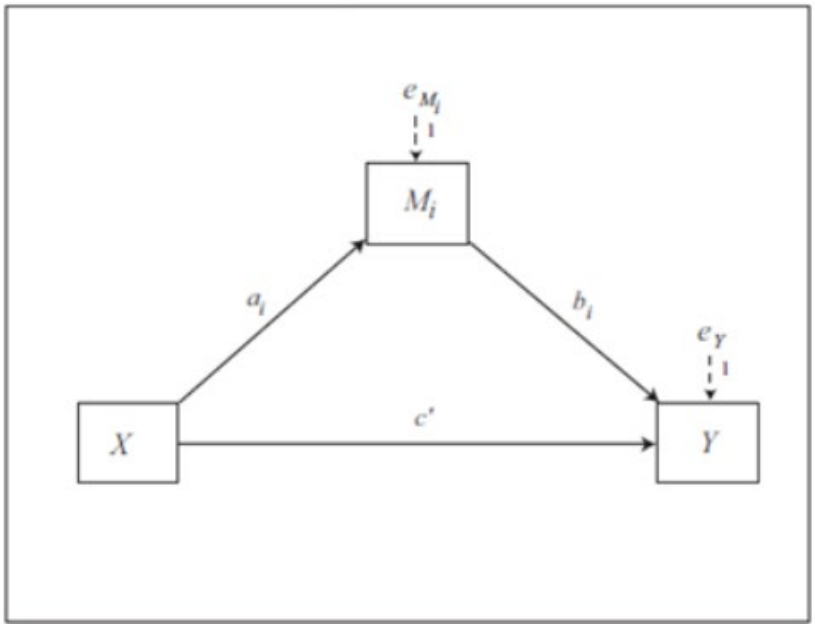


Figure 5

Hypothesized Statistical Model 1



The Model 4 PROCESS analysis (A. F. Hayes, 2017) indicated that bicultural identity had no relationship ($p > .05$) with physical health outcomes, $b = –0.015$, $SE = 0.113$, 99% CI [–0.239, 0.208], and no relationship ($p > .05$) with emotional health outcomes, $b = 0.188$, $SE = 0.098$, CI [–0.005, 0.382]. These findings denoted that an individual with an increased bicultural identity had no direct relationship with health outcomes. However, perceived stigma was found to have a significant negative relationship ($p < .001$) with physical health outcomes, $b = –0.274$, $SE = 0.066$, CI [–0.405, –0.143], and emotional health outcomes, $b = –0.280$, $SE = 0.057$, CI [–0.392, –0.167]. Perceived stigma and bicultural identity were also found to have a direct, negative relationship, $b = –0.833$, $SE = 0.112$, CI [–1.054, –0.613]. These findings are summarized in Table 8.

Table 8

Bicultural Identity and Health Outcomes Mediated by Perceived Stigma

Source	*R*	R^2	*MSE*	*F*	*B*	*SE*	*t*	*p*	99% CI	
									LL	UL
Perceived stigma	.479	.247	143.632	3, 19.617 = 179.000				< .001		
Bicultural identity					–0.833	0.112	–7.471	< .001	–1.054	–0.613
Education level					0.712	0.609	1.169	0.244	–0.489	1.913
Household income					–0.941	0.466	–2.019	0.045	–1.861	–0.021
Physical health	.363	.132	113.195	4, 6.741 = 178.000				< .001		
Bicultural identity					–0.015	0.113	–0.136	0.892	–0.239	0.208
Perceived stigma					–0.274	0.066	–4.130	< .001	–0.405	–0.143
Education level					1.243	0.542	2.291	0.023	0.172	2.313
Household income					–0.289	0.419	–0.690	0.491	–1.115	0.537
Emotional health	0.472	0.223	84.689	4, 12.778 = 178.000				< .001		
Bicultural identity					0.188	0.098	1.920	0.056	–0.005	0.382
Perceived stigma					–0.280	0.057	–4.879	< .001	–0.392	–0.167
Education level					0.797	0.469	1.699	0.091	–0.129	0.723
Household income					–0.354	–0.362	–0.977	0.330	–1.068	0.361

It is also important to note the direct and indirect effects as described for the analysis, as there is an indication that supports the presence of the mediated model (PROCESS 4, A. F. Hayes, 2017) that was proposed in this study. See Table 9 for details.

Table 9

Mediation Model Effects

Model	Effect	*SE*	*t*	*p*	99% CI	
					LL	UL
Bicultural identity (X) and emotional health (Y) effects						
Total effects	0.422	0.091	4.637	0.000	0.242	0.601
Direct effects	0.188	0.098	1.920	0.056	–0.005	0.382
Indirect effects	0.233	0.054	–	–	0.137	0.346
Bicultural identity (X) and physical health (Y) effects						
Total effects	0.213	0.103	2.059	0.41	0.009	0.417
Direct effects	–0.015	0.113	–0.136	0.892	–0.239	–0.208
Indirect effects	0.228	0.070	–	–	0.101	0.372

Socioeconomic Status and Educational Attainment as Covariates

Pearson's *r* correlation tests were used to evaluate the potential relationship of the covariates (SES and educational attainment) in the PROCESS Model 7, as described by A. F. Hayes (2017). The results of the exploratory analysis indicated that there was no significant relationship between educational attainment, $b = 0.797$, $.05 > p > .001$, and household income, $b = –0.354$, $p > 0.05$, with emotional health as the outcome variable. Likewise, there was no significant relationship between educational attainment, $b = 1.243$, $.05 > p > .001$, or household income, $b = –0.289$, $p > .05$, with physical health as the outcome variable.

Testing Model 2

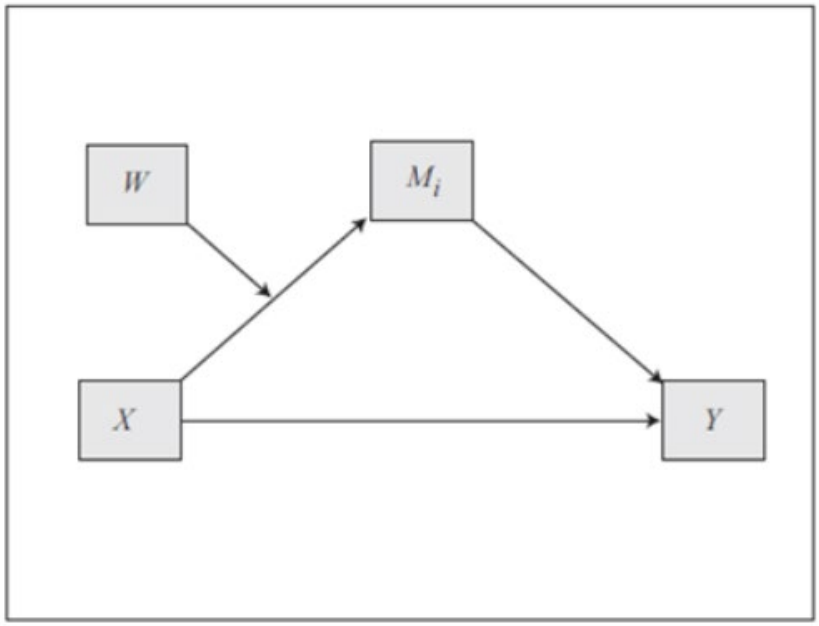
Model 7 PROCESS (A. F. Hayes, 2017) was selected to explore other possible answers for Hypothesis 4, which stated that perceived discrimination mediates the relationship between bicultural identity and health outcomes, which include physical and

mental health outcomes; however, SES-associated variables were also identified as potential moderators in the relationship between bicultural identity and perceived stigma. By way of review, perceived discrimination was measured by the PDS, bicultural identity by the BIIS-2, and health outcomes (physical and mental) by the SF-36.

A. F. Hayes's moderated-mediation model (Model 7) was used for this extended analysis. To test the mediation model A. F. Hayes's conditional process analysis PROCESS macro for SPSS was used twice for each moderator, once with physical health as the outcome variable and the second time with emotional health as the outcome model. The first moderated mediation model moderated the relationship between bicultural identity and perceived stigma. In this model, educational attainment and household income were both explored as the moderator. The initial mediation model used bicultural identity (the predictor variable) and health scores (the outcome variable) as the proposed mediation was selected as perceived stigma. See Figure 6 for the hypothesized statistical model.

Figure 6

Hypothesized Statistical Covariant Model



For household income, the Model 7 PROCESS analysis indicated that bicultural identity had no relationship ($p > .05$) with physical health outcomes, $b = –0.007$, $SE =$ 0.113, 99% CI [–0.229, 0.215], and a very weak relationship ($.05 > p > .001$) with emotional health outcomes, $b =$ 0.199, $SE = 0.098$, CI [0.006, 0.391]. These findings denoted that an individual with an increased bicultural identity has no direct relationship with health outcomes. However, as in the previous model (Model 4 PROCESS), perceived stigma was found to have a negative relationship ($p < .05$) with physical health outcomes, $b = –0.267$, $SE = 0.066$, CI [–0.396, –0.138], and emotional health outcomes, $b = –0.272$, $SE = 0.057$, CI [–0.384, –0.160]. Perceived stigma and bicultural identity were also found to have a direct, negative relationship ($p < .01$), regardless of the moderator (income level and education attainment) or outcome variables (physical and

emotional health). However, in the model with physical health as the outcome, there was no significant relationship observed to moderate (income level and educational attainment) the relationship between bicultural identity and perceived stigma. Table 10 is a summary of these results.

Table 10

Moderated-Mediated Model

Source	*R*	R^2	*MSE*	*F*	*B*	*SE*	*t*	*p*	99% CI	
									LL	UL
W: Household income										
Perceived stigma	.507	.257	142.665	4, 15.365 = 178.000				< .001		
Bicultural identity (1)					–1.046	0.181	–5.780	< .001	–1.403	–0.689
Household income (2)					–4.106	2.213	–1.880	0.062	–8.528	0.207
Education level					0.842	0.613	1.373	0.171	–0.368	2.051
Interaction: 1 x 2					0.075	0.050	1.488	0.139	–0.024	0.174
Physical health	.359	.129	112.863	3, 8.855 = 179.000				< .001		
Bicultural identity					–0.007	0.113	–0.063	0.950	–0.229	0.215
Perceived stigma					–0.267	0.066	–4.078	< .001	–0.396	–0.138
Education level					1.080	0.488	2.214	0.028	0.117	2.043
Emotional health	0.468	0.219	84.668	3, 16.778 = 179.000				< .001		
Bicultural identity					0.199	0.098	2.037	0.043	0.006	0.391
Perceived stigma					–0.272	0.057	–4.787	< .001	–0.384	–0.160
Education level					0.598	0.423	1.415	0.159	–0.236	1.432
W: Education level										
Perceived stigma	.501	.251	143.845	4, 14.874 = 178.000				< . 001		
Bicultural identity (1)					–1.075	0.303	–3.550	< .001	–1.672	–0.447
Education level (2)					–1.555	2.714	–0.573	0.567	–6.912	3.801
Household income					–0.933	0.467	–2.000	0.047	–1.854	–0.013
Interaction: 1 x 2					–0.056	0.066	0.857	0.393	–0.073	0.186
Physical health	.325	.106	115.881	3, 7.080 = 179.000				< .001		
Bicultural identity					0.016	0.114	0.142	0.887	0.209	0.241
Perceived stigma					–0.361	0.067	–3.899	< .001	–0.393	–0.129

Source	*R*	R^2	*MSE*	*F*	*B*	*SE*	*t*	*p*	99% CI	
									LL	UL
Household income					0.127	0.381	0.334	0.739	–0.625	0.880
Emotional health	0.459	.211	85.582	3, 15.920 = 179.000				< .001		
Bicultural identity					0.209	0.098	2.131	0.032	0.015	0.402
Perceived stigma					–0.272	0.057	–4.724	< .001	–0.385	–0.158
Household income					0.087	0.328	–0.264	0.792	–0.733	0.560

Overall, the findings suggest that neither household income nor education attainment moderates the mediated model that was described previously in this chapter. However, there were notable outliers that did indicate interesting anomalies in the data set. For the subset of Appalachian females who identified as having a master's degree, there were significant intergroup findings, as shown in Table 11. The correlation did not extend to other educational attainment categories and was limited only to this specific data subset.

Table 11

Perceived Stigma by Master's Degree Subset

Education level	Average stigma score	Sample distribution
Some high school	48.67	3
High school	16.45	20
Trade school	13.60	10
Some college	11.83	41
Bachelor's degree	11.81	47
Master's degree	20.50	44
Doctorate or higher	14.83	12
Other	10.83	6

The notable experiences of Appalachian females with a master's degree level of educational attainment are highlighted in Figures 7 and 8.

Figure 7

Lifetime Discrimination by Category for Participants With Master's Degrees

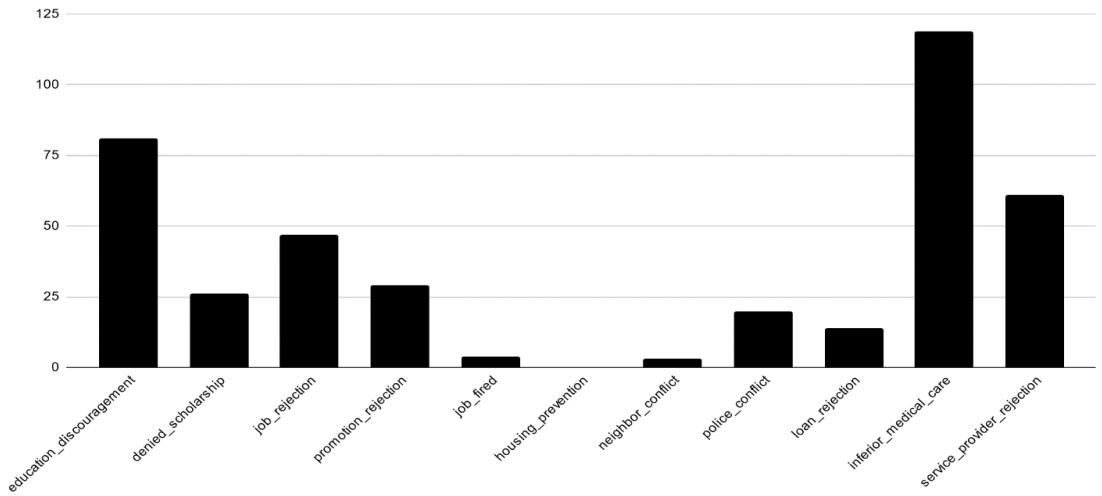
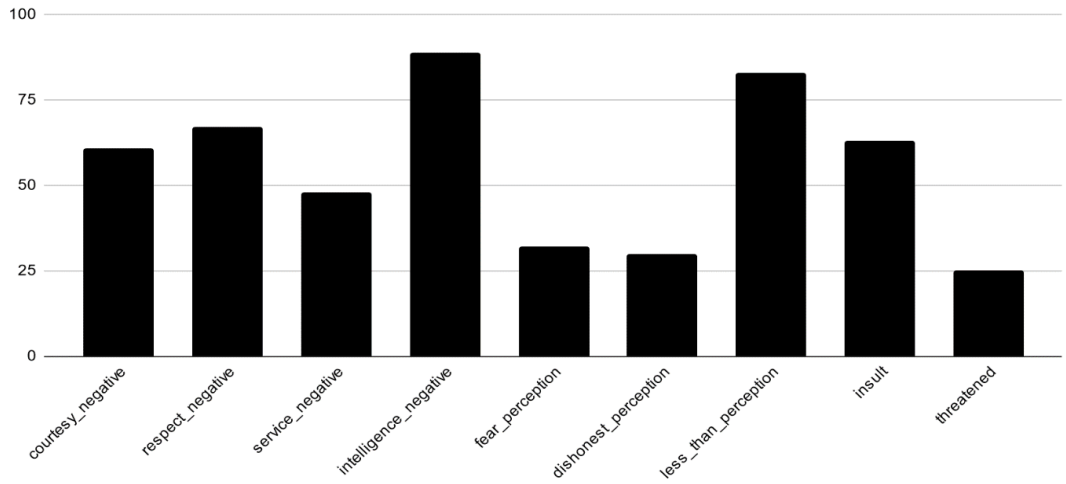


Figure 8

Daily Discrimination by Category for Participants With Master's Degrees



Although no identified moderation mediation relationships were found for Model 2, it is important to note that there were significant findings, as documented in this chapter's analysis presentation. However, their implications are beyond this study's scope.

Summary

The study consisted of 183 adult female participants who identified as Appalachian. Bivariate correlations were used to address the research questions. The first research question was, What is the relationship between bicultural identity and health outcomes? The first hypothesis was supported, as demonstrated by the study results, which indicated a significant positive correlation between bicultural identity and both physical and health outcomes.

The second question was, What is the relationship between bicultural identity and perceived discrimination? The hypothesis was supported, as demonstrated by the study results, which indicated a strong negative correlation between bicultural identity and perceived discrimination. The third research question was, What is the relationship between perceived discrimination and health outcomes? Hypothesis 3 was supported by the study results, which indicated a strong negative correlation between perceived discrimination and both physical and emotional health outcomes.

Finally, the fourth research question addressed was, What is the relationship between bicultural identity and health outcomes as mediated by perceived discrimination? Hypothesis 4 was supported by the study results, which indicated a strong mediation model (Model 4, as defined by A. F. Hayes, 2017).

Results did not indicate the likelihood of a moderated mediation model (Model 7, as defined by A. F. Hayes, 2017). However, when SES and educational attainment were also explored as covariates, the results indicated that there were abnormalities in the education data distribution. This finding indicated that there are potential variables not accounted for in this study that may impact a potential moderated mediation of the proposed model. The complete results and their implications are discussed more extensively in Chapter 5.

CHAPTER 5: DISCUSSION

Overview

As detailed in earlier chapters, this study was developed from overlapping literature and historically documented trends in Appalachia. The culture indicated in this study has origins from a blend of immigrant populations that include the Scots-Irish, Polish, African, and Indigenous Nations groups (Duggan, 2002; Mathews, 1996; Prajznerova, 2003; Turner & Cabell, 1985). From the blending and intermixing of the groups who made Appalachia home arose a distinct cultural and value-based worldview (Berg, 1994; Michael Maloney & Associates, 2003; Payne, 1996).

The emergence of Appalachian culture has not typically been met with acceptance. Appalachia has historically experienced stigma from non-Appalachian, Euro-North American perspectives, which has continued to isolate and impact resource access across the region (Bailey, 1997; Engelhardt, 2005; Harkins, 2004; Knight et al., 2003). The documented stigma is also demonstrated in limited research regarding Appalachians' low access or low quality of health care (ARC, 2017; Snell-Rood et al., 2017; Thompson et al., 2021). These variables were identified as noteworthy, and a subsequent statistical relationship was proposed and explored in this study.

The proposed statistical relationship and theoretical framework was used to explore the relationships between bicultural identity (Appalachian American females), perceived stigma, and physical and emotional health outcomes. To explore these potential relationships, four research questions were identified in the development of this study. The first research question was designed to explore the relationship between bicultural identity and physical and emotional health outcomes. The second research question

examined the relationship between bicultural identity and perceived discrimination. The third research question was designed to focus on the relationship between perceived discrimination and health outcomes. The fourth research question explored whether or how significantly perceived discrimination mediated the relationship between bicultural identity and physical and emotional health outcomes. Finally, during data analysis, the research also explored the potential of a moderated mediation model, using educational attainment and income level (SES indicators).

Chapter 4 provided a demonstration of the data analysis and study findings. Chapter 5 elaborates on the significance of the results. Research questions are addressed in the order of their presentation in Chapter 3. This chapter also explores possible study implications, including clinically related inferences that arose from the data. The discussion also addresses study limitations and future research recommendations.

Discussion of Findings

The study participants were recruited from a convenience sample and directed to complete a SurveyMonkey questionnaire. Only completed surveys were recorded by SurveyMonkey, eliminating all incomplete or partial surveys. Once the raw data were downloaded and screened for exclusionary criteria, 183 participants remained in the final raw data set and were used for the subsequent data analysis. All 183 participants identified as female, Appalachian, and 18 years of age or older. Statistically, the participants ranged in age between 18 and 65+ years and predominantly identified as White (96.17%), married (57.92%), and heterosexual (82.51%). In addition, most participants identified as homeowners (67.21%) who had full-time jobs (62.84%).

Participants were also primarily Christian or Catholic (77.6%). However, participants indicated significant diversity in terms of educational attainment and household income.

This chapter is a review of the identified research questions. Additional analysis with covariates is discussed in more detail. For each research question analysis, the corresponding models and study findings are discussed and explored in terms of potential implications. While this study's findings indicated statistically significant results, the results cannot be discussed in terms of causation. The relationships discussed imply that the hypotheses were supported, but it is important to consider the ranges of variability discovered during data analysis. For each relationship, there may be other unidentified factors that played a role in the observed correlations. The study can only assert that there are demonstrated correlations as hypothesized from the literature.

Bicultural Identity and Perceived Stigma

Bicultural identity was measured by the BIIS-2 inventory, and perceived stigma was measured by the PDS inventory. A Pearson's *r* correlation test was used to evaluate the hypothesis (There is a positive correlation between bicultural identity and health scores), finding a highly significant, negative correlation, $r = -0.479$, $p < 0.001$. These findings indicated that a higher bicultural identity (Appalachian–American harmony) is associated with lower levels of perceived stigma. The literature supports this correlation, as Appalachians historically report varying levels of perceived stigma or discrimination based on the level of culturally expressed identity or code switching, which is also consistent with the assimilation or acculturation spectrum (Berry, 2017; Dustan & Jaeger, 2016; Engelhardt, 2005; Theobald & Wood, 2010).

Perceived Stigma and Physical/Emotional Health

Perceived stigma was measured by the PDS inventory, and physical health was measured by the SF-36 inventory. The collected data were analyzed with a Pearson's *r* correlation test. The relationship was found to be a highly significant, negative correlation. $r = -0.325$, $p < 0.001$. These findings indicated that a higher perception of stigma is associated with lower levels of physical health and are supported by previous research (Arnaez et al., 2020; Hosley, 2004; Snell-Rood et al., 2017).

Likewise, data on perceived stigma (PDS inventory) and emotional health, also measured by the SF-36 inventory, were collected in order to explore the relationship between these variables. Pearson's *r* correlation test results showed a highly significant negative correlation, $r = -0.436$, $p < 0.001$. These findings indicated that a higher perception of stigma is associated with lower levels of emotional health. While there is no direct research with regard to Appalachian mental health and stigma, the implications of overall health issues are likely to include mental health (Snell-Rood et al., 2017). Research and statistically reported health care demographics also indicate that Appalachians do experience extensively concerning poor health outcomes (Marshall et al., 2017; Thompson et al., 2021).

Bicultural Identity and Physical/Emotional Health

Bicultural identity was measured by the BIIS-2 inventory, and physical and emotional health was measured by the SF-36 inventory. A Pearson's *r* correlation test revealed a significant, positive correlation, $r = 0.163$, $p = 0.027$, for physical health and a significant, positive correlation, $r = 0.334$, $p < .001$) for emotional health. These findings indicated that a higher bicultural identity score is associated with higher levels of holistic

health, which would be consistent with the literature if bicultural identity provides a source of personal resiliency for the participants (Berry, 2017; Toomey et al., 2013). However, given the limits of these inventories, no information is known about how the participants view their identity in terms of protective or risk factors.

Physical and Emotional Health Outcomes

Although the relationship between physical health and emotional health as measured by SF-36 was not directly hypothesized about in this study, a Pearson's *r* correlation test did indicate the presence of a highly significant, positive correlation, $r = 0.663$, $p < .001$. These findings indicated that higher physical health is associated with higher levels of emotional health, which is expected with regard to holistic health markers (Marshall et al., 2017).

Model 1 Summary

In this study, it was hypothesized that perceived stigma would mediate the relationship between bicultural identity and physical/emotional health outcomes. As such, these relationships were explored with a PROCESS 4 Model (A. F. Hayes, 2017). Analysis showed that bicultural identity had no direct effect ($p > .05$) on physical health scores, $b = 0.015$, $SE = 0.113$, 99% CI [–0.239, 0.208], and no direct effect ($p > .05$) on emotional health scores, $b = 0.188$, $SE = 0.098$, CI [–0.005, 0.382]. Furthermore, the findings indicated a significant negative correlation ($p < .001$) between bicultural identity and perceived stigma, $b = -0.833$, $SE = 0.112$, CI [−1.054, −0.613], which supported the hypothesis by indicating that increased bicultural identity relates to decreased perceived stigma. When explored with the Model 4 analysis, the results also indicated a strong negative correlation ($p < .001$) between perceived discrimination and physical health

outcomes, $b = –0.274$, $SE = 0.066$, CI [−0.405, −0.143], and a strong negative correlation ($p < .001$) between perceived stigma and emotional health outcomes, $b = −0.280$, $SE = 0.057$, CI [−0.392, −0.167].

It is of particular note that the mediation model indicated the presence of significant interactions with the mediator (perceived stigma) according to Model 4 PROCESS (A. F. Hayes, 2017). Consistent with these findings, the direct and indirect effects, as presented in Chapter 4, indicated that the model that included perceived stigma as the mediator was statistically significantly better than a model without perceived stigma in terms of predicting an indirect relationship between bicultural identity and health outcomes. The results appear to strengthen the existing literature, as referenced in this chapter, that signify the impact of perceived stigma on holistic health outcomes and overall well-being.

Model 2 Summary

With an intention to embark on exploratory analysis, a PROCESS Model 7 (A. F. Hayes, 2017) was used to explore a possibly moderated, mediated relationship between bicultural identity and perceived stigma. The moderating factors explored were SES, categorized by household income, and educational attainment. The results of this exploration were not statistically significant for bicultural identity interactions (household income, $b = 0.075$, $SE = 0.050$, 99% CI = –0.024, 0.174, and educational attainment, $b = –0.056$, $SE = 0.066$, CI = –0.073, 0.186)]. Furthermore, there were no significant changes in the relationships between bicultural identity, perceived stigma, and health outcomes that were not already accounted for by the Model 4 PROCESS.

While the overall results of adding moderators to the base mediation model were not statistically significant ($p > 0.05$), indicating that these factors do not significantly moderate the relationship, notable outliers were evident. For participants who reported having a master's degree, there were significantly increased reports of both lifetime and daily discrimination scores. Given the parameters of the raw data, it was not possible to make inferences about the variables that contributed to this finding. As such research suggests, it is possible that participants who pursue higher education (as Appalachians) are more exposed to negative situations of discrimination (Morton, 2014; Young et al., 2018). However, the implications of these questions are outside of the scope of this study.

Overall Study Conclusion

As documented in Chapter 4 and elaborated on narratively in this chapter, the major findings from this study are significant. The findings are also consistent with previous literature and historical trends, which provided the foundation for the formation of the research questions. Perceived stigma is a statistically significant mediator in the relationship between bicultural identity and health outcomes. However, it is also clear that this study only produced a fraction of the necessary understanding of Appalachian biculturalism. The exploration of SES and educational attainment further highlights the limitations of both the scope and sample size of this study.

Implications

This study's implications suggest a significant need for ongoing exploration; however, the study findings also have direct clinical implications for mental health counselors and other health care providers serving Appalachian populations. Even if clinicians recognize Appalachia, they likely do not address cultural identity or correlate

perceived stigma with their Appalachian clients as it is currently not standard practice for this population. More concerning is the possibility that unrecognized stigma are unintentionally present in clinical approaches and may contribute to the reduced rates of accessing mental health services or ethically cause harm to Appalachian clients. It is also possible that clinicians unaware of Appalachia's hidden culture may pathologize Appalachia and frame acculturation as clinical well-being or ethical treatment goals.

Regardless, what is known from this research is that clinical professionals need to evaluate potential assumptions or stereotypically based worldviews of Appalachia to work ethically with this population. As current education does not include conversations about dealing with populations such as Appalachia, there are no clear directives or best practices that have been highlighted or developed with ongoing research. No current research exists to reveal health care professionals' views of Appalachia, and it can only be assumed that these viewpoints are also represented by a more holistic summation of the general population (Engelhardt, 2005; Snell-Rood et al., 2017; Thompson et al., 2021). As such, it is imperative to make a case for updated recognition of Appalachia in education for clinical professionals and in promoting ethical standards for engaging with Appalachia. Overall, the findings from this study imply that much work is left to accomplish before amplifying the voices of Appalachia can become a reality.

Limitations

This study had several notable limitations that reflected the nature of a quantitatively designed research study in Appalachia. Participants were first asked to complete the survey digitally by following the provided link to the SurveyMonkey platform. The survey was estimated to take 30 min to complete by the nature of the

inventories selected for this study. The survey length could have limited participant diversity due to competing responsibilities, attention difficulties or fatigue, or even the participants' reading comprehension levels. Relative technology access or technological adaptation variation also may have contributed to reducing the responses from more marginalized groups. For instance, it is of note that there were only three participants who indicated that they had "some high school" for education attainment, and only 15 participants reported they were 65+ years of age.

The study was also limited in terms of the sample itself. Because of the nature of data collection within a reduced time frame (2 weeks from the time of IRB approval) and the convenience sample design, participant variability may have been reduced in the collected raw data. For example, participant demographics did not vary significantly regarding race/ethnicity and religious orientation. The lack of variability likely arose from an overall lack of diversity in Appalachia but may also indicate possible confounding variables outside of the study scope.

Regional-based variety is yet another potential limitation of this study. Just over 84% of the participants reported being born in Central Appalachia (Kentucky, West Virginia, Virginia, and Tennessee). This participant pool leaves questions as to whether the findings could be extended to the broader geographical Appalachian region or if there are in-group differences that are significant between the three subregions of Appalachia. Central Appalachia is often referred to regionally as the heart of Appalachia. There are possible differences in how people identify in terms of their identity and how they perceive external stigma.

Another limitation was that the PDS inventory does not allow gathering information about the severity of lifetime or daily discrimination scores. While participants were evaluated by the overall score of their responses, no data reflected the severity of their experiences. This could be a complication if an individual has a lower PDS score but has experienced fewer severe encounters, as opposed to someone who may have experienced many minor occurrences. Creating or adapting an inventory to address discrimination severity could result in a deeper understanding of these experiences.

Finally, the lack of research reflecting the current study's scope, along with the significant lack of Appalachian-oriented research in general, created natural limitations for this study. As there was a lack of research to inform the development of this study, there are likely other variables that were not considered during the study design or rationale for analysis. Because of the original work addressing bicultural identity in Appalachian, this study cannot address the many other variables likely to be accounting for the missing variability (R^2) as observed in the findings. These limitations are expected for such a study, with the hopes that these limitations are explored by future research.

Recommendations for Future Research

As research on Appalachia is limited, and no previous research on bicultural identity has been conducted regarding this population, it is necessary for future studies to continue to address the unexplored variables. Future research seeking out minority population voices in Appalachia would also help provide a larger context for the current study's findings. As the current study was limited in terms of diversity, adding additional voices to the research would enable a more comprehensive understanding of Appalachian identity and the many nuances that are likely to coexist.

Other research opportunities include using or creating new inventories to better address the selected variables. As Appalachian bicultural identity remains vastly unexplored in the literature, it would be beneficial to consider qualitative methods to assist in developing a specifically Appalachian-focused inventory. An inventory developed in this way would allow future research to better understand the bicultural spectrum and processes for Appalachians. In the current study, no implications could be made for individual participants who scored low on the BIIS-2. Questions remain regarding whether these participants would be classified more in terms of acculturated American or if they are rejecting the dominant Euro-North American culture in favor of their Appalachian culture of origin.

Inventories that also further address how stigma may impact health outcomes would be significant. The question remains if perceived stigma directly reduces overall health outcomes due to discrimination factors or if this variable contributes more to the general lack of resources or health care engagement and thus reduced health outcomes. Overall, there are many potential covariates and potential confounding variables that exist outside of the initial scope of this research. Through exploring the themes and correlations identified during this study, future research could continue to create space in the literature for an essential understanding of Appalachian people and their life experiences.

Finally, this study explored the external impacts of cultural identity and discrimination. Previous research indicated a historical lack of access to services in Appalachia, not all of which can be accounted for by a lack of resources. Internal variables that may contribute to this phenomenon were not explored in this study.

Potential variables may include recognition of the importance of health, mental health influenced by SES variables, or religious or cultural factors that act as barriers for Appalachians with respect to accessing health care services. These more internal variables, as opposed to externally based discrimination or imposed stigma, would be of key interest in future research opportunities.

Summary

This chapter presented a summary of the findings, limitations of the study, recommendations for future research, and clinical implications. The preliminary study results included identifying a strong negative correlation between bicultural identity and perceived stigma and a strong negative correlation between perceived stigma and physical and emotional health outcomes. There was also compelling evidence that perceived stigma mediates the relationship between bicultural identity and physical and emotional health outcomes. All these findings were statistically significant. However, exploration to identify covariates did not indicate significant results. During this exploration, there was an identification of a unique abnormality, with participants who have master's degrees reporting higher rates of discrimination (lifetime and daily) as compared to their peers across the educational attainment spectrum. There is a need for ongoing exploration in this subset of Appalachia, as it is unclear what confounding variables may contribute to statistically unexpected results.

Future research is needed to continue exploring bicultural identity and the correlated variables that were identified in this study. Specific limitations of the study should also be addressed moving forward through more tailored, qualitative studies and inventory development to explore the identified relationship at a deeper level. The results

of these future findings will directly guide future research as well as the related clinical implications, as addressed in this chapter. The clinical implications of this study should inform health care professionals and clinical practitioners to approach Appalachia with a culturally sensitive approach, advocating for additional education and best practices in this regard.

While more information is undoubtedly necessary in terms of the variables of this study, it is essential that research continues to build upon the introductory work of this study. With limited previous research, this study produced a foundation from which future research can be developed to explore bicultural identity in Appalachia more thoroughly. This work will be essential in terms of challenging the external narrative of disdain that is directed toward Appalachia from the broader Euro-American perspective. Instead, the Appalachian culture that arose from a blend of collectivistically minded populations cannot be reduced to markers of poverty or related health outcomes. By giving Appalachian females a voice to address the intersectionality of their bicultural identities, systemic marginalization can be elevated, with the desired outcome resulting in a healthy degree of biculturalism and a reflection of resiliency.

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APPENDIX A: INFORMED CONSENT

Title of the Project: Bicultural Appalachian Females: The Moderating Effect of Perceived Stigma on the Likelihood of Accessing Mental Health Services

Principal Investigator: Victoria Evans-Fulton, Liberty University Doctoral Candidate, School of Behavioral Sciences, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be 18 years of age or older and a self-identifying female within the Appalachian region (407 counties within 13 states) as defined by the Appalachian Regional Commission. Taking part in this research project is voluntary.

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

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

The purpose of the study is to investigate the bicultural identity expression of Appalachian American females, their perception of external stigma based on their Appalachian identity, and their subsequent level of interaction with mental health care services.

What will happen if you take part in this study?

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

1. Participate in an online survey that will take no more than 30 minutes to complete.

How could you or others benefit from this study?

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

Benefits to society include increasing understanding of the issues surrounding collectively silencing female Appalachian voices and the broader external stigma that may further deter Appalachian women from mental health services. With a deeper understanding of the barriers, advocacy could lead the way to long-term change and a positive increase in holistic health outcomes.

What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses to the online survey will be anonymous.
- Data will be stored on a password-locked computer. After seven years, all electronic records will be deleted.

Is the researcher in a position of authority over participants, or does the researcher have a financial conflict of interest?

The researcher serves as a licensed professional counselor at Evans-Fulton Assessment and Consultation, LLC. To limit potential or perceived conflicts, data collection will be anonymous, so the researcher will not know who participated in the study. This disclosure is made so that you can decide if this relationship will affect your willingness to participate in this study. No action will be taken against an individual based on his or her decision to participate or not participate in this study.

Is study participation voluntary?

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

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

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

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

The researcher conducting this study is Victoria Evans-Fulton. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her

at [redacted]. You may also contact the researcher's faculty sponsor, Dr. Fred Volk, at [redacted]

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

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher[s], **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is irb@liberty.edu

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

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of the document for your records. If you have any questions about the study later, you can contact Victoria Evans-Fulton using the information provided above.

APPENDIX B: PERCEIVED DISCRIMINATION SCALE

Perceived Discrimination Scale

This survey accompanies a measure in the SPARQTools.org Measuring Mobility toolkit, which provides practitioners curated instruments for assessing mobility from poverty and tools for selecting the most appropriate measures for their programs.

Age: Adult
Duration: 3-5 minutes
Reading Level: 6th to 8th grade
Number of items: 20
Answer Format: This survey uses multiple answer formats. Please see the scoring instructions below for more information.

Scoring:
The Lifetime Discrimination subscale items are Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q10, and Q11. The answer format for these items is fill in the blank. The Daily Discrimination subscale items are Q12, Q13, Q14, Q15, Q16, Q17, Q18, Q19, and Q20. The answer format for these items is: 1 = often, 2 = sometimes, 3 = rarely, 4 = never.

Lifetime Discrimination: To calculate the score for this subscale, sum the number of items to which the respondent answered that it occurred one or more times.

Daily Discrimination:
Q12, Q13, Q14, Q15, Q16, Q17, Q18, Q19, and Q20 should be reverse-scored. Reverse-scored items are worded in the opposite direction of what the scale is measuring. The formula for reverse-scoring an item is:

((Number of scale points) + 1) - (Respondent's answer)

For example, Q12 is a 4-point scale. If a respondent answered *2* on Q12, you would re-code their answer as: (4 + 1) - 2 = 3.

In other words, you would enter a *3* for this respondents' answer to Q12.

To calculate the score for this subscale, sum all responses for a score ranging from 0 to 36.

Sources:

Williams, D. R., YU, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socioeconomic status, stress and discrimination. *Journal of Health Psychology, 2,* 335-351.

Instructions: How many times in your life have you been discriminated against in each of the following ways because of such things as your race, ethnicity, gender, age, religion, physical appearance, sexual orientation, or other characteristics? Write the number of times each event occurred next to each statement for questions 1-11 and circle your response for questions 12-20.

1. You were discouraged by a teacher or advisor from seeking higher education. ____

2. You were denied a scholarship.____

3. You were not hired for a job.____

4. You were not given a promotion.____

5. You were fired.____

6. You were prevented from renting or buying a home in the neighborhood you wanted.____

7. You were prevented from remaining in a neighborhood because neighbors made life so
uncomfortable.____

8. You were hassled by the police.____

9. You were denied a bank loan.____

10. You were denied or provided inferior medical care.____

11. You were denied or provided inferior service by a plumber, care mechanic, or other service provider.____

12. You are treated with less courtesy than other people.

Often Sometimes Rarely Never

13. You are treated with less respect than other people.

Often Sometimes Rarely Never

14. You receive poorer service than other people at restaurants or stores.

Often Sometimes Rarely Never

15. People act as if they think you are not smart.

Often Sometimes Rarely Never

16. People act as if they are afraid of you.

Often Sometimes Rarely Never

17. People act as if they think you are dishonest.

Often Sometimes Rarely Never

18. People act as if they think you are not as good as they are.

Often Sometimes Rarely Never

19. You are called names or insulted.

Often Sometimes Rarely Never

20. You are threatened or harassed.

Often Sometimes Rarely Never

APPENDIX C: 36-ITEM SHORT FORM SURVEY

OBJECTIVE ANALYSIS.
EFFECTIVE SOLUTIONS.

RAND > RAND Health Care > Surveys > RAND Medical Outcomes Study > 36-Item Short Form Survey (SF-36) >

36-Item Short Form Survey Instrument (SF-36)

RAND 36-Item Health Survey 1.0 Questionnaire Items

Choose one option for each questionnaire item.

1. In general, would you say your health is:

- ○ 1 - Excellent
- ○ 2 - Very good
- ○ 3 - Good
- ○ 4 - Fair
- ○ 5 - Poor

2. **Compared to one year ago**, how would you rate your health in general **now**?

- ○ 1 - Much better now than one year ago
- ○ 2 - Somewhat better now than one year ago
- ○ 3 - About the same
- ○ 4 - Somewhat worse now than one year ago
- ○ 5 - Much worse now than one year ago

The following items are about activities you might do during a typical day. Does **your health now limit you** in these activities? If so, how much?

	Yes, limited a lot	Yes, limited a little	No, not limited at all
3. **Vigorous activities**, such as running, lifting heavy objects, participating in strenuous sports	○ 1	○ 2	○ 3
4. **Moderate activities**, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	○ 1	○ 2	○ 3
5. Lifting or carrying groceries	○ 1	○ 2	○ 3
6. Climbing **several** flights of stairs	○ 1	○ 2	○ 3
7. Climbing **one** flight of stairs	○ 1	○ 2	○ 3
8. Bending, kneeling, or stooping	○ 1	○ 2	○ 3
9. Walking **more than a mile**	○ 1	○ 2	○ 3
10. Walking **several blocks**	○ 1	○ 2	○ 3
11. Walking **one block**	○ 1	○ 2	○ 3
12. Bathing or dressing yourself	○ 1	○ 2	○ 3

During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of your physical health**?

	Yes	No
13. Cut down the **amount of time** you spent on work or other activities	○ 1	○ 2
14. **Accomplished less** than you would like	○ 1	○ 2
15. Were limited in the **kind** of work or other activities	○ 1	○ 2
16. Had **difficulty** performing the work or other activities (for example, it took extra effort)	○ 1	○ 2

During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of any emotional problems** (such as feeling depressed or anxious)?

	Yes	No
17. Cut down the **amount of time** you spent on work or other activities	○ 1	○ 2
18. **Accomplished less** than you would like	○ 1	○ 2
19. Didn't do work or other activities as **carefully** as usual	○ 1	○ 2

20. During the **past 4 weeks**, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?

○ 1 - Not at all

○ 2 - Slightly

○ 3 - Moderately

○ 4 - Quite a bit

○ 5 - Extremely

21. How much **bodily** pain have you had during the **past 4 weeks**?

○ 1 - None

○ 2 - Very mild

○ 3 - Mild

○ 4 - Moderate

○ 5 - Severe

○ 6 - Very severe

22. During the **past 4 weeks**, how much did **pain** interfere with your normal work (including both work outside the home and housework)?

- ○ 1 - Not at all
- ○ 2 - A little bit
- ○ 3 - Moderately
- ○ 4 - Quite a bit
- ○ 5 - Extremely

These questions are about how you feel and how things have been with you **during the past 4 weeks**. For each question, please give the one answer that comes closest to the way you have been feeling.

How much of the time during the **past 4 weeks**...

	All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
23. Did you feel full of pep?	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6
24. Have you been a very nervous person?	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6
25. Have you felt so down in the dumps that nothing could cheer you up?	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6
26. Have you felt calm and peaceful?	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6
27. Did you have a lot of energy?	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6
28. Have you felt downhearted and blue?	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6
29. Did you feel worn out?	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6
30. Have you been a happy person?	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6
31. Did you feel tired?	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6

32. During the **past 4 weeks**, how much of the time has **your physical health or emotional problems** interfered with your social activities (like visiting with friends, relatives, etc.)?

- ○ 1 - All of the time
- ○ 2 - Most of the time
- ○ 3 - Some of the time
- ○ 4 - A little of the time
- ○ 5 - None of the time

How TRUE or FALSE is **each** of the following statements for you.

	Definitely true	Mostly true	Don't know	Mostly false	Definitely false
33. I seem to get sick a little easier than other people	○ 1	○ 2	○ 3	○ 4	○ 5
34. I am as healthy as anybody I know	○ 1	○ 2	○ 3	○ 4	○ 5
35. I expect my health to get worse	○ 1	○ 2	○ 3	○ 4	○ 5
36. My health is excellent	○ 1	○ 2	○ 3	○ 4	○ 5

36-Item Short Form Survey (SF-36) Scoring Instructions

Introduction

The RAND 36-Item Health Survey (Version 1.0) taps eight health concepts: physical functioning, bodily pain, role limitations due to physical health problems, role limitations due to personal or emotional problems, emotional well-being, social functioning, energy/fatigue, and general health perceptions. It also includes a single item that provides an indication of perceived change in health. These 36 items, presented here, are identical to the MOS SF-36 described in Ware and Sherbourne (1992). They were adapted from longer instruments completed by patients participating in the Medical Outcomes Study (MOS), an observational study of variations in physician practice styles and patient outcomes in different systems of health care delivery (Hays & Shapiro, 1992; Stewart, Sherbourne, Hays, et al., 1992).

Scoring Rules for the RAND 36-Item Health Survey (Version 1.0)

We recommend that responses be scored as described below. A somewhat different scoring procedure for the MOS SF-36 has been distributed by the International Resource Center for Health Care Assessment (located in Boston, MA). Because the scoring method described here (a simpler and more straightforward procedure) differs from that of the MOS SF-36, persons using this scoring method should refer to the instrument as RAND 36-Item Health Survey 1.0.

Scoring the RAND 36-Item Health Survey is a two-step process. First, precoded numeric values are recoded per the scoring key given in Table 1. Note that all items are scored so that a high score defines a more favorable health state. In addition, each item is scored on a 0 to 100 range so that the lowest and highest possible scores are 0 and 100, respectively. Scores represent the percentage of total possible score achieved. In step 2, items in the same scale are averaged together to create the 8 scale scores. Table 2 lists the items averaged together to create each scale. Items that are left blank (missing data) are not taken into account when calculating the scale scores. Hence, scale scores represent the average for all items in the scale that the respondent answered.

Item numbers	Change original response category *	To recoded value of:
1, 2, 20, 22, 34, 36	1 →	100
	2 →	75
	3 →	50
	4 →	25
	5 →	0
3, 4, 5, 6, 7, 8, 9, 10, 11, 12	1 →	0
	2 →	50
	3 →	100
13, 14, 15, 16, 17, 18, 19	1 →	0
	2 →	100
21, 23, 26, 27, 30	1 →	100
	2 →	80
	3 →	60
	4 →	40
	5 →	20
	6 →	0
24, 25, 28, 29, 31	1 →	0
	2 →	20
	3 →	40
	4 →	60
	5 →	80
	6 →	100
32, 33, 35	1 →	0
	2 →	25
	3 →	50
	4 →	75
	5 →	100

* Precoded response choices as printed in the questionnaire.

Table 2

Step 2: Averaging Items to Form Scales

Scale	Number of items	After recoding per Table 1, average the following items
Physical functioning	10	3 4 5 6 7 8 9 10 11 12
Role limitations due to physical health	4	13 14 15 16
Role limitations due to emotional problems	3	17 18 19
Energy/fatigue	4	23 27 29 31
Emotional well-being	5	24 25 26 28 30
Social functioning	2	20 32
Pain	2	21 22
General health	5	1 33 34 35 36

Table 3

Reliability, Central Tendency, and Variability of Scales in the Medical Outcomes Study

Scale	Items	Alpha	Mean	SD
Physical functioning	10	0.93	70.61	27.42
Role functioning/physical	4	0.84	52.97	40.78
Role functioning/emotional	3	0.83	65.78	40.71
Energy/fatigue	4	0.86	52.15	22.39
Emotional well-being	5	0.90	70.38	21.97
Social functioning	2	0.85	78.77	25.43
Pain	2	0.78	70.77	25.46
General health	5	0.78	56.99	21.11
Health change	1	—	59.14	23.12

Note: Data is from baseline of the Medical Outcomes Study (N=2471), except for "Health change," which was obtained one year later.